FORM S-1/A

General form of registration statement for all companies including face-amount certificate companies [amend]

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FILER

INTERMOLECULAR INC

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SIC: **3674** Semiconductors & related devices

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As filed with the Securities and Exchange Commission on November 7, 2011

Registration No. 333-175877

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

AMENDMENT NO. 5

TO

FORM S-1

REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

INTERMOLECULAR, INC.

(Exact name of registrant as specified in its charter)

Delaware	**3674**	**20-1616267**
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

3011 N. First Street
San Jose, CA 95134
(408) 582-5700

(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

David Lazovsky
President and Chief Executive Officer
Intermolecular, Inc.
3011 N. First Street
San Jose, CA 95134
(408) 582-5700

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

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Approximate date of commencement of proposed sale to the public:
As soon as practicable after the effective date of this Registration Statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. ☐

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐	Accelerated filer ☐	Non-accelerated filer ☒ (Do not check if a smaller reporting company)	Smaller reporting company ☐

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

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The information in this prospectus is not complete and may be changed. We and the selling stockholders may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and we and the selling stockholders are not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED NOVEMBER 7, 2011

10,000,000 Shares

Common Stock

Intermolecular, Inc. is offering 5,678,615 shares of its common stock, and the selling stockholders identified in this prospectus are offering an additional 4,321,385 shares. The selling stockholders consist of Symyx Technologies, Inc., a significant stockholder, and certain of our executive officers. We will not receive any proceeds from the sale of the shares of common stock to be offered by the selling stockholders. This is our initial public offering and no public market currently exists for our shares. We anticipate that the initial public offering price of our common stock will be between $12.00 and $14.00 per share.

Our common stock has been approved for quotation on The NASDAQ Global Select Market under the trading symbol "IMI."

Investing in our common stock involves risks. See "Risk Factors" beginning on page 12.

	PRICE $ A SHARE			
	Price to Public	Underwriting Discounts and Commissions	Proceeds to Intermolecular	Proceeds to the Selling Stockholders
Per Share	$	$	$	$
Total	$	$	$	$

We have granted the underwriters the right to purchase up to an additional 1,358,728 shares of common stock to cover over-allotments, and certain of the selling stockholders identified in this prospectus have granted the underwriters the right to purchase up to an additional 141,272 shares of common stock to cover over-allotments.

The Securities and Exchange Commission and state securities regulators have not approved or disapproved these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The underwriters expect to deliver the shares of common stock to purchasers on , 2011.

Morgan Stanley **J.P. Morgan**

Barclays Capital

Pacific Crest Securities **Needham & Company, LLC**

The date of this prospectus is , 2011.

Every day, new innovation-driven semiconductor and clean-energy products are improving our communications, entertainment, security, and energy efficiency. These diverse products have one thing in common: they grow out of research and development programs, where ideas are evaluated, refined, and made ready for high-volume production. Our technology platform is designed to accelerate research and development cycles, and is applicable to our customers' products in semiconductor and clean-energy markets.

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Neither we, the selling stockholders nor the underwriters have authorized anyone to provide you with information different from that contained in this prospectus. We take no responsibility for, and can provide no assurance as to the reliability of, any information that others may give you. We, the underwriters and the selling stockholders are offering to sell, and seeking offers to buy, shares of common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date on the front cover of this prospectus, or such other dates as are stated in this prospectus, regardless of the time of delivery of this prospectus or of any sale of our common stock.

Dealer Prospectus Delivery Obligation

Until , 2011 (25 days after commencement of this offering), all dealers that buy, sell, or trade shares of our common stock, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to the obligation of dealers to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus and does not contain all of the information you should consider in making your investment decision. You should read the following summary together with the more detailed information appearing elsewhere in this prospectus, including "Selected Consolidated Financial Data," "Management's Discussion and Analysis of Financial Condition and Results of Operations," "Risk Factors," "Business" and our consolidated financial statements and related notes, before deciding whether to purchase shares of our capital stock. Unless otherwise indicated herein, "Intermolecular, Inc.," "Intermolecular," "the Company," "we," "us" and "our" refer to Intermolecular, Inc. and its subsidiaries.

Our Company

We have pioneered a proprietary approach to accelerate research and development, innovation and time-to-market for the semiconductor and clean-energy industries. Our approach consists of our proprietary high productivity combinatorial (HPC) platform, coupled with our multi-disciplinary team. Through paid collaborative development programs (CDPs) with our customers, we develop proprietary technology and intellectual property (IP) for our customers focused on advanced materials, processes, integration and device architectures. This developed technology enables our customers to bring optimized, high-volume manufacturing-ready integrated devices to market faster and with less risk than traditional approaches to R&D. We provide our customers with the developed proprietary technology through various fee arrangements and grant them rights to associated IP, primarily through royalty-bearing licenses.

We currently target large, high-volume semiconductor and high-growth emerging clean-energy markets, including DRAM, flash memory, complex logic, flat glass, solar cells, LEDs and other energy-efficient technologies with our HPC platform. Within these broad markets, we have engaged in paid programs for 19 customers, including ATMI, Elpida Memory, GLOBALFOUNDRIES, Guardian Industries, SanDisk, Taiwan Semiconductor Manufacturing Company (TSMC) and Toshiba. Each of ATMI, Elpida, SanDisk, Toshiba and GLOBALFOUNDRIES accounted for 10% or more of our revenue for the nine months ended September 30, 2011, and each of ATMI and Elpida accounted for 10% or more of our revenue for the year ended December 31, 2010. ATMI and Elpida have commenced shipping products incorporating technology developed through our CDPs and pay us licensing and royalty fees. To date, we have received the majority of our revenue from customers in DRAM, flash memory, complex logic and energy-efficient applications in flat glass, and have not yet received a material amount of revenue from customers in solar cells, LEDs and other energy-efficient technologies.

Our HPC platform consists of our Tempus HPC processing tools, automated characterization and informatics and analysis software. Our platform is purpose-built for R&D using combinatorial process systems. Combinatorial processing is a methodology for discovery and development that employs parallel and other high-throughput experimentation, which allows R&D experimentation to be performed at speeds up to 100 times faster than traditional methods. Our processing tools allow us to perform up to 192 experiments on a single substrate as compared to traditional methods, which typically allow only a single experiment at a time. Our multi-disciplinary team of approximately 140 scientists and engineers, of whom approximately 55 have Ph.D.s, designs customized workflows for our customers' specific applications using the HPC platform and applies the workflows in collaboration with our customers.

Our business model aligns our interests with those of our customers as we collaborate to develop differentiated proprietary technology and IP for high-volume integrated devices through CDPs. Customers pay us development service fees during multi-year CDPs, which typically last for two years and may range from one to three years. Our customers also receive rights to the technology and IP

developed during the CDPs, and once our customers commercialize products using this technology and IP, they pay us primarily through royalty fees. In certain cases, we sell HPC processing tools to our customers who pay a recurring license fee to operate those tools with our combinatorial processing capabilities. By aligning our interests with those of our customers, we facilitate collaboration and open communication that is more likely to result in innovative, differentiated products and future CDPs with those customers.

We were founded in 2004 and are headquartered in San Jose, California. Our total revenue increased to $38.7 million for the nine months ended September 30, 2011 from $28.5 million for the nine months ended September 30, 2010. Our total revenue increased to $42.7 million for the year ended December 31, 2010 from $26.9 million for the year ended December 31, 2009. Our backlog as of September 30, 2011 was $94.5 million, of which $14.0 million is scheduled to be recognized as revenue during the remainder of the year ending December 31, 2011, and $44.6 million is scheduled to be recognized as revenue during 2012, with the remainder to be recognized in future periods beyond 2012. Our adjusted EBITDA for the nine months ended September 30, 2011 was $4.2 million, and our adjusted EBITDA for the year ended December 31, 2010 was $4.6 million. Our net loss increased to $4.5 million for the nine months ended September 30, 2011 from $2.9 million for the nine months ended September 30, 2010. Our net loss decreased to $1.8 million for the year ended December 31, 2010 from $5.3 million for the year ended December 31, 2009. Since inception, we have incurred net losses leading to an accumulated deficit of $75.0 million as of September 30, 2011.

Industry

High-volume integrated devices serve large and growing markets, including the markets for semiconductors, clean energy (which includes flat glass, solar cells, LEDs, advanced batteries and other energy-efficient technologies) and flat-panel displays. According to IHS iSuppli, the semiconductor market had $304 billion in sales in 2010 and is expected to grow at a compound annual growth rate (CAGR) of 5.7% from 2010 to 2015. Also, based on data from Freedonia Group, GlobalData, IHS iSuppli and MarketsandMarkets, the clean-energy markets had $166 billion in sales in 2010 and are collectively expected to grow at a CAGR of 10.8% from 2010 to 2015.

Success in these markets requires rapid and cost-effective product innovation, fast time-to-market, competitive pricing, production scalability and the ability to achieve specific requirements. Devices in these markets are typically manufactured using thin-film deposition of advanced materials through customized processes that create a specific device architecture. To deliver performance and cost improvements, it is increasingly necessary to evaluate elements in the periodic table that have previously not been used in high-volume manufacturing, and to develop advanced device structures capable of addressing particular application requirements. These device structures must then be scaled and integrated into cost-effective manufacturing processes. In addition, innovation in these markets and control of the resulting IP are critical to enable competitive differentiation.

Existing approaches used to explore new materials, processes, integration and device architectures are complex and time-consuming. Traditionally, device manufacturers have conducted R&D using expensive high-volume manufacturing tools that are not specifically built for that purpose. Production tools can typically only run one process at a time and are required to be taken off high-volume manufacturing lines to perform and evaluate experiments. These high-volume manufacturing environments are not conducive to R&D because these environments require stability to minimize risk and to reduce contamination that the research-based introduction of new materials, tools or processes may cause. In addition to some of the challenges above, certain clean-energy device manufacturers use laboratory-scale tools for R&D, which do not address the scale-up requirements critical to high-volume manufacturing. These factors combine to increase development risks due to long learning cycles, limited data sets, narrow exploration capabilities and slow time-to-market. Moreover, third-party approaches to complement internal R&D typically are not tailored for customer-specific applications, do not offer

proprietary IP or competitive differentiation and do not provide high-volume manufacturing-ready technology.

Traditional R&D approaches are increasingly challenged by the market need to accelerate innovation and time-to-market for the semiconductor and clean-energy industries. Substantially improved methodologies are required to generate the learning cycles necessary to accelerate innovation, improve product development and ensure manufacturing scalability of high-volume integrated devices in these markets. Further, companies require new ways to develop proprietary technology and obtain IP rights to support competitive advantage for their new products.

Our Solution and Benefits to Our Customers

We develop technology and IP rights focused on advanced materials, processes, integration and device architectures in collaboration with our customers. This technology enables our customers to bring optimized, high-volume manufacturing-ready integrated devices to market faster and with less risk than traditional approaches to R&D. Our HPC platform increases R&D productivity because it is purpose-built for R&D and utilizes advanced combinatorial processing systems, which allow experiments to be performed at speeds up to 100 times faster than traditional methods.

The key elements of our HPC platform include the following:

Tempus HPC processing. We use our Tempus HPC processing tools to rapidly process different experiments consisting of various combinations of materials, processing parameters, sequencing and device structures.

Automated characterization. We use automated characterization systems to characterize the substrates processed by our Tempus HPC processing tools, thereby rapidly generating experimental data while matching our processing throughput.

Informatics and analysis software. We use our informatics and analysis software to automate experiment generation, characterization, data analysis and reporting, in each case while matching our processing throughput, and to create an aggregated and searchable database of information that includes the experimental results we generate.

Our differentiated platform solution and approach to collaborative engagements are designed to deliver the following significant benefits to our customers:

Accelerated time-to-market with better, lower-cost products. Faster processing of experiments, throughput-matched characterization and real-time data management and analysis allow additional learning cycles and broader exploration of materials and process solution combinations.

Development of application and manufacturing-ready IP tailored to our customers' specifications. We use our HPC platform and customized workflows to develop IP-protected, proprietary technology that is tailored to our customers' applications and ready for high-volume manufacturing.

Increased R&D productivity and reduced technology risk. We narrow the potential combinations of advanced materials, processes and device architecture solutions through a series of increasingly rigorous screening stages to guide the selection of solutions, which mitigates our customers' technology risk earlier in the development cycle.

Strengths

We have pioneered, developed and patented a proprietary platform and methodology for accelerating R&D in the semiconductor and clean-energy markets. Our strengths include:

Proprietary and patented HPC platform. Our HPC platform employs proprietary and patented combinatorial methods to parallel process up to 192 experiments on a single substrate as compared to traditional methods, which typically allow only a single experiment at a time. As of October 15, 2011, we owned or had exclusive rights within our field of use to 622 U.S. patents and patent applications (some of which also have foreign counterparts), which provide us with a competitive advantage in the use of combinatorial methods and systems in our target markets.

Flexible technology platform configurable for and extendable to multiple markets. Our HPC platform can be configured for many applications and extended to address a broad set of integrated device markets.

Seasoned engineering team with multi-disciplinary expertise. We have assembled a multi-disciplinary team of approximately 140 scientists and engineers, of whom approximately 55 have Ph.D.s, with expertise across various disciplines, fields and technologies, including engineering, materials science, process development and integration, equipment, device process technologies and device integration.

Collaborative customer engagements leading to IP generation and strategic alignment. Our business model aligns our financial interests with those of our customers, to whom we grant rights to proprietary technology and IP developed during our collaborations. This alignment of interests facilitates collaboration and open communication that improves development efficiencies and is more likely to result in innovative, differentiated products and future CDPs with those customers.

Attractive business model with contracted CDP revenue and recurring high-margin royalties. Our multi-year CDPs generate predictable CDP and services revenue from our customers. Our CDPs also establish the terms upon which we will receive recurring licensing and royalty revenue from the sale of our customers' products that incorporate technology developed through our CDPs.

Our Strategy

Our mission is to drive our customers' success by transforming R&D and accelerating innovation in markets that derive competitive advantage from the interaction of materials science, processes, integration and device architecture. To accomplish this, we intend to continue to execute on our strategy, the key elements of which are:

Target large, high-volume semiconductor markets;

Target large, high-growth, emerging clean-energy markets;

Engage with existing and potential market leaders in our target markets;

Create proprietary IP with our customers;

Enhance our HPC platform and multi-disciplinary team; and

Explore and develop new technologies in high-volume integrated devices.

Risks Related to Our Financial Condition and Business

Our business is subject to a number of risks and uncertainties that you should understand before making an investment decision. These risks are discussed more fully in the section of this prospectus entitled "Risk Factors" and include:

We have a limited operating history, which makes it difficult for investors to evaluate our current business and future prospects;

Our operating results may fluctuate from quarter to quarter, which may make it difficult to predict our future performance and may result in volatility in the market price of our common stock if we fail to meet the expectations of public market analysts and investors in these periods;

We have incurred operating losses since our inception and may not be able to achieve or maintain profitability;

We depend on a limited number of customers, which have historically been in the semiconductor industry, and a loss of any of them would adversely affect our business and operating results;

Our rapid growth has presented significant challenges to our management and administrative systems and resources, and we may experience difficulties managing our growth, particularly as we handle the additional responsibilities of becoming a public company, which could adversely affect our business and operating results;

Our business prospects and future growth depend on royalties, which may be difficult to structure and enforce;

Our sales cycles are long, and we commit significant resources to a project before we have any commitment that a potential customer may agree to use our platform. One or more failures to enter into a CDP after we have devoted significant resources to a project could adversely affect our business and operating results;

The semiconductor industry is rapidly changing and an inability to evolve existing products in a timely manner, anticipate trends in technology development and introduce new technologies could adversely affect our business and operating results;

The clean-energy industry is in a very early stage of development, and we may not earn significant revenue from our initiatives in this industry for an extended period, if ever;

If a project to which we have devoted technology and significant resources fails to produce any measurable success or value to our customers in the form of differentiated technology and intellectual property, we may not earn licensing and royalty revenue sufficient to recover the upfront costs and cash invested in the CDP, which could adversely affect our results of operations;

A decline in sales in the end markets for products incorporating technology developed through our CDPs could adversely affect our business and results of operations;

If we are unable to scale our development efforts and secure new CDPs, our growth prospects would be limited and our business and operating results could be adversely affected;

We may not be successful in maintaining and managing CDPs, which would adversely affect our ability to develop successful products and our financial condition and operating results; and

Failure to adequately protect against conflicts of interest and breaches of confidentiality, or failure to convince our customers to grant us access to their proprietary information in light of such risks, would harm our reputation and our relationships with our customers, and our business prospects and operating results would be adversely affected.

Corporate Information

We were originally incorporated as The BEP Group, Inc. in Delaware in June 2004. In November 2004, we changed our name to Intermolecular, Inc. Our principal executive offices are located at 3011 N. First Street, San Jose, California 95134, and our telephone number is (408) 582-5700. Our website address is www.intermolecular.com. Information contained on or accessible through our website is not incorporated by reference into this prospectus, and you should not consider information contained on or accessible through our website to be part of this prospectus.

Our logo, "Intermolecular," "Tempus" and other trademarks or service marks of Intermolecular, Inc. appearing in this prospectus are the property of Intermolecular, Inc. This prospectus contains additional trade names, trademarks and service marks of other companies. We do not intend our use or display of other companies' trade names, trademarks or service marks to imply relationships with, or endorsement or sponsorship of us by, these other companies. Use of such trademarks and service marks in this prospectus may occur without their respective superscript symbols (^{TM} or ^{SM}) to facilitate readability only and does not constitute a waiver of any rights that might be associated with the respective trademarks or service marks.

The Offering

Common stock offered by us	5,678,615 shares (or 7,037,343 shares if the underwriters exercise their over-allotment option in full).
Common stock offered by the selling stockholders	4,321,385 shares (or 4,462,657 shares if the underwriters exercise their over-allotment option in full).
Common stock to be outstanding after this offering	42,256,487 shares (or 43,665,815 shares if the underwriters exercise their over-allotment option in full).
NASDAQ symbol	"IMI"
Use of proceeds	We intend to use the net proceeds received by us from this offering for working capital and other general corporate purposes, including the costs associated with being a public company. If and to the extent the gross proceeds from the sale by Symyx Technologies, Inc. (Symyx) of shares in this offering are less than $67 million, we will use a portion of our net proceeds to satisfy an obligation to Symyx in connection with an agreement for the purchase of IP from Symyx and the termination of related royalty obligations (the Symyx asset purchase transaction). We have also agreed to reimburse Symyx for 50% of their underwriting discounts and commissions. We may also use a portion of the net proceeds to expand our current business through acquisitions of other businesses, products, intellectual property or technologies. Other than as set forth above, we do not have agreements or commitments for any specific acquisitions at this time. We will not receive any proceeds from the sale of the shares of common stock to be offered by the selling stockholders. Please see "Use of Proceeds."
Risk factors	See "Risk Factors" starting on page 12 of this prospectus for a discussion of factors you should carefully consider before deciding to invest in our common stock.

The number of shares of common stock to be outstanding after this offering is based on 36,451,372 shares outstanding as of September 30, 2011 and excludes:

- 8,156,105 shares of common stock issuable upon the exercise of options outstanding, at a weighted average exercise price of $2.35 per share, which include 126,500 shares subject to options that will be exercised in connection with this offering at a weighted average exercise price of $0.33 per share;
- 912,368 shares of common stock issuable upon the exercise of warrants outstanding (not including those to be exercised in connection with the consummation of this offering), at a weighted average exercise price of $5.68 per share; and
- 4,460,226 shares of common stock that will be reserved for future issuance under our 2011 Incentive Award Plan (which include 234,578 shares of common stock previously reserved for future issuance under our 2004 Equity Incentive Plan that will become available for issuance under our 2011 Incentive Award Plan upon the consummation of this offering), as well as any

automatic increases in the number of shares of our common stock reserved for future issuance under this benefit plan.

Except as otherwise indicated, all information in this prospectus assumes:

a 1-for-2 reverse stock split of our common stock to be effected prior to the effectiveness of this registration statement;

that our amended and restated certificate of incorporation, which we will file in connection with the consummation of this offering, is in effect;

the automatic conversion of all outstanding shares of our redeemable convertible preferred stock into 29,230,708 shares of common stock in connection with the consummation of this offering (reflecting a 1-for-2 conversion ratio as a result of the assumed reverse stock split referred to above) and the related conversion of a warrant exercisable for our redeemable convertible preferred stock into a warrant exercisable for common stock;

the cash exercise of certain warrants outstanding to purchase shares of our common stock as of September 30, 2011, resulting in the issuance of 1,313,492 shares of common stock for an aggregate exercise price of approximately $6.4 million; and

no exercise of the underwriters' over-allotment option.

Summary Consolidated Financial Data

The following table sets forth a summary of our historical consolidated financial data for the periods ended or as of the dates indicated. You should read this table together with our consolidated financial statements and the accompanying notes, "Selected Consolidated Financial Data" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" appearing elsewhere in this prospectus. The summary consolidated financial data in this section is not intended to replace our consolidated financial statements and the accompanying notes. Our historical results are not necessarily indicative of our future results. Results for the nine months ended September 30, 2011 are not necessarily indicative of results to be expected for the full year.

	Years Ended December 31,			Nine Months Ended September 30,	
	2008	2009	2010	2010	2011
				(unaudited)	
	(in thousands, except share and per share amounts)				
Consolidated Statement of Operations Data:					
Revenue:					
CDP and services revenue	$ 14,647	$ 14,182	$ 27,705	$ 17,992	$ 26,169
Product revenue	6,206	9,065	6,959	4,935	2,038
Licensing and royalty revenue	2,276	3,663	8,010	5,583	10,491
Total revenue	23,129	26,910	42,674	28,510	38,698
Cost of revenue	12,625	13,018	20,926	13,988	17,999
Gross profit	10,504	13,892	21,748	14,522	20,699
Operating expenses:					
Research and development	11,849	10,983	13,917	10,217	14,601
Sales and marketing	3,849	3,211	4,074	3,056	3,229
General and administrative	4,300	4,867	5,761	4,250	6,156
Total operating expenses	19,998	19,061	23,752	17,523	23,986
Loss from operations	(9,494)	(5,169)	(2,004)	(3,001)	(3,287)
Other income (expense):					
Interest income, net	174	(6)	43	37	16
Other income (expense), net	6	(62)	202	71	(1,174)
Total other income (expense), net	180	(68)	245	108	(1,158)
Loss before provision for income taxes	(9,314)	(5,237)	(1,759)	(2,893)	(4,445)
Provision for income taxes	186	17	19	8	19
Net loss	(9,500)	(5,254)	(1,778)	(2,901)	(4,464)
Accretion on redeemable convertible preferred stock	(5,436)	(9,170)	(14,162)	(10,044)	(8,660)
Net loss attributable to common stockholders	$ (14,936)	$ (14,424)	$ (15,940)	$ (12,945)	$ (13,124)
Net loss per share of common stock, basic and diluted	$ (2.97)	$ (2.62)	$ (2.86)	$ (2.33)	$ (2.30)
Weighted-average number of shares used in computing net loss per share of common stock, basic and diluted(1)	5,024,118	5,511,889	5,567,286	5,555,448	5,716,511
Pro forma net loss per share of common stock, basic and diluted(1)			$ (0.05)		$ (0.11)
Weighted-average number of shares used in computing pro forma net loss per share of common stock, basic and diluted(1)			32,688,160		34,885,617

Other Data:					
Adjusted EBITDA(2)(unaudited)	$ (5,062)	$ 272	$ 4,589	$ 1,740	$ 4,196

	As of September 30, 2011		
	Actual	Pro Forma(3)	Pro Forma as Adjusted(4)
	(unaudited) (in thousands)		
Consolidated Balance Sheet Data:			
Cash, cash equivalents and short-term investments	$ 29,511	$ 35,888	$ 99,210
Working capital	17,190	24,476	75,794
Total assets	73,656	80,033	143,313
Note payable	–	–	15,413
Preferred stock warrant liability	909	–	–
Redeemable convertible preferred stock	80,515	–	–
Accumulated accretion of redeemable convertible preferred stock to redemption values	43,086	–	–
Total stockholders' (deficit) equity	(74,992)	55,895	107,213

(1) Please see Note 9 to our audited consolidated financial statements for an explanation of the calculations of our basic and diluted net loss per share of common stock and pro forma net loss per share of common stock.

(2) The following table presents a reconciliation of adjusted EBITDA to our net loss, the most comparable GAAP measure, for each of the periods indicated:

	Years Ended December 31,			Nine Months Ended September 30,	
	2008	2009	2010	2010	2011
				(unaudited)	
	(in thousands)				
Net loss	$ (9,500)	$ (5,254)	$ (1,778)	$(2,901)	$(4,464)
Non-GAAP adjustments:					
Revenue(a)	–	–	–	–	312
Interest, net	(94)	48	13	(37)	678
Provision for taxes	186	17	19	8	19
Mark-to-market of derivative liability	–	–	–	–	609
Depreciation and amortization	3,430	4,380	4,971	3,642	5,239
Stock-based compensation expense(b)	916	1,081	1,364	1,028	1,803
Adjusted EBITDA (unaudited)	$ (5,062)	$ 272	$ 4,589	$ 1,740	$ 4,196

(a) Reduction in revenue as a result of common stock warrants issued in connection with a customer agreement.

(b) Includes stock-based compensation as follows:

	Years Ended December 31,			Nine Months Ended September 30,	

	2008	2009	2010	2010	2011
				(unaudited)	
			(in thousands)		
Cost of revenue	$ 71	$ 134	$ 285	$ 188	$ 418
Research and development	170	222	204	171	327
Sales and marketing	408	378	422	336	627
General and administrative	267	347	453	333	431
Total stock-based compensation	$ 916	$ 1,081	$ 1,364	$ 1,028	$ 1,803

(3) The pro forma column in the consolidated balance sheet data table above reflects (i) the automatic conversion of all outstanding shares of our redeemable convertible preferred stock into 29,230,708 shares of common stock (reflecting a 1-for-2 conversion ratio as a result of the 1-for-2 reverse stock split of our common stock) immediately before the

consummation of this offering, (ii) the resulting reclassification of accumulated accretion of redeemable convertible preferred stock and preferred stock warrant liability to additional paid-in capital, (iii) the automatic conversion of a warrant exercisable for our redeemable convertible preferred stock into a warrant exercisable for 84,373 shares of our common stock (reflecting a 1-for-2 conversion ratio as a result of the 1-for-2 reverse stock split of our common stock) at an exercise price of $0.89 per share immediately before the consummation of this offering and the resulting reclassification of the preferred stock warrant liability to additional paid-in capital and (iv) the cash exercise of certain warrants outstanding to purchase shares of our common stock as of September 30, 2011 and the resulting receipt of approximately $6.4 million in net proceeds and issuance of 1,313,492 shares of common stock.

(4) The pro forma as adjusted column in the consolidated balance sheet data table above reflects (i) the automatic conversion of all outstanding shares of our redeemable convertible preferred stock into 29,230,708 shares of common stock (reflecting a 1-for-2 conversion ratio as a result of the 1-for-2 reverse stock split of our common stock) immediately before the consummation of this offering, (ii) the resulting reclassification of accumulated accretion of redeemable convertible preferred stock and preferred stock warrant liability to additional paid-in capital, (iii) the automatic conversion of a warrant exercisable for our redeemable convertible preferred stock into a warrant exercisable for 84,373 shares of our common stock (reflecting a 1-for-2 conversion ratio as a result of the 1-for-2 reverse stock split of our common stock) at an exercise price of $0.89 per share immediately before the consummation of this offering and the resulting reclassification of the preferred stock warrant liability to additional paid-in capital, (iv) the cash exercise of certain warrants outstanding to purchase shares of our common stock as of September 30, 2011 and the resulting receipt of approximately $6.4 million in net proceeds and issuance of 1,313,492 shares of common stock, (v) the exercise of options to purchase 126,500 shares of common stock by certain of our executive officers in connection with their sales as part of this offering, and the resulting additional paid-in capital for the aggregate exercise price of $42,250, (vi) the effects of the Symyx asset purchase transaction, which would result in the issuance of a $15.4 million promissory note payable to Symyx in the event Symyx's gross proceeds from this offering are less than $67 million, at an assumed initial public offering price of $13.00 (the midpoint of the price range set forth on the cover page of this prospectus) (where the value of such note is equal to the difference between Symyx's gross proceeds and $67 million) and (vii) the issuance of the shares offered by us in this offering and the net proceeds therefrom at an assumed initial public offering price of $13.00 (the midpoint of the price range set forth on the cover page of this prospectus). In addition, in connection with the consummation of the Symyx asset purchase transaction, (i) we will recognize increased amortization for the amortization of intangible assets acquired, recorded in cost of revenue, of $0.1 million on a quarterly basis, and (ii) in the event we issue a promissory note payable to Symyx, we will recognize (A) interest expense on the promissory note, recorded in interest income (expense), net, at the annual interest rate of 4%, an increase of approximately $150,000 on a quarterly basis, and (B) a mark-to-market change in value of the Symyx purchase right derivative, recorded as a one-time charge in other income (expense), net, in the amount of $(12.0) million.

A $1.00 increase (decrease) in the assumed initial public offering price of $13.00 per share would increase (decrease) the gross proceeds to Symyx by $4.0 million and would (decrease) increase the value of any promissory note payable to Symyx by the same amount. Accordingly, in the event we issue a promissory note payable to Symyx, a $1.00 increase (decrease) in the assumed initial public offering price of $13.00 per share would (i) increase (decrease) interest income (expense), net by approximately $50,000 on a quarterly basis, and (ii) change the mark-to-market change in value of the Symyx purchase right derivative by $4.0 million on a one-time basis. We have also agreed to reimburse Symyx for 50% of their underwriting discounts and commissions and will recognize such expense in operating expense, and a $1.00 increase (decrease) in the assumed initial public offering price of $13.00 per share would increase (decrease) operating expense by $0.1 million. See "Certain Relationships and Related Party Transactions–Symyx" for further details about this transaction.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the following risk factors, as well as the other information in this prospectus, before deciding whether to invest in shares of our common stock. The occurrence of any of the events or circumstances described below or other adverse events could harm our business, financial condition, results of operations and growth prospects. If such an event or circumstance were to occur, the trading price of our common stock may decline and you may lose all or part of your investment. Additional risks or uncertainties not presently known to us or that we currently deem immaterial may also harm our business.

Risks Related to Our Financial Condition and Business

We have a limited operating history, which makes it difficult for investors to evaluate our current business and future prospects.

We were incorporated in June 2004 and do not have a long history of operating results on which you can base your evaluation of our business. We are still proving our business model, and we have not yet demonstrated our ability to generate significant revenue, particularly licensing and royalty revenue. As a result, it may be difficult for public market analysts and investors to evaluate our future prospects. If we do not generate significant licensing and royalty revenue, we may never be profitable. Furthermore, because of our limited operating history and because the semiconductor and clean-energy industries are rapidly evolving, we have limited experience in analyzing and understanding the trends that may emerge and affect our business. If we are unable to obtain significant licensing and royalty revenue from products that incorporate technology developed through our collaborative development programs (CDPs), we will have expended a significant amount of time and resources without obtaining the benefits we anticipated, and our financial condition and results of operations would be materially and adversely affected.

Our operating results may fluctuate from quarter to quarter, which may make it difficult to predict our future performance and may result in volatility in the market price of our common stock if we fail to meet the expectations of public market analysts and investors in these periods.

Our revenue, expenses and operating results have fluctuated, and may in the future fluctuate significantly from quarter to quarter due to a number of factors, many of which are outside our control. Factors that may contribute to these fluctuations include the following, as well as other factors described elsewhere in this prospectus:

- our dependence on a limited number of customers;
- our ability to manage our growth, including an increasing number of employees, customers and CDPs;
- the length of our sales and development cycles, and our ability to generate material revenue after we have devoted significant resources to developing a project;
- our ability to evolve existing products, anticipate trends in technology development and introduce new developments in a timely manner in the rapidly changing semiconductor and clean-energy industries;
- our customers' ability to manufacture, market and sell products that incorporate technology developed through the CDPs;
- fluctuations in the number and price of products sold by our customers that incorporate technology developed through the CDPs, and the shortening life cycles of those products, in each case impacting our licensing and royalty revenue;

our ability to scale our development efforts, our ability to secure new CDPs with new or existing customers and the timing of those CDPs;

the degree to which existing CDPs are completed or expanded;

one-time, non-cash charges to revenue associated with the vesting of contingent warrants issued to two of our customers that are currently outstanding;

our ability to maintain existing commercial terms or enter into new licensing arrangements with our customers once they begin to sell their end products;

our ability to make the substantial research and development (R&D) investments required to stay competitive in our business;

our ability to develop our high productivity combinatorial (HPC) platform and expertise to support our future growth plans in adjacent vertical markets such as clean-energy markets;

any potential involvement in intellectual property litigation;

any potential payments to our customers resulting from our intellectual property indemnification policies and obligations;

our reliance on our customers to deliver timely and accurate information to accurately report our financial results from licensing and royalty revenue;

our potential need for additional capital to finance our business;

any delay in shipments caused by shortages of components incorporated in our customers' products, design errors or other manufacturing problems associated with our customers' products;

the highly cyclical nature of and price volatility in the semiconductor industry;

the emerging and uncertain nature of the clean-energy industry;

potential warranty claims, product recalls and product liability for our HPC tools and for our customers' products that incorporate technology developed through our CDPs;

global or regional economic, political and social conditions; and

business interruptions such as earthquakes and other natural disasters.

Due to these factors and other risks discussed in this section, you should not rely on quarter-to-quarter comparisons to predict our future performance. Our revenue mix may also vary from quarter to quarter as we enter into new CDPs and related customer arrangements, existing CDPs are completed or expanded and licensing and royalty arrangements take effect. Unfavorable changes in any of these factors may adversely affect our business and operating results. Additionally, our common stock could be subject to significant price volatility should our actual or projected revenue or earnings fail to meet the expectations of the investment community. Furthermore, stocks of high technology companies are subject to extreme price and volume fluctuations that are often unrelated or disproportionate to the operating performance of those companies.

We have incurred operating losses since our inception and may not be able to achieve or maintain profitability.

We have generated net losses each year since our inception, including $4.5 million for the nine months ended September 30, 2011 and $1.8 million and $5.3 million for the years ended December 31, 2010 and 2009, respectively. Our accumulated deficit as of September 30, 2011 was $75.0 million. We will need to significantly increase revenue to achieve profitability and we may not achieve or subsequently maintain profitability if our revenue increases more slowly than we expect or not at all. Our ability to achieve our objectives and achieve or maintain the profitability of our business will

depend, in large part, on potential customers accepting our HPC platform and methodology as effective tools in the development of new products; and on our success in helping our customers develop products that are successful in the marketplace. Historically, semiconductor companies have conducted R&D activities internally using traditional research methods. In order for us to achieve our business objectives, we must convince these companies that our technology and capabilities justify collaborating with us on their basic R&D programs. We must also convince potential customers in the clean-energy industry that our HPC platform and approach are useful tools in an emerging industry. We cannot assure you we will achieve the levels of customer acceptance necessary for us to maintain and grow a profitable business. In addition, our profitability and success are dependent, in part, upon the receipt of royalties on the sale of products by our key customers, and we have no ability to control the timing of such products' introduction or their success or failure in the marketplace. Our ability to achieve profitability also depends upon many other factors, including many that are beyond our control. These factors include, without limitation:

- changes in the demand for our products and services;
- the introduction of competitive technologies;
- our ability to engage with new customers that would use our technology and expertise to further develop and commercialize their products;
- our ability to enter into CDPs with customers who are or become market leaders;
- the competitiveness and financial strength of our existing and potential customers;
- changes in the R&D budgets of our customers and potential customers;
- our ability to develop our technology for and secure customers in the clean-energy industry; and
- our participation in the development of products that our customers choose to commercialize that generate a substantial stream of licensing and royalty revenue for us.

In addition, we expect to continue to incur significant expenses or revenue adjustments in connection with, among other things:

- increased R&D spending, including expansion of our R&D teams and workflow platforms;
- expansion of our sales and marketing efforts;
- additional non-cash charges relating to amortization of intangibles and deferred stock compensation; and
- one-time, non-cash charges to revenue associated with the vesting of contingent warrants issued to two of our customers that are currently outstanding.

We cannot assure you we will achieve the levels of customer acceptance necessary for us to maintain and grow a profitable business, or that any of these other factors will be satisfactory. Also, we cannot assure you that customers, even those that accept our HPC platform as a valid tool for R&D, will be satisfied with the integrated devices developed through our CDPs or will be able to successfully commercialize end products incorporating the developed technology. Failure to achieve the necessary customer acceptance or extend or add current or new customer relationships, as well as difficulty with any of these other factors would adversely affect our revenue and profitability and our financial condition and results of operations would be materially and adversely affected.

We depend on a limited number of customers, which have historically been in the semiconductor industry, and a loss of any of them would adversely affect our business and operating results.

Our customer base is highly concentrated. Revenue has historically come from a few customers, and we expect that revenue from a small number of customers will continue to account for a high

percentage of our revenue for the foreseeable future. Due to the concentrated nature of manufacturers in the DRAM, flash memory and complex logic markets, our revenue is and may continue to be concentrated among and reliant upon key high-volume customers. For example, our five largest customers in the nine months ended September 30, 2011, all of which are in the semiconductor industry, accounted for 82% of our revenue, and our two largest customers for the years ended December 31, 2010 and 2009, both of which are in the semiconductor industry, accounted for 72% and 88% of our revenue, respectively. Our largest customer accounted for 30%, 52% and 59% of our revenue in each of these periods, respectively. The loss of any of these customers or a decrease in the manufacturing or sales volumes of their products, or their failure to pay amounts due to us or renew or extend their existing relationships with us, and the related impact on our future anticipated licensing and royalty revenue, would materially and adversely affect our business, financial condition or results of operations, and we may not be able to replace the business from these customers. In addition, this type of loss could cause significant fluctuations in our results of operations because our expenses are fixed in the short term and our sales and development cycle to obtain new customers is long.

Our rapid growth has presented significant challenges to our management and administrative systems and resources, and we may experience difficulties managing our growth, particularly as we handle the additional responsibilities of becoming a public company, which could adversely affect our business and operating results.

We will need to continue to grow in all operational areas and to successfully integrate and support our existing and new employees, which may make it difficult to implement our business strategy in the time frame we anticipate, if at all. Our business has grown rapidly, and we expect this growth to continue as we expand our R&D capacity for current and additional CDPs. For example, we had 204 full-time employees as of September 30, 2011 and 107 employees at the end of 2008. The rapid expansion of our business and addition of new personnel has placed a strain on our management, operational systems and facilities and may continue to do so. To effectively manage our operations and growth as well as our new obligations as a public company, we must continue to expend funds to enhance our operational, financial and management controls, reporting systems and procedures and to attract and retain sufficient numbers of talented employees. If we are unable to expand our R&D capacity and implement improvements to our control systems efficiently and quickly, or if we encounter deficiencies in existing systems and controls, then we will not be able to successfully grow our business as planned. Our future operating results will also depend on our management's ability to:

implement and improve our sales, marketing and customer support programs and our R&D efforts;

enhance our operational and financial control systems;

expand, train and manage our employee base;

integrate any acquired businesses; and

effectively address new issues related to our growth as they arise.

We may not manage our expansion successfully, which could adversely affect our business, financial condition or results of operations.

Our business prospects and future growth depend on royalties, which may be difficult to structure and enforce.

We believe that our royalty-bearing licenses with our customers lay the framework for ongoing royalty revenue from our customers' products that incorporate technology developed through our CDPs with these customers, and that this revenue stream will increase as revenue from products developed using our platform increases. We are dependent upon our ability to structure, negotiate and enforce agreements for the determination and payment of royalties. Unless we adequately demonstrate the value of our platform to our potential customers we may face resistance to structuring royalty arrangements in the future that are acceptable to us, or our customers may not agree to enter into

royalty-bearing licenses with us at all. If we are unable to maintain the royalty-bearing license aspect of our business model, our operating results would suffer and we may not achieve profitability.

Our sales cycles are long, and we commit significant resources to a project before we have any commitment that a potential customer may agree to use our platform or service. One or more failures to enter into a CDP after we have devoted significant resources to a project could adversely affect our business and operating results.

Our sales efforts require us to educate our potential customers about the benefits of our solutions, which often requires significant time and expense, including a significant amount of our senior management's time and effort. Our sales cycles to date have typically ranged from 9 to 24 months and may be even longer in the future. Furthermore, we need to target those individuals within a customer's organization who have overall responsibility for the profitability of their products. These individuals tend to be senior management or executive officers. We may face difficulty identifying and establishing contact with these individuals. In addition, our customers' technology and product pipeline are highly confidential and they may choose to withhold certain information from us during the sales cycle to protect their own proprietary technology. Our ability to implement our HPC platform and methodology is heavily dependent upon the information provided to us by our customers. If our customers reveal the complexities of their specifications after we enter into a CDP with them, that complexity may cause delays unanticipated at the time we entered into the program. During our sales cycles, we incur significant expenses and, in many cases, may begin to build, configure or expand new systems, develop software and design workflows to meet our customers' requirements prior to obtaining contractual commitments, without any assurance of resulting revenue. Where a potential customer engagement requires a new dedicated HPC platform, we may invest in new HPC capacity ahead of a customer commitment. Our HPC platform build, configuration and customization cycles to date have ranged from three to nine months and may be even longer in the future. Investment of time and expense in a particular customer engagement that does not ultimately result in material revenue will adversely affect our revenue and results of operations. Other factors impacting sales and the length of our sales and development cycles include, but are not limited to, the following:

- the complexity and cost of our HPC platform and difficulties we may encounter in meeting individual customer specifications and commitments;
- our ability to build, configure or expand new systems, develop software and design workflows to meet our customers' requirements;
- the limited number of customers that are appropriate sales targets for our platform and that are willing to enter into licensing agreements with us;
- our customers' budgetary constraints and internal review procedures that must be completed to begin collaboration with us; and
- the cultural transition required for a customer's internal R&D team to embrace us as a collaborative partner.

The semiconductor industry is rapidly changing and an inability to evolve existing products in a timely manner, anticipate trends in technology development and introduce new technologies could adversely affect our business and operating results.

We must continually devote significant engineering resources to keep up with the rapidly evolving technologies, materials and equipment used in semiconductor design and manufacturing processes. These innovations are inherently complex and require long development cycles. The semiconductor industry is subject to a number of evolving trends, including:

- the growing varieties of semiconductor architecture, applications and processes;

differing market growth rates and capital requirements for different applications, such as flash memory, DRAM, logic and foundry, and the resulting effect on customers' spending patterns and on our ability to compete in these market segments;

the importance of growing market positions in larger market segments;

the increasing consolidation of semiconductor manufacturing towards foundries and large scale manufacturers and subsequent concentration of research and innovation in manufacturing process development; and

the cost, technical complexity and timing of a proposed industry transition from 300mm to 450mm wafers.

These and other changes could have a material impact on our business. Not only do we need the technical expertise to implement the changes necessary to keep our technologies current, but we also rely heavily on the judgment of our management and advisors to anticipate future market trends. Our customers expect us to stay ahead of the technology curve in their sectors and expect that the technology developed through our CDPs will help them develop new products that keep pace with or push the limits of technological innovation. If we are not able to accurately predict industry changes, or if we are unable to apply our HPC platform to our customers' needs on a timely basis, our existing solutions will be rendered obsolete and we may lose customers. If we do not keep pace with technology, our existing and potential customers may choose to develop their own solutions internally as an alternative to ours, and we could lose market share to competitors, which could adversely affect our operating results.

The clean-energy industry is in a very early stage of development, and we may not earn significant revenue from our initiatives in this industry for an extended period, if ever.

Most sectors of the clean-energy industry are in the very early stages of development. Many of the associated technologies have not yet achieved commercial viability in comparison to available alternatives, and may never achieve market adoption. Many of the associated technologies will require substantial investments of capital to achieve scale, which may not be available on attractive terms, if at all. Companies within the clean-energy industry may also be hesitant to enter into CDPs with us given our recent entry into the clean-energy industry. Certain technologies may depend on government subsidies to be commercially viable, and those subsidies may not be available from federal and state governments facing increasing financial constraints. If sectors of the clean-energy industry take an extended period to achieve market acceptance and to garner significant revenue, we may not earn material revenue from our initiatives in this area until such time, if ever. Furthermore, it may be difficult for us to predict which clean-energy companies may become market leaders, and we may invest time and resources in collaborations with companies who are ultimately unsuccessful in the clean-energy industry, which could adversely affect our operating results.

If a project to which we have devoted technology and significant resources fails to produce any measurable success or value to our customers in the form of differentiated technology and intellectual property, we may not earn licensing and royalty revenue sufficient to recover the upfront costs and cash invested in the CDP, which could adversely affect our results of operations.

In some cases, the revenue we receive from our customers during the development stage is not sufficient for us to fully recover our costs and cash invested in HPC platforms dedicated to customer engagement, and our business model relies on licensing and royalty revenue based on the sales by our customers in the end-markets of products incorporating the technology developed through our CDPs. Our CDPs involve complex R&D, and our ability to develop the differentiated technology and intellectual property sought by our customers is inherently uncertain and difficult to predict. In addition, there are a limited number of CDPs to which we can commit our resources at any given time.

If a project to which we have devoted technology and significant resources fails to produce any measurable success or value to our customers in the form of differentiated technology and intellectual property that they may use in their products, we may not receive meaningful amounts of, or any, licensing and royalty revenue. In this case, we may not recover the upfront costs and cash invested in the CDP, which could adversely affect our results of operations. In addition, even if we successfully develop differentiated technology and intellectual property through a CDP that our customer is able to commercialize, there may be a significant delay before we receive any licensing or royalty revenue due to the complexities inherent in production and manufacturing in our target markets.

A decline in sales in the end markets for products incorporating technology developed through our CDPs could adversely affect our business and results of operations.

Our success is tied to our customers' ability to successfully commercialize the products that incorporate technology developed through our CDPs. The markets for our customers' products are intensely competitive and are characterized by rapid technological change. These changes result in frequent product introductions, short product life cycles and increased product capabilities. Competition is based on a variety of factors including price, performance, product quality, software availability, marketing and distribution capability, customer support, name recognition and financial strength. Products incorporating the technology developed through our CDPs may not achieve market success or may become obsolete. We cannot assure you that our customers will dedicate the resources necessary to promote and commercialize products developed through our CDPs, successfully execute their business strategies for such products, be able to manufacture such products in quantities sufficient to meet demand or cost-effectively manufacture products at high volume. Our customers are not contractually obliged to manufacture, distribute or sell any products incorporating our CDP-developed technology. Our customers may develop internally or in collaboration with others technology that they might utilize instead of technology developed through our CDPs. Any of these factors, as well as more general market or industry issues, could result in a decline in sales of the products incorporating our technology, which would result in a decrease in any associated licensing and royalty revenue or the failure of any licensing and royalty revenue to materialize at all, and could adversely affect our business and results of operations. Any failure of a customer to achieve market success for products developed through our CDPs could also negatively affect such customer's willingness to work with us on other collaborations and could more generally harm our reputation and business prospects.

If we are unable to scale our development services and secure new CDPs, our growth prospects would be limited and our business and operating results could be adversely affected.

Our customers require a significant amount of individualized attention as well as dedicated lab space for CDPs. We have limited space and internal capacity, both in terms of personnel as well as capital equipment resources, to meet these types of demands for our customers. In addition, because of the significant confidentiality concerns associated with the projects and products we work on and the restrictions on resource and information sharing we have implemented in response, we are not able to fully capitalize upon economies of scale. If the demand for our services and products exceeds our capacity to meet such demand, we may be required to turn down potential opportunities, which would cause us to lose potential revenue, and our potential customers may take their business to a competitor or decide to develop or expand internal R&D capabilities. If we are unable to scale our development services to meet demand, our growth may be hindered and our business and operating results could be adversely affected.

We may not be successful in maintaining and managing CDPs, which would adversely affect our ability to develop successful products and our financial condition and operating results.

CDPs are complex and time-consuming to implement and they may require substantial resources to maintain. We may not be successful in all of our collaboration efforts and may fail to achieve the

technological innovations sought by our customers in a reasonable amount of time or at all. When we collaborate with a customer, we rely to some degree on the efforts and resources of that customer. Our customers may not devote sufficient resources to collaborations or may otherwise fail in the aspects of the collaboration for which they are responsible. Disagreements over the implementation and management of the program may occur, which could lead to material delays and/or a failure to achieve the successful development of technology through the CDP. If we fail to achieve successful collaborations, or if our customers are dissatisfied with the results of or the way we design and manage a CDP, our operating results and financial condition would be materially and adversely affected.

Our strategy includes conducting proprietary R&D efforts in collaboration with and on behalf of multiple customers. Failure to adequately protect against potential conflicts of interest and breaches of confidentiality would harm our reputation and our relationships with our customers, and our business prospects and operating results would be adversely affected. Moreover, some potential customers may hesitate to grant us access to their proprietary information, which could impair our ability to provide value for such customers.

Our strategy includes conducting proprietary R&D efforts in collaboration with and on behalf of customers who in some cases may have overlapping interests and technologies. We seek to structure our collaborative agreements and business practices to minimize any potential conflicts and the possibility of any breaches of confidentiality. We may need access to some of our customers' proprietary information, and they may be reluctant to share it with us because of the risk of a potential conflict between us and/or our customers and other potential customers and the risk of a breach of confidentiality. Our failure to do so could result in our inability to attract new customers or retain existing customers, or lead to our having incomplete information with respect to existing customers that could impair our ability to fully address the customers' needs and demonstrate the value of our technology to the customers. Even if we make significant efforts to isolate each development activity, we may fail to meet the contractual confidentiality commitments as to one or more customers. Moreover, even if we meet these commitments, conflicts between a customer and us, or between or among customers, could nevertheless arise. In either event, we may become involved in a dispute with our customers regarding the solutions developed during the collaboration or the rights to these solutions, including possible litigation. Disputes of this nature could harm the relationship between us and our customers, and could adversely affect our ability to enter into new CDPs and cause our revenue and operating results to decline.

We may be unable to make the substantial R&D investments required to remain competitive in our business.

The semiconductor and clean-energy industries require substantial investment in R&D to develop and bring to market new and enhanced technologies and products. To remain competitive, we anticipate that we will need to maintain or increase our levels of R&D expenditures to keep pace with the development efforts of our customers. We expect R&D expenses to increase in absolute dollars for the foreseeable future, due to the increasing complexity and number of solutions we plan to develop both for our customers and internally, the expansion of our customer base and any associated increase in upfront R&D costs. In addition, the ultimate success of products incorporating our technology will depend in part on significant continued investment in R&D by our customers. We do not know whether we or our customers will have sufficient resources to maintain or increase the level of investment in R&D required to remain competitive. In addition, we cannot assure you that the technologies, products and applications on which we and our customers have focused our R&D expenditures will become commercially successful. If we are required to invest significantly greater resources than anticipated in our R&D efforts without a corresponding increase in revenue, our operating results could be materially and adversely affected.

If we are unable to develop our platform and expertise to support our future growth plans, our business and operating results could be adversely affected.

We intend to further develop and broaden our HPC platform, including our software and informatics capabilities, to address a wider range of markets and customers for multiple applications within semiconductors, flat glass, solar cells, light emitting diodes (LEDs), flat-panel displays, advanced batteries and other energy-efficient technologies. However, we have limited expertise and experience in certain of these fields, and if we are unable to develop our platform and expertise to support these fields our business growth might be limited, and our business and operating results could be adversely affected.

If we lose one or more of our key personnel without obtaining adequate replacements in a timely manner or if we are unable to retain and recruit skilled personnel, our operations could become disrupted and the growth of our business could be delayed or restricted.

Our success depends, in large part, on the continued contributions of our senior management team, in particular, the services of Mr. David Lazovsky, our President and Chief Executive Officer, and Dr. Tony Chiang, our Chief Technology Officer. If we lose the services of Mr. Lazovsky or Dr. Chiang, it could slow the execution of our business plan, hinder our development processes and impair our sales efforts, and searching for a replacement could divert our other senior management's time and increase our operating expenses. In addition, our customers could become concerned about our future operations, which could harm our reputation.

None of our senior management is bound by written employment contracts to remain with us for a specified period. The loss of any of our senior management could harm our ability to implement our business strategy and respond to the rapidly changing market conditions in which we operate. Upon hiring or promotion, new senior management personnel must spend a significant amount of time learning our technology, business model and management systems and their new roles, in addition to performing their regular duties. Accordingly, until new senior personnel become familiar with our technology, business model and systems or with their new roles, we may experience some disruption to our ongoing operations. Moreover, the loss of a member of our senior management or our professional staff would require the remaining management to divert attention to seeking a replacement.

Our future success and competitiveness depends on our ability to retain and motivate our unique team of highly skilled scientists and engineers, who have expertise across various disciplines, fields and technologies, including engineering, materials science, process development and integration, equipment, device process technologies and device integration. In addition, as we grow, we will have to continue to retain, attract and motivate qualified and talented personnel, including our scientists and engineers, management, sales and marketing and legal and finance personnel. Because our CDPs are customer-specific and project-specific and last for a significant period of time, the loss of key scientists or engineers or other personnel could have an adverse effect on a particular development program and on our ability to deliver results to a customer in a timely manner or at all. We do not know whether we will be able to retain all of these employees as we continue to pursue our business strategy. Competition for personnel is intense in the semiconductor and clean-energy industries.

We may encounter difficulties in hiring qualified scientists and engineers because there is a limited pool of scientists and engineers with the specialized expertise required to understand and implement our platform in conjunction with our customers. Further, we may have difficulty in obtaining visas permitting entry for some of our employees who are foreign nationals into the United States, and delays in obtaining visas permitting entry into other key countries for several of our key personnel, which could disrupt our ability to strategically locate our personnel. The loss of the services of key employees or our inability to retain, attract and motivate qualified scientists and engineers could have a material adverse effect on our business, financial condition and results of operations.

Following the consummation of this offering, we may have a financial obligation to Symyx Technologies, Inc.

In connection with an agreement for the purchase of intellectual property and the termination of our royalty obligations under an existing license agreement, we have an obligation to issue a promissory note to Symyx Technologies, Inc. (Symyx), a wholly-owned subsidiary of Accelrys, Inc., upon the consummation of this offering to the extent the gross proceeds from Symyx's sale of 3,968,204 shares in this offering on an as-converted basis (before deducting underwriting discounts and commissions and estimated offering expenses) are less than $67 million. At an assumed initial public offering price of $13.00 per share (the midpoint of the price range set forth on the cover page of this prospectus) the gross proceeds from the sale of Symyx's shares would be $51.6 million, and we would have a $15.4 million obligation to Symyx. A $1.00 increase (decrease) in the assumed initial public offering price of $13.00 per share would increase (decrease) the gross proceeds to Symyx by $4.0 million. Such note, if issued, would have a term of 24 months and an interest rate equal to 4%. Such note would be payable in an amount equal to the lesser of the principal amount and the greater of $500,000 per quarter or the amount of accrued interest, with a balloon payment at maturity if applicable. Such note would also be pre-payable by us at any time without penalty or premium, and would be secured by tangible personal property, excluding intellectual property. If we issue such note, a portion of the net proceeds of this offering received by us would be used to make payments of scheduled interest and payment of principal at any time at or prior to maturity. Such financial obligation would limit our ability to use the net proceeds of this offering for other purposes.

We may be unable to effectively protect our intellectual property, which would negatively affect our ability to compete.

We depend on our proprietary HPC platform for our success and ability to compete. If others are able to reproduce our technology, our business will suffer significantly unless we can prevent them from competing with us. As of October 15, 2011, we owned 110 U.S. patents and patent applications (some of which also have foreign counterparts) and had other exclusive rights within our field of use from a license granted to us by Symyx regarding combinatorial methods and systems, which together we believe protect our rights in our HPC platform. While we continue to file patent applications to seek protection for the further evolution of our HPC platform, patent laws provide only limited protection. We cannot assure you that all maintenance fees have been paid or that all filings have been made with the appropriate regulatory or governmental authorities with respect to any IP registered or applied for outside of the U.S. that we purchase. Also, patent protection in foreign countries may be limited or unavailable where we need this type of protection. A more detailed description of how we protect our IP is set forth in the section entitled "Business−Intellectual Property."

The patent positions of technology companies, including ours, are often uncertain and involve complex legal and factual questions. We will be able to protect our proprietary rights from unauthorized use by third parties only to the extent that our proprietary technologies are covered by valid and enforceable patents or are effectively maintained as trade secrets. We apply for patents covering our HPC platform and further advancements of our HPC platform as we deem appropriate. However, we may not obtain patents on all inventions for which we seek patents, and any patents we obtain may be challenged (both before and after any such patents issue) and may be narrowed in scope or extinguished as a result of these challenges. Additional uncertainty may result from the recent and potential future passage of patent reform legislation by the United States Congress, legal precedent as handed down by the United States Federal Circuit and Supreme Court as they determine legal issues concerning the scope and construction of patent claims and inconsistent interpretation of patent laws by the lower courts. For these reasons, among others, our existing patents and any future patents we obtain may not be sufficiently broad to prevent others from practicing our technologies or from developing similar or superior products. In that case, our revenue and operating results could decline.

Our strategy includes obtaining patent protection for technology developed in collaboration with our customers. A portion of our revenue from our customers derives from the licenses granted to our customers under these patents. If we are unable to obtain this type of protection, we would not be able to enforce exclusive rights to the technologies in question, and our revenue and operating results could decline.

We have developed in the past, and may develop in the future, patented technology with U.S. federal government funding. When new technologies are developed with U.S. government funding, the government obtains certain rights in any resulting patents, including a nonexclusive license authorizing the government to use the invention for non-commercial purposes. These rights may permit the government to disclose our confidential information to third parties and to exercise "march-in" rights to use or allow third parties to use our patented technology. The government can exercise its march-in rights if it determines that action is necessary because we fail to achieve practical application of the U.S. government-funded technology, because action is necessary to alleviate health or safety needs, to meet requirements of federal regulations, or to give preference to U.S. industry. In addition, U.S. government-funded technology may be subject to restrictions on transfer to foreign entities, and some U.S. government-funded data may be subject to public disclosure under the Freedom of Information Act.

Many of our customers and competitors have significant operations outside the United States. Foreign laws may not afford us sufficient protections for our intellectual property, however, and we may not always seek patent protection outside the United States. We believe that our success depends, in part, upon our ability to obtain international protection for our IP. However, the laws of some foreign countries may not be as comprehensive as those of the United States and may not be sufficient to protect our proprietary rights abroad. Accordingly, our international competitors could obtain foreign patent protection for, and market overseas, products and technologies for which we are seeking patent protection in the United States.

Confidentiality agreements with employees and others may not adequately prevent disclosures of trade secrets and other proprietary information.

We rely in part on trade secret protection to protect our confidential and proprietary information and processes. However, trade secrets are difficult to protect. We have taken measures to protect our trade secrets and proprietary information, but these measures may not be effective. We require new employees and consultants to execute confidentiality agreements upon the commencement of an employment or consulting arrangement with us. These agreements generally require that all confidential information developed by the individual or made known to the individual by us during the course of the individual's relationship with us be kept confidential and not disclosed to third parties. These agreements also generally provide that inventions conceived by the individual in the course of rendering services to us shall be our exclusive property. Nevertheless, employees, collaborators or consultants may still disclose or misuse our confidential information, and we may not be able to meaningfully protect our trade secrets. In addition, others may independently develop substantially equivalent information or techniques or otherwise lawfully gain access to our trade secrets, and thereafter communicate this information to others without maintaining its confidentiality. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain trade secret protection could adversely affect our competitive business position.

Significant litigation over intellectual property in the industry may cause us to become involved in costly and lengthy litigation, which could subject us to liability, require us to stop licensing our developed technology or force us to develop new technology.

Whether or not patents are granted to us, litigation may be necessary to enforce our IP rights, to defend against a claim of infringement of IP rights of others or to determine the validity and scope of the proprietary rights of others. Because infringement is a fact-intensive inquiry, and because patent applications in the United States and many foreign jurisdictions are typically not published until eighteen months after filing (or, in some cases, are not published until they issue as patents), we cannot be certain that we do not now, and will not in the future, infringe a third party's patent rights. We may also become party to claims by our customers to IP rights developed by us in connection with a CDP. If our customers become involved in disputes with third parties over allegations that our customers' practice of our IP rights infringes the IP rights of such third parties, it may also become necessary for us to become involved in such disputes.

Any claim, even if without merit, could be time consuming to defend, result in costly litigation, or require us to enter into licensing agreements, resulting in unexpected operating costs. Moreover, our opponents in any litigation may have significantly more resources with which to defend against or assert claims in the litigation. A successful claim of infringement against us in connection with the use of our technologies could force us to stop using our technologies that incorporate the infringed IP; pay substantial monetary damages or royalties; grant cross-licenses to third parties relating to our own IP; obtain a license from the owner of the infringed IP, which may not be available to us on acceptable terms or at all; or re-engineer our platform or products to avoid further IP infringement, which may be technically impossible or commercially infeasible. The occurrence of any of these eventualities could adversely affect our business Even if we are successful in defending such a claim, litigation could also divert our resources, including our managerial and engineering resources. Any infringement claim or other litigation against or by us could have a material negative effect on our business.

Our intellectual property indemnification policies and obligations may adversely impact our business and operating results.

Any assertion by a third party asserting ownership or other rights to technology developed through our CDPs could result in our customers becoming the target of litigation and we may be bound to indemnify our customers under the terms of our license agreements. These obligations could result in substantial expenses to us, which could have a material adverse effect on our business, financial condition and results of operations. In addition to the time and expense required for us to satisfy our support and indemnification obligations to our customers, any litigation could severely disrupt or shut down the business of our customers, which in turn could damage our relations with them and have a material adverse effect on our reputation, business, financial condition and results of operations.

We will need to rely on our customers to deliver timely and accurate information to accurately report our financial results from licensing and royalty revenue in the time frame and manner required by law.

We will need to receive timely, accurate and complete information from our customers to accurately report our financial results on a timely basis. Licensing and royalty revenue we may receive in the future may be based on the revenue from the sale of our customers' products that incorporate technology developed through our CDPs, and we will need to rely on our customers to provide us with complete and accurate information regarding revenue and payments owed to us on a timely basis. If the information that we receive is not accurate, we may not receive the full amount of revenue that we are entitled to under these arrangements on a timely basis, which could result in adjustments to our financial results in a future period. Although we typically have audit rights with these parties, performing this type of audit could be harmful to our collaborative relationships, expensive and

time-consuming and may not be sufficient to reveal any discrepancies in a timeframe consistent with our reporting requirements.

We may need additional capital in the future to finance our business.

Our future capital requirements may be substantial, particularly as we continue to develop our business and expand our collaborative development efforts. Although we believe that, based on our current level of operations and anticipated growth, our existing cash, cash equivalents and marketable securities, combined with the net proceeds from this offering, will provide adequate funds for ongoing operations, planned capital expenditures and working capital requirements for at least the next 12 months, we may need additional capital if our current plans and assumptions change. Our need for additional capital will depend on many factors, including the financial success of our business, whether we are successful in obtaining payments from customers, whether we can enter into additional collaborations, the progress and scope of collaborative R&D projects performed by us and our customers, the effect of any acquisitions of other businesses or technologies that we may make in the future, the filing, prosecution and enforcement of patent claims, how quickly we expand, how much we need to develop or enhance our solutions or HPC platform and any necessary responses to competitive pressures.

If our capital resources are insufficient to meet our capital requirements, and our revenue is insufficient to support any of these activities, then we will have to raise additional funds. If future financings involve the issuance of equity securities, our then-existing stockholders would suffer dilution. If we raised additional debt financing, we may be subject to restrictive covenants that limit our ability to conduct our business. We may not be able to raise sufficient additional funds on terms that are favorable to us, if at all. If we fail to raise sufficient funds and continue to incur losses, our ability to fund our operations, take advantage of strategic opportunities, develop products or technologies or otherwise respond to competitive pressures could be significantly limited. If this happens, we may be forced to delay or terminate R&D programs, curtail or cease operations, obtain funds through collaborative and licensing arrangements that may require us to relinquish commercial rights, or grant licenses on terms that are not favorable to us. If adequate funds are not available, we may not be able to successfully execute our business plan or continue our business.

Failure of suppliers to timely deliver sufficient quantities of the components, materials or software used in our collaborations, may result in delays or other disruptions in executing our CDPs, which could adversely affect our business and operating results.

We have historically relied on a small number of contract manufacturing companies for the manufacture and assembly of a majority of our HPC tools. While we are not dependent on any single contract manufacturing company, key parts of our tools are currently available only from a limited number of sources. In addition, components of our capital equipment are available from only a few suppliers. If supplies from these vendors are delayed or interrupted for any reason, we may not be able to get equipment or components for our tools or our own research efforts in a timely fashion or in sufficient quantities or under acceptable terms, if at all. Even though alternative sources of supply would be available, it could be time-consuming and expensive for us to qualify new vendors and work with them to integrate our designs into the tools they manufacture for us. In addition, we depend upon our vendors to provide components of appropriate quality and reliability. Consequently, if supplies from these vendors were delayed or interrupted for any reason, it could materially and adversely affect our business.

Our business strategy requires us to evaluate, integrate and develop elements of our customers' value chains, including development and manufacturing processes. Our ability to evaluate these effectively may sometimes depend on the cooperation from our customers' materials suppliers and equipment manufacturers as well as access to their data and tools. If these third parties do not cooperate with us or provide us access to the necessary materials, tools or equipment we may not be able to deliver effective solutions to our customers, which would adversely affect our business and results of operations.

We have to evaluate multiple elements of our customers' value chains to help them test and develop end products that meet their specifications, including the materials, tools and equipment used by them during the manufacturing process. Our ability to evaluate a customer's value chain effectively may sometimes depend on cooperation from such customer's materials suppliers and equipment manufacturers and on access to their data and tools. Our evaluation of the materials and equipment in the value chain must be unbiased to maintain credibility with our customers, and our evaluation sometimes results in recommendations that our customers change materials, tools or equipment. Our recommendations may negatively impact our relationships with materials and tool providers and equipment manufacturers. Tensions in our relationships with these providers and manufacturers may cause these parties to limit or deny our access to their newest materials and equipment, which would in turn limit our ability to complete our development activities with our customers or control the quality of the combinatorial methods applied to their development efforts, which would adversely affect our business and operations.

If we cannot compete successfully in our industry, our results of operations and financial condition would be adversely affected.

Competition in our market may intensify in the future, which could slow our ability to grow or execute our strategy and could lead to increased pricing pressure, negatively impacting our revenue. Our current and potential customers may choose to develop their own combinatorial development methods internally, particularly if we are slow in deploying our solutions or improving them to meet market needs. We currently face indirect competition from the internal R&D groups at integrated circuit (IC) companies, particularly those of our customers who work with us to develop knowledge of combinatorial methods and who may then use our methods independently. Our customers do not license our technology exclusively, and several of them also design, develop, manufacture and market semiconductor projects based on their own or other architectures and develop their own intellectual property internally. They often compete with each other and with us in various applications. Our customers are generally much larger and have significantly greater resources than us. We also face indirect competition from university collaborations, consortia and alliance partnerships. In addition, there may be other providers of high-throughput empirical solutions for the design of and R&D relating to integrated devices of which we are not aware and there may be new entrants to the industry in the future, particularly if acceptance of these solutions grows. In addition, we believe that the demand for solutions that address the need for better integration between the design and manufacturing processes may encourage direct competitors to enter into our market. Other potential competitors include fabrication facilities that may decide to offer solutions competitive with ours as part of their value proposition to their customers. If these potential competitors change the pricing environment or are able to attract industry partners or customers faster than we can, we may not be able to grow and execute our strategy as quickly or at all.

The semiconductor industry is highly cyclical, subject to price volatility, difficult to predict and subject to significant downturns.

Currently, the substantial majority of our revenue is dependent upon the overall condition of the semiconductor industry, especially in light of the licensing component of our revenue. The semiconductor industry is highly cyclical and subject to rapid technological change and has been subject

to significant economic downturns at various times, such as the recent economic downturn, characterized by diminished product demand, accelerated erosion of average selling prices and production overcapacity. The semiconductor industry also periodically experiences increased demand and production capacity constraints. In addition, the semiconductor industry has historically experienced price volatility. As a result, we may experience significant fluctuations in operating results due to general semiconductor industry conditions and overall economic conditions.

In 2008 and 2009, the semiconductor industry experienced significant challenges as a result of the severe tightening of the credit markets, turmoil in the financial markets, and weakened global economy. While the semiconductor market recovered somewhat in 2010 and the first part of 2011, the recovery may not continue, which limits our ability to forecast our business. There may be sudden changes in our customers' manufacturing capacity requirements and spending, which depend in part on capacity utilization, demand for our customers' IC products by consumers, inventory levels relative to demand, and access to affordable capital. In addition, the semiconductor industry has experienced significant consolidation in the past and may continue to see high levels of consolidation in the future. If any of our customers are acquired, the acquiror may not continue to engage in a CDP with us. Alternatively, our customers may opt to acquire companies or technologies that decrease their need for our services or otherwise divert their R&D resources. As a result of these and other potential changes, the timing and length of any cycles can be difficult to predict. Further, uncertainty about future global economic conditions and any effect on the semiconductor industry could make it challenging for us to forecast our operating results, make business decisions and identify the risks that may affect our business, financial condition and results of operations. If we are not able to timely and appropriately adapt to changes resulting from the difficult macroeconomic environment, our business, financial condition and results of operations may be significantly negatively affected.

A substantial portion of our revenue is derived from business arrangements with related parties, and such arrangements could create conflicts of interest that could adversely affect our business and results of operations.

Some of our customers and other business partners hold a significant stake in our capital stock. Related party transactions disclosed in our financial statements accounted for $15.6 million and $26.0 million, or 40.2% and 61.0%, respectively, of our revenue for the nine months ended September 30, 2011 and the year ended December 31, 2010. ATMI, which beneficially owns approximately 10.6% of our capital stock as of October 15, 2011, accounted for $11.7 million and $22.1 million, or 30.1% and 51.8%, respectively, of our revenue for the nine months ended September 30, 2011 and the year ended December 31, 2010. For more information about these transactions, see "Certain Relationships and Related Party Transactions" and Note 11 to our consolidated financial statements. We have also entered into CDPs with GLOBALFOUNDRIES, whose majority stockholder, Advanced Technology Investment Company, LLC, beneficially owns approximately 4.4% of our capital stock as of October 15, 2011, and SanDisk Corporation and Toshiba Corporation, which collectively hold warrants exercisable for an aggregate of 822,368 shares of our common stock.

We believe that the transactions and agreements that we have entered into with related parties are on terms that are at least as favorable as could reasonably have been obtained at such time from third parties. However, these relationships could create, or appear to create, potential conflicts of interest when our board of directors is faced with decisions that could have different implications for us and our related parties or their affiliates. In addition, conflicts of interest may arise between us and our related parties and their affiliates. The appearance of conflicts, even if such conflicts do not materialize, might adversely affect the public's perception of us, as well as our relationship with other companies and our ability to enter into new relationships in the future, including new CDPs with competitors of such related parties, which could have a material adverse effect on our ability to do business.

We are subject to warranty claims, product recalls and product liability.

We may, from time to time, be subject to warranty or product liability claims for our HPC tools that may in the future lead to expenses as we compensate affected customers for costs incurred related to product quality issues. Although we maintain product liability insurance, such insurance is subject to significant deductibles and there is no guarantee that such insurance will be available or adequate to protect against all such claims. Alternatively, we may elect to self-insure with respect to certain matters. We may incur costs and expenses in the event of any recall of a HPC tool sold to our customers. We may incur replacement costs, contract damage claims from our customers and reputational harm. Costs or payments made in connection with warranty and product liability claims and product recalls could materially affect our financial condition and results of operations.

Compliance with environmental, health and safety laws and regulations could increase costs or cause us to incur substantial liabilities.

We are subject to various foreign, federal, state and local environmental laws and regulations governing, among other matters, emissions and discharges of hazardous materials into the air and water, the use, generation, storage, handling, transportation and disposal of, and exposure to, hazardous materials and wastes, remediation of contamination and employee health and safety. In addition, under certain of these environmental laws, liability can be joint and several and without regard to comparative fault. Our operations involve the use of hazardous materials and produce hazardous waste, and we could become liable for any injury or contamination that could arise due to such use or disposal of these materials. Failure to comply with environmental laws and regulations could result in the imposition of substantial civil and criminal fines and sanctions, could require operational changes or limits or the installation of costly equipment or otherwise lead to third party claims. Future environmental laws and regulations, stricter enforcement of existing laws and regulations, or the discovery of previously unknown contamination or violations of such laws and regulations could require us to incur costs or become the basis for new or increased liabilities, which could impair our operations and adversely affect our business and results of operations.

Acquisitions may harm our business and operating results, cause us to incur debt or assume contingent liabilities or dilute our shareholders.

We have made and may in the future make strategic investments or acquisitions where there is an opportunity to expand the potential applications and reach of our HPC platform. Exploring and implementing any investments or acquisitions may place strain upon our ability to manage our future growth and may divert management attention from our core development and licensing business. There are also other risks associated with this strategy. We cannot assure you that we will be able to make investments or acquire businesses on satisfactory terms, that any business acquired by us or in which we invest will be integrated successfully into our operations or be able to operate profitably, or that we will be able to realize any expected synergies or benefits from such investments or acquisitions. Our relative inexperience in effecting such transactions heightens these risks. In addition, to finance any acquisitions or investments, we may utilize our existing funds, or might need to raise additional funds through public or private equity or debt financings. Prolonged tightening of the financial markets may impact our ability to obtain financing to fund future acquisitions and we could be forced to obtain financing on less than favorable terms. Additionally, equity financings may result in dilution to our stockholders. We cannot predict the number, timing or size of investments or acquisitions, or the effect that any such transactions might have on our operating results.

Global or regional economic, political and social conditions could adversely affect our business and operating results.

We operate in multiple jurisdictions throughout the world and are subject to foreign business, political and economic risks. In particular, we are subject to risks arising from adverse changes in global economic conditions. Global economic uncertainties in the key markets of many of our customers may cause our customers to delay or reduce technology purchases and investments. The impact of this on us is difficult to predict, but if businesses defer licensing our technology, require fewer CDPs or development tools, or if consumers defer purchases of new products that incorporate technology developed through our CDPs, our revenue could decline. A decline in revenue would have an adverse effect on our results of operations and our financial condition.

In addition, some of our largest customers are located outside of the United States, primarily in Asia, which further exposes us to foreign risks. Also, a substantial portion of the consumer products market that serves as the end-market for the products we help our customers to develop is located in Asia. As a result, our operations are subject to substantial influence by political and economic conditions in Asia, as well as natural disasters such as the recent earthquake and tsunami and related nuclear power plant crisis in Japan. Reduced end user demand as well as disruptions to the supply chain for our customers resulting from these events could lead to a reduction in our revenue and an adverse impact on our financial condition.

We are also subject to general geopolitical risks in connection with international operations, such as political, social and economic instability, terrorism, interference with information or communication of networks or systems, potential hostilities, changes in diplomatic and trade relationships, and disease outbreaks, and any disruptive effect these events would have on our business operations. Although to date we have not experienced any material adverse effect on our operations as a result of these types of regulatory, geopolitical, and other factors, we cannot assure investors that these factors will not have a material adverse effect on our business, financial condition, and operating results or require us to modify our current business practices. Inconsistencies among, and unexpected changes in, a wide variety of foreign laws and regulatory environments with which we are not familiar, including, among other issues, with respect to employees, protection of our intellectual property, and a wide variety of operational regulations and trade and export controls under domestic, foreign, and international law may also have unexpected, adverse impacts on our operations and financial condition.

In the future, exchange rate fluctuations could affect our revenue, which could adversely affect our business and operating results.

Our licensing and royalty revenue is derived from sales of our customers' products that incorporate technology developed through our CDPs. To the extent that sales for these customer products are denominated in a foreign currency, an increase in the value of the U.S. dollar relative to such foreign currencies could adversely affect our licensing and royalty revenue irrespective of the volume of such products sold, which could adversely affect our business and operating results.

In addition, we derive a significant portion of our revenue from customers in foreign countries, particularly those based in Japan. Revenue generated from customers in Japan accounted for 29%, 30% and 27% of total revenue for the years ended December 31, 2010, 2009 and 2008, respectively. We expect that a significant portion of our total future revenue will continue to be derived from companies based in Japan and other foreign countries. If the U.S. dollar increases in value relative to the currencies in any of these countries, the cost of our CDPs, which have historically been billed in U.S. dollars, will be more expensive to existing and potential customers in those countries, which could adversely affect our ability to generate new or expand existing CDPs.

Business interruptions could delay us in the process of developing our products and could disrupt our sales.

Our headquarters are located in the San Francisco Bay Area near known earthquake fault zones and are vulnerable to significant damage from earthquakes. We are also vulnerable to other types of natural disasters and other events that could disrupt our operations, such as terrorist acts and other events beyond our control. We do not carry insurance for earthquakes and we may not carry sufficient business interruption insurance to compensate us for losses that may occur. Any losses or damages we incur could have a material adverse effect on our cash flows and success as an overall business.

Our ability to use our net operating loss carryforwards to offset future taxable income, and our ability to use our tax credit carryforwards, may be subject to certain limitations.

In general, a corporation that undergoes an "ownership change" under Section 382 of the Internal Revenue Code is subject to limitations on its ability to utilize its pre-change net operating loss carryforwards (NOLs) to offset future taxable income and its ability to utilize tax credit carryforwards. As of December 31, 2010, we reported U.S. federal NOLs of approximately $17.4 million. In general, an "ownership change" occurs if the aggregate stock ownership of certain stockholders (generally, 5% shareholders, applying certain aggregation and look-through rules) increases by more than 50 percentage points over such stockholders' lowest percentage ownership during the testing period (generally, three years). We have not determined whether an ownership change has occurred in the past. If we have experienced an ownership change in the past, or if we undergo an ownership change in connection with this offering, our ability to utilize NOLs and tax credit carryforwards could be limited. Furthermore, future changes in our stock ownership, such as certain stock issuances and transfers between stockholders, some of which changes are outside of our control, could result in ownership changes under Section 382 of the Internal Revenue Code. For these reasons, we may not be able to utilize a material portion of our NOLs and tax credit carryforwards, even if we attain profitability.

Risks Relating to this Offering and Ownership of Our Common Stock

An active trading market for our common stock may not develop, and you may not be able to resell your shares at or above the initial public offering price.

Prior to this offering, there has been no public market for shares of our common stock. Although we will apply to have our common stock approved for quotation on a stock exchange, an active trading market for our shares may never develop or be sustained following this offering. The initial public offering price of our common stock will be determined through negotiations between us and the underwriters. This initial public offering price may not be indicative of the market price of our common stock after this offering. In the absence of an active trading market for our common stock, investors may not be able to sell their common stock at or above the initial public offering price or at the time that they would like to sell.

Our stock price may be volatile, and the market price of our common stock after this offering may drop below the price you pay.

The market price of our common stock could be subject to significant fluctuations after this offering and it may decline below the initial public offering price. Market prices for securities of early stage companies have historically been particularly volatile. As a result of this volatility, you may not be able to sell your common stock at or above the initial public offering price. These fluctuations could be in response to, among other things, the factors described in this "Risk Factors" section or elsewhere in this registration statement, or other factors, some of which are beyond our control, such as:

- fluctuations in our financial results or outlook or those of companies perceived to be similar to us;

changes in estimates of our financial results or recommendations by securities analysts;

changes in market valuations of similar companies;

changes in our capital structure, such as future issuances of securities or the incurrence of debt;

announcements by us or our competitors of significant contracts, acquisitions or strategic alliances;

litigation involving us, our general industry or both;

additions or departures of key personnel;

regulatory developments in the U.S., countries in Asia, and/or other foreign countries;

investors' general perception of us; and

changes in general economic, industry and market conditions.

Furthermore, the stock markets have experienced price and volume fluctuations that have affected, and continue to affect, the market prices of equity securities of many companies. These fluctuations often have been unrelated or disproportionate to the operating performance of those companies. These broad market fluctuations, as well as general economic, political and market conditions, such as recessions, interest rate changes and international currency fluctuations, may negatively affect the market price of our common stock.

In the past, many companies that have experienced volatility in the market price of their stock have become subject to securities class action litigation. We may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management's attention from other business concerns, which could seriously harm our business.

We will incur increased costs and demands upon management as a result of complying with the laws and regulations affecting public companies, which could harm our results of operations.

As a public company, we will incur significant additional accounting, legal and other expenses that we did not incur as a private company, including costs associated with public company reporting requirements. We have incurred and will continue to incur costs associated with corporate governance requirements, including requirements under Section 404 and other provisions of the Sarbanes-Oxley Act, as well as rules implemented by the Securities Exchange Commission, or SEC, and the exchange on which we list our common stock. The expenses incurred by public companies for reporting and corporate governance purposes have increased dramatically in recent years. We expect these rules and regulations to substantially increase our financial and legal compliance costs. In addition, these rules and regulations are subject to change from time to time, and we may incur additional financial and legal compliance costs as we seek to understand and comply with changes in these rules and regulations. We also expect that as we become a public company it will be more difficult and more expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage previously available. As a result, it may be more difficult for us to attract and retain qualified individuals to serve on our board of directors or as our executive officers.

If we experience material weaknesses or otherwise fail to maintain an effective system of internal controls in the future, we may not be able to accurately report our financial condition or results of operations, which may adversely affect investor confidence in our company and, as a result, the value of our common stock.

As a result of becoming a public company, we will be required, under Section 404 of the Sarbanes-Oxley Act, to furnish a report by management on, among other things, the effectiveness of our internal control over financial reporting for the first fiscal year beginning after the effective date of this

offering. This assessment will need to include disclosure of any material weaknesses identified by our management in our internal control over financial reporting, as well as an opinion from our independent registered public accounting firm on the effectiveness of our internal control over financial reporting. A material weakness is a control deficiency or combination of control deficiencies that results in more than a remote likelihood that a material misstatement of annual or interim financial statements will not be prevented or detected.

We are in the very early stages of the costly and challenging process of hiring personnel and compiling the system and processing documentation necessary to perform the evaluation needed to comply with Section 404. We may not be able to complete our evaluation, testing and any required remediation in a timely fashion. During the evaluation and testing process, if we identify one or more material weaknesses in our internal control over financial reporting, we will be unable to assert that our internal controls are effective. We cannot assure you that there will not be material weaknesses and significant deficiencies in our internal controls in the future. If we are unable to conclude that our internal control over financial reporting is effective, or if our independent registered public accounting firm were to issue an adverse opinion on the effectiveness of our internal control over financial reporting, we could lose investor confidence in the accuracy and completeness of our financial reports, which would cause the price of our common stock to decline.

We have not completed a testing cycle under Section 404 of the Sarbanes-Oxley Act and cannot assure you that we will be able to implement and maintain an effective internal control over financial reporting in the future. Any failure to maintain such controls could severely inhibit our ability to accurately report our financial condition or results of operations.

The concentration of our capital stock ownership by our executive officers, directors and 5% stockholders following this offering will limit your ability to influence corporate matters.

We anticipate that our executive officers, directors, current five percent or greater stockholders and entities affiliated with them will together beneficially own approximately 69.3% of our common stock outstanding after this offering. Entities affiliated with Redpoint Ventures, entities affiliated with CMEA Ventures and entities affiliated with U.S. Venture Partners will beneficially own approximately 18.0%, 17.9% and 12.7% of our common stock outstanding after this offering. This significant concentration of share ownership may adversely affect the trading price for our common stock because investors often perceive disadvantages in owning stock in companies with concentrated stock ownership. Also, these stockholders, acting together, will be able to influence our management and affairs and matters requiring stockholder approval, including the election of directors and the approval of significant corporate transactions, such as mergers, consolidations or the sale of substantially all of our assets. Consequently, this concentration of ownership may have the effect of delaying or preventing a change of control, including a merger, consolidation or other business combination involving us, or discouraging a potential acquirer from making a tender offer or otherwise attempting to obtain control, even if that change of control would benefit our other stockholders.

A significant portion of our total outstanding shares may be sold into the public market in the near future, which could cause the market price of our common stock to drop significantly, even if our business is doing well.

Sales of a substantial number of shares of our common stock in the public market could occur at any time after the expiration of the lock-up agreements described in the "Underwriting" and "Shares Eligible for Future Sale−Lock-up Agreements" sections of this prospectus. These sales, or the market perception that the holders of a large number of shares intend to sell shares, could reduce the market price of our common stock. After this offering, we will have 42,256,487 shares of common stock outstanding based on the number of shares outstanding as of September 30, 2011 and assuming the conversion of all shares of preferred stock into 29,230,708 shares of our common stock and no exercise

of outstanding options or warrants after September 30, 2011 other than those to be exercised in connection with this offering. This includes the 5,678,615 shares that we are selling in this offering and the 4,321,385 shares that certain of our stockholders are selling in this offering, each of which may be resold in the public market immediately after this offering. The remaining 32,256,487 shares, or 76.3% of our outstanding shares after this offering, are currently restricted as a result of securities laws or lock-up agreements but will be eligible for sale upon the expiration of 180-day lock-up and/or market standoff agreements, subject in some cases to the volume limitations and other restrictions of Rule 144 and Rule 701 promulgated under the Securities Act of 1933, as amended, or the Securities Act, and upon the lapse of our right of repurchase with respect to any unvested shares.

The lock-up agreements expire 180 days after the date of this prospectus, except that the 180-day period may be extended in certain cases for up to 34 additional days under certain circumstances where we announce or pre-announce earnings or a material event occurs within approximately 17 days prior to, or approximately 16 days after, the termination of the 180-day period. The representatives of the underwriters may, in their sole discretion and at any time without notice, release all or any portion of the securities subject to lock-up agreements.

Following this offering, holders of 26,492,877 shares of our common stock not sold in this offering will be entitled to rights with respect to the registration of these shares under the Securities Act. See "Description of Capital Stock−Registration Rights." If we register their shares of common stock following the expiration of the lock-up agreements, these stockholders could sell those shares in the public market without being subject to the volume and other restrictions of Rule 144 and Rule 701.

After the consummation of this offering, we intend to register approximately 12.6 million shares of common stock that have been reserved for issuance under our stock incentive plans. Once we register these shares, they can be freely sold in the public market upon vesting and issuance, subject to the 180-day lock-up periods under the lock-up agreements described in the "Underwriting" section of this prospectus.

Purchasers in this offering will experience immediate and substantial dilution in the book value of their investment.

The initial public offering price of our common stock is substantially higher than the net tangible book value per share of our outstanding common stock immediately after this offering. Therefore, if you purchase our common stock in this offering, you will incur immediate dilution of approximately $10.59 in net tangible book value per share from the price you paid, based on an assumed initial offering price of $13.00 per share, the midpoint of the range set forth on the cover of this prospectus. In addition, investors purchasing common stock in this offering will own only approximately 14% of our shares outstanding after this offering even though they will have contributed 46% of the total consideration received by us in connection with our sales of common stock. Moreover, we issued options and warrants in the past to acquire our stock at prices significantly below the initial public offering price. As of September 30, 2011, 8,156,105 shares of common stock were issuable upon exercise of outstanding stock options with a weighted average exercise price of $2.35 per share, which include 126,500 shares subject to options that will be exercised in connection with this offering at a weighted average exercise price of $0.33 per share. As of September 30, 2011, 2,225,860 shares of common stock (assuming conversion of all shares of preferred stock into common stock as of September 30, 2011) were issuable upon exercise of outstanding warrants with a weighted average exercise price of $5.19 per share, which include 1,313,492 shares subject to warrants that will be exercised in connection with this offering for an aggregate exercise price of approximately $6.4 million. To the extent that these outstanding options and warrants are ultimately exercised, you will incur further dilution. For a further description of the dilution that you will experience immediately after this offering, see the "Dilution" section of this prospectus.

If securities or industry analysts do not publish or cease publishing research or reports about us, our business or our market, or if they change their recommendations regarding our stock adversely, our stock price and trading volume could decline.

The trading market for our common stock will be influenced by the research and reports that industry or securities analysts may publish about us, our business, our market or our competitors. If any of the analysts who may cover us change their recommendation regarding our stock adversely, or provide more favorable relative recommendations about our competitors, our stock price would likely decline. If any analyst who may cover us were to cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

Our management will have broad discretion over the use of the proceeds we receive in this offering and might not apply the proceeds in ways that increase the value of your investment.

Our management will have broad discretion in the application of the net proceeds from this offering, and you will be relying on the judgment of our management regarding the application of these proceeds. Our management might not apply our net proceeds of this offering in ways that increase the value of your investment. We expect to use the net proceeds to us from this offering for working capital and other general corporate purposes, which may in the future include expansion of production facilities and HPC platform and equipment, investments in, or acquisitions of, complementary businesses, joint ventures, partnerships, services, intellectual property or technologies. Our management might not be able to yield a significant return, if any, on any investment of these net proceeds. You will not have the opportunity to influence our decisions on how to use our net proceeds from this offering.

After the consummation of this offering, we do not expect to declare any dividends in the foreseeable future.

After the consummation of this offering, we do not anticipate declaring any cash dividends to holders of our common stock in the foreseeable future. Consequently, investors may need to rely on sales of their common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investment. Investors seeking cash dividends should not purchase our common stock.

Anti-takeover provisions contained in our certificate of incorporation and bylaws, as well as provisions of Delaware law, could impair a takeover attempt.

Our amended and restated certificate of incorporation and our amended and restated bylaws to be effective upon the consummation of this offering will contain provisions that could delay or prevent a change in control of our company. These provisions could also make it more difficult for stockholders to elect directors and take other corporate actions. These provisions include:

staggered board of directors;

authorizing the board to issue, without stockholder approval, preferred stock with rights senior to those of our common stock;

authorizing the board to amend our bylaws and to fill board vacancies until the next annual meeting of the stockholders;

prohibiting stockholder action by written consent;

limiting the liability of, and providing indemnification to, our directors and officers;

eliminating the ability of our stockholders to call special meetings; and

requiring advance notification of stockholder nominations and proposals.

Section 203 of the Delaware General Corporation Law prohibits, subject to some exceptions, "business combinations" between a Delaware corporation and an "interested stockholder," which is generally defined as a stockholder who becomes a beneficial owner of 15% or more of a Delaware corporation's voting stock, for a three-year period following the date that the stockholder became an interested stockholder.

These and other provisions in our amended and restated certificate of incorporation and our amended and restated bylaws to be effective upon the consummation of this offering under Delaware law could discourage potential takeover attempts, reduce the price that investors might be willing to pay in the future for shares of our common stock and result in the market price of our common stock being lower than it would be without these provisions. See "Description of Capital Stock−Preferred Stock" and "Description of Capital Stock−Anti-Takeover Provisions."

FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements that involve risks and uncertainties. The forward-looking statements are contained principally in the sections entitled "Prospectus Summary," "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Business." These statements relate to future events or our future financial or operational performance and involve known and unknown risks, uncertainties and other factors that could cause our actual results, levels of activity, performance or achievement to differ materially from those expressed or implied by these forward-looking statements. These risks and uncertainties are contained principally in the section entitled "Risk Factors."

Forward-looking statements include all statements that are not historical facts. In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "could," "would," "expects," "plans," "anticipates," "believes," "estimates," "projects," "predicts," "potential," or the negative of those terms, and similar expressions and comparable terminology intended to identify forward-looking statements. These statements reflect our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. Given these uncertainties, you should not place undue reliance on these forward-looking statements. These forward-looking statements represent our estimates and assumptions only as of the date of this prospectus and, except as required by law, we undertake no obligation to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise after the date of this prospectus.

MARKET, INDUSTRY AND OTHER DATA

Unless otherwise indicated, information contained in this prospectus concerning our industry and the markets in which we operate, including our general expectations and market position, market opportunity and market size, is based on information from various sources, on assumptions that we have made that are based on those data and other similar sources and on our knowledge of the markets for our services. These data involve a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. We have not independently verified any third party information and cannot assure you of its accuracy or completeness. While we believe the market position, market opportunity and market size information included in this prospectus is generally reliable, such information is inherently imprecise. In addition, projections, assumptions and estimates of our future performance and the future performance of the industry in which we operate is necessarily subject to a high degree of uncertainty and risk due to a variety of factors, including those described in "Risk Factors" and elsewhere in this prospectus. These and other factors could cause results to differ materially from those expressed in the estimates made by the independent parties and by us.

USE OF PROCEEDS

We estimate that we will receive net proceeds of approximately $63.3 million from the sale of 5,678,615 shares of common stock offered by us in this offering, based on an assumed initial public offering price of $13.00 per share (the midpoint of the price range set forth on the cover page of this prospectus) and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. A $1.00 increase (decrease) in the assumed initial public offering price of $13.00 per share would increase (decrease) the net proceeds to us from this offering by $5.1 million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. If the underwriters' over-allotment option to purchase additional shares from us is exercised in full, we estimate that we will receive additional net proceeds of $16.4 million. We will not receive any proceeds from the sale of the shares of common stock to be offered by the selling stockholders.

We intend to use the net proceeds received by us from this offering for working capital and other general corporate purposes.

In connection with an agreement for the purchase of intellectual property and the termination of our royalty obligations under an existing license agreement, we have an obligation to issue a promissory note to Symyx Technologies, Inc. (Symyx), a wholly-owned subsidiary of Accelrys, Inc., upon the consummation of this offering to the extent the gross proceeds from Symyx's sale of shares in this offering (before deducting underwriting discounts and commissions and estimated offering expenses) are less than $67 million. At an assumed initial public offering price of $13.00 per share (the midpoint of the price range set forth on the cover page of this prospectus), the gross proceeds from the sale of Symyx's shares would be $51.6 million, and we would have a $15.4 million obligation to Symyx. A $1.00 increase (decrease) in the assumed initial public offering price of $13.00 per share would increase (decrease) the gross proceeds to Symyx by $4.0 million and would (decrease) increase the value of any promissory note payable to Symyx by the same amount. Such note, if issued, would have a term of 24 months and an interest rate equal to 4%. Such note would be payable in an amount equal to the lesser of the principal amount and the greater of $500,000 per quarter or the amount of accrued interest, with a balloon payment at maturity if applicable. Such note would also be pre-payable by us at any time without penalty or premium, and would be secured by tangible personal property, excluding intellectual property. If we issue such note, a portion of the net proceeds of this offering would be used to make payments of scheduled interest and payment of principal at any time at or prior to maturity. We have also agreed to reimburse Symyx for 50% of their underwriting discounts and commissions, which amount is equal to approximately $1.8 million based on an assumed initial public offering price of $13.00 (the midpoint of the price range set forth on the cover page of this prospectus).

We may also use a portion of the net proceeds to expand our current business through acquisitions of other businesses, products, intellectual property or technologies. Other than as set forth above, we do not have agreements or commitments for any specific acquisitions at this time.

Pending the use of the net proceeds from this offering, we plan to invest the net proceeds in short- and intermediate-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or director or guaranteed obligations of the U.S. government. We cannot predict whether the proceeds invested will yield a favorable return, if any.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our common stock. We currently intend to retain any future earnings for use in the operation and expansion of our business, and currently do not plan to declare or pay any dividends on shares of our common stock in the foreseeable future. Subject to the foregoing, the payment of cash dividends in the future, if any, will be at the discretion of our board of directors and will depend upon a number of factors, including our earnings, capital requirements, requirements under the Delaware General Corporation Law, restrictions and covenants pursuant to any credit facilities we may enter into, our overall financial condition and any other factors deemed relevant by our board of directors.

CAPITALIZATION

The following table sets forth our capitalization as of September 30, 2011 as follows:

on an actual basis;

on a pro forma basis to reflect:

a 1-for-2 reverse stock split of our common stock to be effected prior to the effectiveness of this registration statement;

the automatic conversion of all outstanding shares of our redeemable convertible preferred stock into 29,230,708 shares of common stock in connection with the consummation of this offering (reflecting a 1-for-2 conversion ratio as a result of the assumed reverse stock split referred to above);

the resulting reclassification of accumulated accretion of redeemable convertible preferred stock and preferred stock warrant liability to additional paid-in capital;

the exercise of options to purchase 126,500 shares of common stock by certain of our executive officers in connection with their sales as part of this offering, and the resulting additional paid-in capital for the aggregate exercise price of approximately $42,250;

the automatic conversion of a warrant exercisable for our redeemable convertible preferred stock into a warrant exercisable for 84,373 shares of our common stock (reflecting a 1-for-2 conversion ratio as a result of the assumed reverse stock split referred to above) at an exercise price of $0.89 per share immediately before the consummation of this offering, and the resulting reclassification of the preferred stock warrant liability to additional paid-in capital; and

the cash exercise of certain warrants outstanding to purchase shares of our common stock as of September 30, 2011, resulting in the issuance of 1,313,492 shares of common stock for an aggregate exercise price of approximately $6.4 million.

on a pro forma as adjusted basis after further giving effect to the filing of our amended and restated certificate of incorporation and the issuance of a promissory note payable to Symyx in connection with the consummation of the Symyx asset purchase transaction in the event Symyx's gross proceeds from this offering are less than $67 million, each of which will occur in connection with the consummation of this offering, and the receipt of the net proceeds from the sale of 5,678,615 shares of common stock offered by us in this offering at an assumed initial public offering price of $13.00 per share (the midpoint of the price range set forth on the cover page of this prospectus), after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

The pro forma and pro forma as adjusted information below is illustrative only and our capitalization following the consummation of this offering will be adjusted based on the actual initial public offering price and other terms of this offering determined at pricing. You should read this table in conjunction with the sections titled "Selected Consolidated Financial Data" and "Management's

Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes included elsewhere in this prospectus.

	As of September 30, 2011		
	Actual	Pro Forma	Pro Forma as Adjusted
	(unaudited)		
	(in thousands, except share and per share amounts)		
Note payable	–	–	15,413
Preferred stock warrant liability	909	–	–
Redeemable convertible preferred stock, par value $0.001 per share: 59,230,199 shares authorized, 58,461,447 shares issued and outstanding, actual; no shares authorized, no shares issued and outstanding, pro forma and pro forma as adjusted	80,515	–	–
Accumulated accretion of redeemable convertible preferred stock to redemption values	43,086	–	–
Stockholders' equity (deficit):			
Common stock, par value $0.001 per share: 105,000,000 shares authorized, 5,907,172 shares issued and outstanding, actual; 105,000,000 shares authorized, 36,451,372 shares issued and outstanding, pro forma; 42,256,487 shares issued and outstanding, pro forma as adjusted	6	36	42
Additional paid-in capital	–	130,857	195,937
Accumulated deficit	(74,998)	(74,998)	(88,766)
Total stockholders' equity (deficit)	(74,992)	55,895	107,213
Total capitalization	$ 49,518	$ 55,895	$122,626

In connection with the consummation of the Symyx asset purchase transaction, which will occur in connection with the consummation of this offering, in the event Symyx's gross proceeds from this offering are less than $67 million, we will issue a note payable to Symyx with a value equal to the difference between Symyx's gross proceeds and $67 million.

If the underwriters' over-allotment option were exercised in full, pro forma as adjusted cash and cash equivalents, common stock and additional paid-in capital, stockholders' equity (deficit) and shares issued and outstanding as of September 30, 2011 would be $115.7 million, $44,000, $212.4 million, $123.7 million and 43,665,815 shares, respectively.

A $1.00 increase (decrease) in the assumed initial public offering price of $13.00 per share (the midpoint of the price range set forth on the cover page of this prospectus) would (decrease) increase the pro forma as adjusted note payable by approximately ($4.0) million, each of pro forma as adjusted additional paid-in capital and stockholders' equity (deficit) by approximately $5.3 million and $9.1 million, respectively, and pro forma as adjusted total capitalization by approximately $5.1 million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same. We may also increase or decrease the number of shares we are offering. An increase (decrease) of 1,000,000 in the number of shares we are offering would increase (decrease) each of pro forma as adjusted additional paid-in capital, stockholders' equity (deficit) and total capitalization by approximately $12.1 million, assuming the assumed initial public offering price per share (the midpoint of the price range set forth on the cover page of this prospectus) remains the same. An increase of 1,000,000 in the number of shares we are offering, together with a $1.00 increase in the assumed initial public offering price per share, would decrease the pro forma as adjusted note payable by approximately $4.0 million, and increase pro forma as adjusted additional paid-in capital and stockholders' equity (deficit) by approximately $18.3 million and $22.1 million, respectively, and

pro forma as adjusted total capitalization by approximately $18.2 million. A decrease of 1,000,000 in the number of shares we are offering, together with a $1.00 decrease in the assumed initial public offering price per share, would increase the pro forma as adjusted note payable by approximately $4.0 million, decrease pro forma as adjusted additional paid-in capital and stockholders' equity (deficit) by approximately $16.4 million and $20.3 million, respectively, and decrease pro forma as adjusted total capitalization by approximately $16.3 million. The pro forma as adjusted information is illustrative only, and we will adjust this information based on the actual initial public offering price and other terms of this offering determined at pricing.

The number of actual, pro forma and pro forma as adjusted shares of common stock issued and outstanding in the table above each excludes the following shares as of September 30, 2011:

- 8,156,105 shares of common stock issuable upon the exercise of options outstanding, at a weighted average exercise price of $2.35 per share, which include 126,500 shares subject to options that will be exercised in connection with this offering at a weighted average exercise price of $0.33 per share;

- 912,368 shares of common stock issuable upon the exercise of warrants outstanding (not including those to be exercised in connection with the consummation of this offering), at a weighted average exercise price of $5.68 per share; and

- 4,460,226 shares of common stock that will be reserved for future issuance under our 2011 Incentive Award Plan (which include 234,578 shares of common stock previously reserved for future issuance under our 2004 Equity Incentive Plan that will become available for issuance under our 2011 Incentive Award Plan upon the consummation of this offering), as well as any automatic increases in the number of shares of our common stock reserved for future issuance under this benefit plan.

DILUTION

If you invest in our common stock in this offering, your interest will be diluted to the extent of the difference between the initial public offering price per share of our common stock and the pro forma as adjusted net tangible book value per share of our common stock immediately after this offering.

Net tangible book value per share is determined by dividing our total tangible assets less our total liabilities by the number of shares of common stock outstanding. Our historical net tangible book value (deficit) as of September 30, 2011 was $(80.6) million, or $(13.64) per share.

Our pro forma net tangible book value (deficit) as of September 30, 2011 was $50.3 million, or $1.38 per share, after giving effect to the following:

a 1-for-2 reverse stock split of our common stock to be effected prior to the effectiveness of this registration statement;

the automatic conversion of all outstanding shares of our redeemable convertible preferred stock into 29,230,708 shares of common stock in connection with the consummation of this offering (reflecting a 1-for-2 conversion ratio as a result of the assumed reverse stock split referred to above);

the resulting reclassification of accumulated accretion of redeemable convertible preferred stock and preferred stock warrant liability to additional paid-in capital;

the exercise of options to purchase 126,500 shares of common stock by certain of our executive officers in connection with their sales as part of this offering, and the resulting additional paid-in capital for the aggregate exercise price of approximately $42,250;

the automatic conversion of a warrant exercisable for our redeemable convertible preferred stock into a warrant exercisable for 84,373 shares of our common stock (reflecting a 1-for-2 conversion ratio as a result of the assumed reverse stock split referred to above) at an exercise price of $0.89 per share immediately before the consummation of this offering, and the resulting reclassification of the preferred stock warrant liability to additional paid-in capital;

the cash exercise of certain warrants outstanding to purchase shares of our common stock as of September 30, 2011, resulting in the issuance of 1,313,492 shares of common stock for an aggregate exercise price of approximately $6.4 million; and

no exercise of the underwriters' over-allotment option.

After further giving effect to the filing of our amended and restated certificate of incorporation and the issuance of a promissory note payable to Symyx in connection with the consummation of the Symyx asset purchase transaction in the event Symyx's gross proceeds from this offering are less than $67 million, each of which will occur in connection with the consummation of this offering, and our receipt of the net proceeds from the sale of 5,678,615 shares of common stock offered by us in this offering at an assumed initial public offering price of $13.00 per share (the midpoint of the price range set forth on the cover page of this prospectus), after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value as of September 30, 2011 would have been $101.6 million, or $2.41 per share. This represents an immediate increase in net tangible book value of $1.03 per share to existing stockholders

and an immediate dilution in net tangible book value of $10.59 per share to purchasers of common stock in this offering, as illustrated in the following table:

Assumed initial public offering price per share, based on the midpoint of the price range set forth on the cover page of this prospectus.		$13.00
Pro forma net tangible book value (deficit) per share as of September 30, 2011	$1.38	
Increase in pro forma net tangible book value (deficit) per share attributable to new investors	1.03	
Pro forma as adjusted net tangible book value per share after this offering		2.41
Dilution per share to investors in this offering		$10.59

If the underwriters' over-allotment option to purchase additional shares from us is exercised in full, the pro forma as adjusted net tangible book value per share after this offering would be $2.70 per share, the marginal increase in pro forma as adjusted net tangible book value per share to existing stockholders would be $0.29 per share and the dilution to new investors purchasing shares in this offering would be $10.30 per share.

A $1.00 increase (decrease) in the assumed initial public offering price of $13.00 per share (the midpoint of the price range set forth on the cover page of this prospectus) would increase (decrease) our pro forma as adjusted net tangible book value by $9.1 million, the pro forma as adjusted net tangible book value per share by $0.21 per share and the dilution in the pro forma net tangible book value to new investors in this offering by $0.21 per share, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

The following table presents on a pro forma as adjusted basis as of September 30, 2011, after giving effect to the pro forma adjustments described above, the differences between the existing stockholders and the new investors purchasing shares in this offering with respect to the number of shares purchased from us, the total consideration paid, which includes gross proceeds received from the issuance of common and redeemable convertible preferred stock, cash received from the exercise of stock options and the value of any stock issued for services and the average price paid per share:

	Shares Purchased		Total Consideration		Average Price per Share
	Number	Percent	Amount	Percent	
			(in thousands)		
Existing stockholders	36,451,372	86%	$ 88,142	54%	$ 2.42
New investors	5,805,115	14	73,864	46	12.72
Totals	42,256,487	100.0%	$ 162,006	100.0%	

The sale by the selling stockholders in this offering will cause the number of shares held by existing stockholders to be reduced to 32,256,487 shares or 76.3% of the total number of shares of our common stock outstanding after this offering. If the underwriters exercise their over-allotment option in full, our existing stockholders would own 73.7% and our new investors would own 26.3% of the total number of shares of our common stock outstanding after this offering.

The foregoing calculations are based on 36,451,372 shares of common stock outstanding as of September 30, 2011, assuming the conversion of all outstanding shares of our redeemable convertible preferred stock into 29,230,708 shares of common stock in connection with the consummation of this offering (reflecting a 1-for-2 conversion ratio as a result of the 1-for-2 reverse stock split of our common stock), the cash exercise of certain warrants outstanding to purchase shares of our common

stock as of September 30, 2011, resulting in the issuance of 1,313,492 shares of common stock for an aggregate exercise price of approximately $6.4 million, and the exercise of options to purchase 126,500 shares of common stock by certain of our executive officers in connection with their sales as part of this offering, and the resulting additional paid-in capital for the aggregate exercise price of $42,250, and exclude the following:

- 8,156,105 shares of common stock issuable upon the exercise of options outstanding, at a weighted average exercise price of $2.35 per share, which include 126,500 shares subject to options that will be exercised in connection with this offering at a weighted average exercise price of $0.33 per share;

- 912,368 shares of common stock issuable upon the exercise of warrants outstanding (not including those to be exercised in connection with the consummation of this offering), at a weighted average exercise price of $5.68 per share; and

- 4,460,226 shares of common stock that will be reserved for future issuance under our 2011 Incentive Award Plan (which include 234,578 shares of common stock previously reserved for future issuance under our 2004 Equity Incentive Plan that will become available for issuance under our 2011 Incentive Award Plan upon the consummation of this offering), as well as any automatic increases in the number of shares of our common stock reserved for future issuance under this benefit plan.

To the extent that outstanding options or warrants are exercised, you will experience further dilution. If all of our outstanding options and warrants were exercised, our pro forma net tangible book value as of September 30, 2011 would have been $74.6 million, or $1.64 per share, and the pro forma, as adjusted net tangible book value after this offering would have been $126.0 million, or $2.45 per share, causing dilution to new investors of $10.55 per share.

In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

SELECTED CONSOLIDATED FINANCIAL DATA

The selected consolidated statement of operations data for the years ended December 31, 2008, 2009 and 2010 and the consolidated balance sheet data as of December 31, 2009 and 2010 are derived from our audited consolidated financial statements included elsewhere in this prospectus. The selected consolidated statement of operations data for the nine months ended September 30, 2010 and 2011 and the consolidated balance sheet data as of September 30, 2011 are derived from our unaudited consolidated financial statements included elsewhere in this prospectus. The selected consolidated statement of operations data for the years ended December 31, 2006 and 2007 and the consolidated balance sheet data as of December 31, 2006, 2007 and 2008 are derived from our audited consolidated financial statements which are not included in this prospectus. The unaudited interim consolidated financial statements include, in the opinion of management, all adjustments, which consist only of normal recurring adjustments, that management considers necessary for the fair statement of the financial information set forth in those statements. Our historical results are not necessarily indicative of the results that may be expected in the future. Results for the nine months ended September 30, 2011 are not necessarily indicative of results to be expected for the full year. You should read the following selected consolidated historical financial data below in conjunction with the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the consolidated financial statements and related notes included elsewhere in this prospectus.

	Years Ended December 31,					Nine Months Ended September 30,	
	2006	2007	2008	2009	2010	2010	2011
						(unaudited)	
	(in thousands, except share and per share amounts)						
Consolidated Statement of Operations Data:							
Revenue:							
CDP and services revenue	$ 3,628	$ 8,594	$ 14,647	$ 14,182	$ 27,705	$ 17,992	$ 26,169
Product revenue	–	–	6,206	9,065	6,959	4,935	2,038
Licensing and royalty revenue	–	–	2,276	3,663	8,010	5,583	10,491
Total revenue	3,628	8,594	23,129	26,910	42,674	28,510	38,698
Cost of revenue	1,992	4,873	12,625	13,018	20,926	13,988	17,999
Gross profit	1,636	3,721	10,504	13,892	21,748	14,522	20,699
Operating expenses:							
Research and development	5,175	9,415	11,849	10,983	13,917	10,217	14,601
Sales and marketing	773	1,541	3,849	3,211	4,074	3,056	3,229
General and administrative	3,647	3,837	4,300	4,867	5,761	4,250	6,156
Total operating expenses	9,595	14,793	19,998	19,061	23,752	17,523	23,986
Loss from operations	(7,959)	(11,072)	(9,494)	(5,169)	(2,004)	(3,001)	(3,287)
Other income (expense):							
Interest income, net	448	850	174	(6)	43	37	16
Other income (expense), net	–	–	6	(62)	202	71	(1,174)
Total other income (expense), net	448	850	180	(68)	245	108	(1,158)
Loss before provision for income taxes	(7,511)	(10,222)	(9,314)	(5,237)	(1,759)	(2,893)	(4,445)
Provision for income taxes	1	1	186	17	19	8	19
Net loss	(7,512)	(10,223)	(9,500)	(5,254)	(1,778)	(2,901)	(4,464)
Accretion on redeemable convertible preferred stock	(1,351)	(4,168)	(5,436)	(9,170)	(14,162)	(10,044)	(8,660)
Net loss attributable to common stockholders	$ (8,863)	$ (14,391)	$ (14,936)	$ (14,424)	$ (15,940)	$ (12,945)	$ (13,124)
Net loss per share of common stock, basic and diluted	$ (1.98)	$ (3.17)	$ (2.97)	$ (2.62)	$ (2.86)	$ (2.33)	$ (2.30)
Weighted-average number of shares used in computing net loss per share of common stock, basic and diluted(1)	4,484,328	4,542,762	5,024,118	5,511,889	5,567,286	5,555,448	5,716,511
Pro forma net loss per share of common stock, basic and diluted(1)					$ (0.05)		$ (0.11)
Weighted-average number of shares used in computing pro forma net loss per share of common stock, basic and diluted(1)					32,688,160		34,885,617
Other Data:							
Adjusted EBITDA (unaudited)	$ (5,238)	$ (7,737)	$ (5,062)	$ 272	$ 4,589	$ 1,740	$ 4,196

	Years Ended December 31,					As of September 30, 2011
	2006	2007	2008	2009	2010	
						(unaudited)
	(in thousands)					
Consolidated Balance Sheet Data:						

Cash, cash equivalents and short-term investments	$20,698	$ 26,744	$ 40,902	$ 32,620	$ 23,064	$ 29,511
Working capital	22,519	18,552	26,663	16,389	4,825	17,190
Total assets	28,906	40,877	62,190	54,469	55,571	73,656
Long-term debt, including current portion	–	3,194	4,445	–	–	–
Preferred stock warrant liability	–	–	–	159	215	909
Redeemable convertible preferred stock	35,738	35,738	55,633	55,633	55,633	80,515
Accumulated accretion of redeemable convertible preferred stock to redemption values	1,490	5,658	11,094	20,264	34,426	43,086
Total stockholders' deficit	(9,629)	(22,706)	(36,579)	(49,889)	(64,356)	(74,992)

(1) Please see Note 9 to our audited consolidated financial statements for an explanation of the calculations of our basic and diluted net loss per share of common stock and pro forma net loss per share of common stock.

Non-GAAP Financial Measure

We believe that the use of adjusted EBITDA, a non-GAAP financial measure, is helpful for an investor in determining whether to invest in our common stock. We include adjusted EBITDA in this prospectus because (i) we seek to manage our business to a consistent level of adjusted EBITDA, (ii) it is a key basis upon which our management assesses our operating performance, (iii) it is one of the primary metrics investors use in evaluating companies' performance in our industry and (iv) it is a factor in the evaluation of the performance of our management in determining compensation. We define adjusted EBITDA as net income (loss) less interest, provision for income taxes, depreciation and amortization expense, non-cash revenue adjustments as a result of common stock warrants issued to customers and stock-based compensation expense.

We use adjusted EBITDA as a key performance measure because we believe it facilitates operating performance comparisons from period to period by excluding potential differences caused by variations in capital structures, tax positions (such as the impact of changes in effective tax rates or fluctuations in permanent differences or discrete quarterly items), the impact of depreciation and amortization expense, the non-cash impact of common stock warrants issued to customers and the impact of stock-based compensation expense.

In addition, we believe adjusted EBITDA and similar measures are widely used by investors, securities analysts, ratings agencies and other interested parties in our industry as a measure of financial performance and debt-service capabilities. Our use of adjusted EBITDA has limitations as an analytical tool, and you should not consider it in isolation or as a substitute for analysis of our results as reported under GAAP. Some of these limitations are:

- Adjusted EBITDA does not reflect our cash expenditures for capital equipment or other contractual commitments;
- Although depreciation and amortization are non-cash charges, the assets being depreciated and amortized may have to be replaced in the future, and adjusted EBITDA does not reflect cash capital expenditure requirements for such replacements;
- Adjusted EBITDA does not reflect changes in, or cash requirements for, our working capital needs;
- Adjusted EBITDA does not reflect the significant interest expense or the cash requirements necessary to service interest or principal payments on our indebtedness;
- Adjusted EBITDA does not reflect certain tax payments that may represent a reduction in cash available to us; and
- Other companies, including companies in our industry, may calculate adjusted EBITDA measures differently, which reduces their usefulness as a comparative measure.

Because of these limitations, adjusted EBITDA should not be considered as a measure of discretionary cash available to us to invest in the growth of our business. When evaluating our performance, you should consider adjusted EBITDA alongside other financial performance measures, including our net loss and other GAAP results.

The following table presents a reconciliation of adjusted EBITDA to our net income (loss), the most comparable GAAP measure, for each of the periods indicated:

	Years Ended December 31,					Nine Months Ended September 30,	
	2006	2007	2008	2009	2010	2010	2011
						(unaudited)	
	(in thousands)						
Net loss	$ (7,512)	$ (10,223)	$ (9,500)	$ (5,254)	$ (1,778)	$ (2,901)	$ (4,464)
Non-GAAP adjustments:							
Revenue(1)	–	519	–	–	–	–	312
Interest, net	(448)	(850)	(94)	48	13	(37)	678
Mark-to-market of derivative liability	–	–	–	–	–	–	609
Provision for taxes	1	1	186	17	19	8	19
Depreciation and amortization	872	2,105	3,430	4,380	4,971	3,642	5,239
Stock-based compensation expense(2)	1,849	711	916	1,081	1,364	1,028	1,803
Adjusted EBITDA (unaudited)	$ (5,238)	$ (7,737)	$ (5,062)	$ 272	$ 4,589	$ 1,740	$ 4,196

(1) Reduction in revenue as a result of common stock warrants issued in connection with a customer agreement

(2) Includes stock-based compensation as follows:

	Years Ended December 31,					Nine Months Ended September 30,	
	2006	2007	2008	2009	2010	2010	2011
						(unaudited)	
	(in thousands)						
Cost of revenue	$ 19	$ 81	$ 71	$ 134	$ 285	$ 188	$ 418
Research and development	179	192	170	222	204	171	327
Sales and marketing	108	256	408	378	422	336	627
General and administrative	1,543	182	267	347	453	333	431
Total stock-based compensation	$1,849	$711	$916	$1,081	$1,364	$ 1,028	$ 1,803

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and related notes included elsewhere in this prospectus. This discussion contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those discussed below. Factors that could cause or contribute to such differences include, but are not limited to, those identified below and those discussed in the section entitled "Risk Factors" included elsewhere in this prospectus.

Overview

We have pioneered a proprietary approach to accelerate research and development, innovation and time-to-market for the semiconductor and clean-energy industries. Using our approach, we develop technology and intellectual property (IP) focused on advanced materials, processes, integration and device architectures in collaboration with our customers. This technology enables our customers to bring optimized, high-volume manufacturing-ready integrated devices to market faster and with less risk than traditional approaches to research and development (R&D). We provide our customers with proprietary technology through various fee arrangements and grant them rights to associated IP, primarily through royalty-bearing licenses. Our proprietary approach is broadly applicable to high-volume integrated device markets, which include semiconductors, flat glass, solar cells, light-emitting diodes (LEDs), flat-panel displays, advanced batteries and other energy-efficient technologies.

We currently target large, high-volume semiconductor and high-growth emerging clean-energy markets, including DRAM, flash memory, complex logic, flat glass, solar cells, LEDs and energy-efficient technologies. Within these broad markets, we target customers that have track records of technological innovation, deploy significant resources and are pursuing technical advancements that are critical to their success and strategy. We have engaged in paid programs with 19 customers, including ATMI, Elpida Memory, GLOBALFOUNDRIES, Guardian Industries, SanDisk, Taiwan Semiconductor Manufacturing Company (TSMC) and Toshiba. ATMI and Elpida have commenced shipping products incorporating technology developed through our collaborative development programs (CDPs) and pay us licensing and royalty fees. To date, we have received the majority of our revenue from customers in DRAM, flash memory, complex logic and energy-efficient applications in flat glass, and have not yet received a material amount of revenue from customers in solar cells, LEDs and other energy-efficient technologies.

We were founded in 2004 and are headquartered in San Jose, California. Our total revenue increased to $38.7 million for the nine months ended September 30, 2011 from $28.5 million for the nine months ended September 30, 2010. Our total revenue increased to $42.7 million for the year ended December 31, 2010 from $26.9 million for the year ended December 31, 2009. Our backlog as of September 30, 2011 was $94.5 million, of which $14.0 million is scheduled to be recognized as revenue during the remainder of the year ending December 31, 2011, and $44.6 million is scheduled to be recognized as revenue during 2012, with the remainder to be recognized in future periods beyond 2012. Our adjusted EBITDA for the nine months ended September 30, 2011 was $4.2 million, and our adjusted EBITDA for the year ended December 31, 2010 was $4.6 million. Our net loss increased to $4.5 million for the nine months ended September 30, 2011 from $2.9 million for the nine months ended September 30, 2010. Our net loss decreased to $1.8 million for the year ended December 31, 2010 from $5.3 million from the year ended December 31, 2009. Since inception, we have incurred net losses leading to an accumulated deficit of $75.0 million as of September 30, 2011.

How We Generate Revenue

Our business model aligns our interests with those of our customers as we collaborate to develop proprietary technology and IP for high-volume integrated devices through CDPs. As such, our customer engagement process generates revenue in three ways: CDP and services revenue; product revenue; and

licensing and royalty revenue. CDPs are our primary engagement model with customers and are structured to result in licensing and royalty revenue. When we initially engage with a customer, we generate revenue from micro-CDPs, CDPs and licensing of our HPC platform. When technology developed through CDPs is incorporated in our customers' commercialized products, we generate licensing and royalty revenue. In certain cases, we sell HPC processing tools to our customers who pay a recurring license fee to operate those tools with our combinatorial processing capabilities.

	Years Ended December 31,			Nine Months Ended September 30,	
	2008	2009	2010	2010	2011
				(unaudited)	
			(in thousands)		
Revenue:					
CDP and services revenue	$ 14,647	$ 14,182	$ 27,705	$ 17,992	$ 26,169
Product revenue	6,206	9,065	6,959	4,935	2,038
Licensing and royalty revenue	2,276	3,663	8,010	5,583	10,491
Total revenue	$ 23,129	$ 26,910	$ 42,674	$ 28,510	$ 38,698

CDP and services revenue. CDP revenue includes payments for full time equivalent (FTE) employees, milestone payments, subscription payments for dedicated workflow tools used in the CDP, reimbursed payments for consumables and outside services from third parties. Individual CDPs typically range from one to three years. Services revenue outside of CDPs is substantially comprised of support and maintenance fees and extended warranty agreements.

Product revenue. Product revenue consists of sales of our workflow hardware and embedded software. In support of our business strategy, we selectively sell our proprietary tools to increase opportunities for CDPs and licensing fees and royalties. Historically, we have not sold a significant number of our workflow products and we do not anticipate selling a significant number in the future. As our other revenue streams increase we expect our product revenue to decrease as a percentage of our overall revenue. We recognize revenue from the sale of products generally on a straight-line basis over the maintenance period once delivery has occurred (title and risk of loss have passed to the customer), and customer acceptance, if required, has been achieved.

Licensing and royalty revenue. Licensing and royalty revenue consists of licensing fees and royalties for granting our customers rights to our proprietary technology and IP. Specifically, this includes licensing the HPC capabilities of our workflows, licensing our informatics and analysis software and licensing fees and royalties on products commercialized by our customers that incorporate technology developed through our CDPs. In the last three years, licensing and royalty revenue has been the fastest growing element of our revenue. Over the long term, we expect licensing and royalty revenue to be an increasing and significant component of our revenue.

Our revenue growth has been primarily driven by the adoption of our collaboration model and HPC platform leading to both new CDPs and the ramp of licensing and royalty revenue from products commercialized by our customers that incorporate technology developed through our CDPs. Successful CDPs result in the commercialization of products whereby we receive licensing fees and royalties over the course of the respective product cycles. Certain of our semiconductor customers have already commenced shipping products incorporating technology developed through our CDPs, which generate associated licensing and royalty revenue. Our revenue mix may vary from quarter to quarter as we enter into new CDPs and related customer arrangements, existing CDPs are completed or expanded and licensing and royalty arrangements generate revenue.

Prior to entering into a new CDP, we negotiate licensing fees and royalty rates for technology to be developed in CDPs. The fees and rates are negotiated with each customer on the basis of multiple

factors including the size of the servable market of the technology to be developed, the value contribution of the technology to the customer's product, and the anticipated overall margin structure of the customer's product. Licensing fees and royalty rates are set for each CDP-developed technology. While royalty rates vary, when working with device manufacturers, we typically target 1-2% of their projected end-product revenue for each CDP-developed technology. When working with suppliers to device manufacturers, we typically target higher royalty rates depending on the anticipated value contribution of the technology to their product. Licensing fees and royalty rates are structured in a variety of ways including fixed quarterly fees, percentage of revenue and fee per product.

Our proprietary platform was initially created to address critical development challenges in the semiconductor industry and we began generating revenue in 2006. The applicability of our platform to address similar challenges in adjacent vertical markets such as clean-energy markets has created, and we believe will continue to create, new market opportunities for us. During the year ended December 31, 2010, we began generating revenue from customers in the clean-energy industry. We believe collaborating with companies in the clean-energy industry will accelerate the long-term growth of our business. The following table sets forth our revenue by customer end market:

	Years Ended December 31,			Nine Months Ended September 30,	
	2008	2009	2010	2010	2011
				(unaudited)	
			(in thousands)		
Semiconductor	$ 23,129	$ 26,910	$ 40,678	$ 27,457	$ 35,546
Clean energy	–	–	1,996	1,053	3,152
Total	$ 23,129	$ 26,910	$ 42,674	$ 28,510	$ 38,698

Key Financial Metrics

We monitor the key financial metrics set forth below to help us evaluate growth trends, establish budgets, measure the effectiveness of our sales and marketing efforts, manage our human resources and assess operational efficiencies.

Revenue growth and mix. We monitor revenue from CDPs for existing and new customers, applications and the resulting licensing fees and royalties. As our customer engagements progress, we expect licensing and royalty revenue to be an increasing and significant component of our revenue. We are broadening our development and sales efforts by expanding CDPs in the semiconductor industry resulting from the adoption of our HPC platform for technology development and engaging in CDPs with companies in the clean-energy industry as we believe this will accelerate the future growth of our business.

Backlog. We monitor our backlog as it represents the aggregate value of contracted business not yet recognized. Our backlog consists of future revenue that our customers are contractually committed to pay in our CDPs and guaranteed licensing and royalty revenue for our developed technology and intellectual property. Our backlog as of September 30, 2011, December 31, 2010 and 2009 was $94.5 million, $78.2 million and $34.5 million, respectively. As of September 30, 2011, our backlog for customers in the semiconductor industry was $92.4 million, of which $13.2 million is scheduled to be recognized as revenue during the remainder of the year ending December 31, 2011 and $43.3 million is scheduled to be recognized as revenue during 2012, with $35.9 million to be recognized in future periods beyond 2012. As of September 30, 2011, our backlog for customers in the clean-energy industry was $2.1 million, of which $0.8 million is scheduled to be recognized as revenue during the remainder of the year ending December 31, 2011 and $1.3 million is scheduled to be recognized during 2012.

Adjusted EBITDA. We monitor our adjusted EBITDA to measure the profitability of our business. We use adjusted EBITDA as a key performance measure because we believe it facilitates operating performance comparisons from period to period by excluding potential differences caused by variations

in capital structures, tax positions (such as the impact of changes in effective tax rates or fluctuations in permanent differences or discrete quarterly items), the impact of depreciation and amortization expense, the non-cash impact of the mark-to-market of our derivative liability as a result of the Symyx asset purchase transaction and common stock warrants issued to customers and the impact of stock-based compensation expense. See "Selected Consolidated Financial Data−Non-GAAP Financial Measure" for a reconciliation of adjusted EBITDA to our net income (loss), the most comparable GAAP measure.

Factors Affecting our Performance

Reliance on our customers' success. Our success is tied to our customers' ability to successfully commercialize the products that incorporate technology developed through CDPs. We believe that we significantly improve our customers' ability to succeed in their end markets, but if they are unable to do so, the longer-term licensing and royalty revenue that we expect may be delayed or may not materialize. We attempt to manage this risk by carefully selecting projects and only participating in opportunities that we deem to have significant potential for long-term success.

Exposure to semiconductor memory and solar power end markets. Our performance is linked to the end markets in which our customers operate. Certain of these markets, such as the semiconductor memory markets and the solar panel market, have historically shown significant price volatility as a result of imbalances in supply and demand. As such, these markets have been traditionally challenging for participants. We believe that we manage this end market risk by participating in multiple end markets and by selecting customers that we believe will be successful in those markets.

Revenue mix and royalty rates. Our revenue from CDPs and product sales vary from contract to contract depending on the customer's requirements and the scope of the collaboration. The gross profit from CDPs and product sales may vary based on the size and scope of the contract. Our royalty rates vary from contract to contract depending on multiple factors, including the industry, the scope of our collaboration, and the degree to which our IP is central to the development of a given product. Individual royalty opportunities vary depending on the end market size and the duration of the specific end product life cycle. The gross profit from licensing and royalty revenue may vary based on the size and scope of the contract. We target an average gross margin contribution that is consistent across the industries and end markets we serve.

Long sales cycles. Our sales cycles are long, and we commit significant resources to and incur significant expenses for a project before a potential customer commits to use our HPC platform or CDPs. To be successful, we must establish contact with potential customers, often with senior management or executive officers, and educate them about the benefits of our HPC platform. Our sales cycles to date have typically ranged from 9 to 24 months and may be even longer in the future. Investment of time and resources in a particular customer engagement that does not ultimately result in material revenue will adversely affect our revenue and results of operations.

Customer concentration. Due to the concentrated nature of manufacturers in the DRAM, flash memory and complex logic markets, our revenue is and may continue to be concentrated to key high-volume customers. For example, our five largest customers in the nine months ended September 30, 2011, all of which are in the semiconductor industry, accounted for 82% of our revenue. These customers collectively reported approximately $28 billion of semiconductor revenue in 2010, and we believe there is an opportunity to expand our engagements with these customers into new applications over time. In addition, because our platform is broadly applicable to semiconductors, flat glass, solar cells, LEDs, flat-panel displays, advanced batteries and other energy-efficient technologies, we believe we have significant opportunities to engage with a broad range of customers.

Related Party Transactions. Some of our customers and other business partners hold a significant stake in our capital stock. Related party transactions disclosed in our financial statements accounted for $15.6 million and $26.0 million, or 40.2% and 61.0%, respectively, of our revenue for the nine months

ended September 30, 2011 and the year ended December 31, 2010. ATMI, which beneficially owns approximately 10.6% of our capital stock as of October 15, 2011, accounted for $11.7 million and $22.1 million, or 30.1% and 51.8%, respectively, of our revenue for the nine months ended September 30, 2011 and the year ended December 31, 2010. We believe that the transactions and agreements that we have entered into with related parties are on terms that are at least as favorable as could reasonably have been obtained at such time from third parties. However, these relationships could create, or appear to create, potential conflicts of interest when our board of directors is faced with decisions that could have different implications for us and our related parties or their affiliates. In addition, conflicts of interest may arise between us and our related parties and their affiliates. The appearance of conflicts, even if such conflicts do not materialize, might adversely affect the public's perception of us, as well as our relationship with other companies and our ability to enter into new relationships in the future, including new CDPs with competitors of such related parties, which could have a material adverse effect on our ability to do business.

Warrants Issued in Connection with a CDP

In March 2010, in connection with a CDP, we issued contingent warrants to two customers to purchase an aggregate of up to 822,368 shares of our common stock at a cash exercise price of $6.08288 per share. The exercise price was equal to the price of the then-most recent sale of preferred stock. These warrants become exercisable for four months after an election by the holders to license technology developed through the associated CDP. If either of the customers elect to license this technology, we will record a one-time, non-cash charge based on the fair value of these warrants as measured on the date of election against any revenue derived from these agreements. The fair value will be determined using the Black-Scholes option pricing model and may be significant. This election is available to the customers through May 2012 and may be extended for up to an additional two years if the customers extend the CDP.

In June 2011, in connection with a CDP, we issued a fully vested and exercisable warrant to a customer to purchase 411,000 shares of our common stock at a cash exercise price of $8.30824 per share. The exercise price was equal to the price of the then-most recent sale of preferred stock. The fair value of the warrant as measured on the date of grant using the Black-Scholes options pricing model was $312,000 and was recognized as a reduction of revenue derived from the agreement during the nine month period ended September 30, 2011. This warrant will be exercised in connection with the offering.

Cost of Revenue and Operating Expenses

Cost of Revenue

The following table sets forth our cost of revenue by revenue category:

	Years Ended December 31,			Nine Months Ended September 30,	
	2008	2009	2010	2010	2011
				(unaudited)	
			(in thousands)		
Cost of revenue:					
Cost of CDP and services revenue	$ 9,141	$ 8,849	$ 16,855	$ 11,214	$ 16,749
Cost of product revenue	3,370	3,972	3,665	2,490	710
Cost of licensing and royalty revenue	114	197	406	284	540
Total cost of revenue	$ 12,625	$ 13,018	$ 20,926	$ 13,988	$ 17,999

Our cost of revenue is variable and depends on the product mix and type of revenue earned in each period relating to our customer programs. As customers commercialize products that incorporate

technology developed through our CDPs, we expect our cost of revenue to decrease as a percentage of total revenue as licensing and royalty revenue become an increasing component of our revenue.

Cost of CDP and services revenue. Our cost of CDP and services revenue is primarily comprised of salaries and other personnel-related expenses (including stock-based compensation) for our collaborative research and development scientists, engineers and development fab process operations employees. Additionally, our cost of revenue includes costs of wafers, targets, materials, program-related supplies and depreciation of equipment used in CDPs.

Cost of product revenue. Our cost of product revenue primarily includes our cost of products sold. Our cost of product revenue will fluctuate based on the type of product and configuration sold. Historically, we have not sold a significant number of our workflow products and we do not anticipate selling a significant number in the future. Our cost of product revenue is recognized in a similar manner as the corresponding product revenue and is generally recognized on a straight-line basis over the maintenance period. The variability in cost of product revenue as a percentage of revenue is related to the quantity and configuration of products sold during the period and the corresponding maintenance period that product revenue and cost of product revenue is being recognized.

Cost of licensing and royalty revenue. Our cost of licensing and royalty revenue includes license fees paid to Symyx.

Research and Development

Our R&D expenses consist of costs incurred for development and continuous improvement of our HPC platform, expansion of software capabilities and application research and development that are not associated with customer programs. R&D costs include personnel-related expenses (including stock-based compensation expenses), for our technical staff as well as consultant costs, parts and prototypes, wafers, chemicals, supply costs, facilities costs, utilities costs related to laboratories and offices occupied by technical staff, depreciation on equipment used by technical staff, and outside services, such as machining and third-party R&D costs. Overhead costs that are not allocated to a customer program are recognized as expenses within R&D. We expect our R&D expenses will continue to increase for the foreseeable future as we continue to devote substantial internal resources to develop and improve our HPC platform and extend the applicability of our platform to a broader set of applications within the industries we serve.

Sales and Marketing

Our sales and marketing expenses consist primarily of personnel-related costs (including stock-based compensation) for our sales and marketing employees, as well as payments of commissions to our sales employees, facility costs and professional expenses. Professional expenses consist of external website and marketing communication consulting costs and market research. We expect that our sales and marketing expenses will continue to increase for the foreseeable future as we increase the number of our sales and marketing employees to support the growth in our business and as we incur external marketing communication costs.

General and Administrative

General and administrative expenses consist primarily of personnel-related costs (including stock-based compensation) as well as professional services and facilities costs related to our executive, finance, legal, human resources, management information systems and information technology functions. Professional services consist of outside accounting, information technology, consulting and legal costs.

Following the consummation of this offering, we expect to incur significant additional accounting and legal costs related to compliance with rules and regulations enacted by the Securities and Exchange Commission, including the additional costs of achieving and maintaining compliance with Section 404 of

the Sarbanes-Oxley Act, as well as additional insurance, investor relations and other costs associated with being a public company. In addition to these expenses, we expect that our general and administrative expenses will continue to increase for the foreseeable future.

Interest Income, net

Interest income represents interest earned on our cash, cash equivalents and short-term investments. We expect interest income will vary each reporting period depending on our average investment balances during the period and market interest rates.

Interest expense consists of interest accrued or paid on lines of credit outstanding. We expect interest expense to fluctuate in the future with changes in obligations and market interest rates.

Other Income (Expense), net

Other income consists of municipal economic development grant proceeds received during the year ended December 31, 2010. Other income (expense), net also consists of the change in fair value of our preferred stock warrants and derivative liability and other income. Our outstanding preferred stock warrant, which was issued in connection with a line of credit, is classified as a liability and is remeasured to fair value at each balance sheet date with the corresponding gain or loss from the adjustment recorded as other income (expense), net. We will continue to record adjustments to the fair value of the preferred stock warrant until it is exercised, automatically converted into a warrant to purchase common stock or expires, at which time the warrant will no longer be remeasured at each balance sheet date. In connection with entering into the Symyx asset purchase transaction we recorded a derivative liability representing the value of the guaranteed return to Symyx and reimbursement of 50% of the underwriting discounts and commissions payable in connection with our initial public offering. We will adjust the fair value of the derivative liability to market value at each balance sheet date with any change in the market value being recorded in other income (expense), net, until the consummation of our initial public offering or upon expiration of the purchase transaction.

Provision for Income Taxes

We are subject to taxes in the United States as well as other tax jurisdictions or countries in which we conduct business. Earnings from our non-U.S. activities are subject to local country income tax and may be subject to current U.S. income tax. To date, we have incurred net losses and have not recorded any U.S. federal income tax benefits as these losses have been offset by valuation allowances. As of December 31, 2010, we had net operating loss carryforwards for federal and state income tax purposes of approximately $17.4 million and $18.5 million, respectively, to offset future taxable income. In addition, we had $2.5 million in U.S. federal R&D credit and $2.5 million in California R&D credit carryforwards to offset future income tax liabilities. Our ability to use our net operating loss carryforwards to offset future taxable income and our ability to use our tax credit carryforwards to offset future income tax liabilities may be subject to certain limitations arising from "ownership changes" within the meaning of Section 382 of the Internal Revenue Code.

Results of Operations

Comparison of the Nine Months Ended September 30, 2010 and 2011

	Nine Months Ended September 30,			
	2010	2011	$ Change	% Change
	(unaudited)			
	(in thousands)			
Revenue:				
CDP and services revenue	$ 17,992	$ 26,169	$ 8,177	45%
Product revenue	4,935	2,038	(2,897)	(59)%
Licensing and royalty revenue	5,583	10,491	4,908	88%
Total revenue	28,510	38,698	10,188	36%
Cost of revenue	13,988	17,999	4,011	29%
Gross profit	14,522	20,699	6,177	43%
Operating expenses:				
Research and development	10,217	14,601	4,384	43%
Sales and marketing	3,056	3,229	173	6%
General and administrative	4,250	6,156	1,906	45%
Total operating expenses	17,523	23,986	6,463	37%
Loss from operations	(3,001)	(3,287)	(286)	10%
Other income (expense):				
Interest income, net	37	16	(21)	
Other income (expense), net	71	(1,174)	(1,245)	
Total other income (expense), net	108	(1,158)	(1,266)	
Loss before provision for income taxes	(2,893)	(4,445)	(1,552)	
Provision for income taxes	8	19	11	
Net loss	$ (2,901)	$ (4,464)	$ (1,563)	

Revenue

Our revenue increased by $10.2 million, or 36%, to $38.7 million during the nine months ended September 30, 2011 from $28.5 million during the nine months ended September 30, 2010. This increase was due to increases in CDP and services revenue and licensing and royalty revenue of $13.1 million which were partially offset by decreases in product revenue of $2.9 million.

CDP and services revenue increased by $8.2 million, or 45%, to $26.2 million during the nine months ended September 30, 2011 from $18.0 million during the nine months ended September 30, 2010. This increase was primarily attributable to $4.8 million in revenue derived from new customer engagements, combined with $5.7 million from the expansion of existing customer engagements, offset by a $2.3 million decrease in revenue from the scheduled completion of CDPs. Of the new customer engagements, $4.3 million in revenue was derived from two new CDPs.

Product revenue decreased by $2.9 million, or 59%, to $2.0 million during the nine months ended September 30, 2011 from $4.9 million during the nine months ended September 30, 2010. The decrease in product revenue is due to differences in both the type of product sold during each period as well as the length of the corresponding maintenance periods for the respective products for which the revenue was recognized. We have not had any product sales of our workflow hardware that were initiated during 2011.

Licensing and royalty revenue increased by $4.9 million, or 88%, to $10.5 million during the nine months ended September 30, 2011 from $5.6 million during the nine months ended September 30,

2010. This increase was primarily attributable to an increase in sales of products subject to licensing fees and royalties, including minimum license fees as guaranteed by customer contracts.

The following table presents revenue by geographic region (based on invoiced locations) during the nine months ended September 30, 2011 and 2010 in dollars (in thousands) and as a percentage of revenue for the periods presented:

	Nine Months Ended September 30,			
	2010		2011	
	Revenue	% of Revenue	Revenue	% of Revenue
	(unaudited)			
	(in thousands)		(in thousands)	
United States	$ 20,158	71%	$ 25,218	65%
Japan	8,142	28%	11,231	29%
Taiwan	–	0%	2,199	6%
Europe	210	1%	50	0%
Total	$ 28,510	100%	$ 38,698	100%

Cost of Revenue

Cost of revenue increased by $4.0 million, or 29%, to $18.0 million during the nine months ended September 30, 2011 from $14.0 million during the nine months ended September 30, 2010. This change is directly attributable to the increased CDP and services revenue we recognized from our new and ongoing customer engagements, which resulted in a $5.5 million increase in direct labor, materials and other costs associated with these programs. Additionally, cost of licensing and royalty revenue increased by $0.3 million directly attributable to increased licensing and royalty revenue. This increase was partially offset by a $1.8 million decrease in cost of product revenue associated with the decrease in product revenue recognized during the period.

Cost of revenue as a percentage of revenue decreased slightly from the prior nine month period from 49% during the nine months ended September 30, 2010 to 47% during the nine months ended September 30, 2011. To the extent we are successful in growing our revenue and increasing licensing and royalty revenue as a percentage of revenue we expect our cost of revenue as a percentage of total revenue to decline.

Research and Development

R&D expenses increased by $4.4 million, or 43%, to $14.6 million during the nine months ended September 30, 2011 from $10.2 million during the nine months ended September 30, 2010. The change is primarily attributable to $1.8 million in higher personnel costs as a result of increased headcount, $0.7 million increase in facility and occupancy-related costs due to clean room expansion, $1.5 million increase in depreciation expense, and $0.2 million in consulting and professional service fees.

Sales and Marketing

Sales and marketing expenses increased by $0.1 million, or 6%, to $3.2 million during the nine months ended September 30, 2011 from $3.1 million during the nine months ended September 30, 2010. The change is primarily due to higher consulting and personnel costs related to increased stock-based compensation expense during the nine months ended September 30, 2011.

General and Administrative

General and administrative expenses increased by $1.9 million, or 45%, to $6.2 million during the nine months ended September 30, 2011 from $4.3 million during the nine months ended September 30, 2010. The increase is primarily attributable to $0.9 million in higher professional fees associated with

legal and accounting services, $0.7 million in higher personnel costs as a result of increased headcount, and $0.3 million in increased facility expenses.

Interest Income, net

Interest income, net decreased by $21,000 to $16,000 during the nine months ended September 30, 2011 from $37,000 during the nine months ended September 30, 2010. The decrease was primarily attributable to lower interest rates.

Loss from Operations

Our operating loss increased by $0.3 million, to an operating loss of $(3.3) million during the nine months ended September 30, 2011 from an operating loss of $(3.0) million during the nine months ended September 30, 2010. To the extent we are successful in growing our revenue and increasing licensing and royalty revenue as a percentage of our total revenue, and if our expenses increase at a slower rate than our revenue, we expect that our net loss will decrease in the future. Our operating expenses increased by $6.5 million to $24.0 million during the nine months ended September 30, 2011 from $17.5 million during the nine months ended September 30, 2010. We expect our operating expenses to continue to increase as we expand and invest in our business, making investments in both personnel and capital resources leading to increased depreciation expense.

Other Income (Expense), net

Other income (expense), net decreased by $1.3 million to an expense of $(1.2) million during the nine months ended September 30, 2011 from income of $0.1 million during the nine months ended September 30, 2010. This decrease was due to the mark-to-market of our preferred stock warrant and derivative liabilities to their current fair values.

Provision for Income Taxes

Provision for income taxes as of September 30, 2011 and 2010 consisted of income taxes on our foreign entities and were not significant during either period.

Net Loss

Our net loss increased by $1.6 million, to a net loss of $4.5 million during the nine months ended September 30, 2011 from a net loss of $2.9 million during the nine months ended September 30, 2010. The increase in net loss from our operating loss during the nine months ended September 30, 2011 was primarily attributed to the mark-to-market of our preferred stock warrant and derivative liabilities to their current fair values that resulted in an expense of $1.3 million.

Comparison of the Years Ended December 31, 2009 and 2010

	Years Ended December 31,			
	2009	2010	$ Change	% Change
	(in thousands)			
Revenue:				
CDP and services revenue	$ 14,182	$ 27,705	$ 13,523	95%
Product revenue	9,065	6,959	(2,106)	(23)%
Licensing and royalty revenue	3,663	8,010	4,347	119%
Total revenue	26,910	42,674	15,764	59%
Cost of revenue	13,018	20,926	7,908	61%
Gross profit	13,892	21,748	7,856	57%
Operating expenses:				
Research and development	10,983	13,917	2,934	27%
Sales and marketing	3,211	4,074	863	27%
General and administrative	4,867	5,761	894	18%
Total operating expenses	19,061	23,752	4,691	25%
Loss from operations	(5,169)	(2,004)	3,165	
Other income (expense):				
Interest income, net	(6)	43	49	
Other income (expense), net	(62)	202	264	
Total other income (expense), net	(68)	245	313	
Loss before provision for income taxes	(5,237)	(1,759)	3,478	
Provision for income taxes	17	19	2	
Net loss	$ (5,254)	$ (1,778)	$ 3,476	

Revenue

Our revenue increased by $15.8 million, or 59%, to $42.7 million during the year ended December 31, 2010 from $26.9 million during the year ended December 31, 2009, primarily due to increases in revenue from CDPs and licensing arrangements partially offset by reductions in revenue from product revenue.

CDP and services revenue increased by $13.5 million, or 95%, to $27.7 million during the year ended December 31, 2010 from $14.2 million during the year ended December 31, 2009. This change is attributable to $10.2 million in revenue derived from three customer engagements, including one for a customer in the clean-energy industry, that commenced during the year ended December 31, 2010. The remaining $3.3 million increase is due to the net effect of expansions of existing CDPs, partially offset by reductions from the scheduled completion of two CDPs.

Product revenue decreased by $2.1 million, or 23%, to $7.0 million during the year ended December 31, 2010 from $9.1 million during the year ended December 31, 2009. This decrease is primarily attributable to the recognition of revenue during the year ended December 31, 2009 from four workflow platform sales as compared to recognition of revenue during the year ended December 31, 2010 from two workflow platform sales.

Licensing and royalty revenue increased by $4.3 million, or 119%, to $8.0 million during the year ended December 31, 2010 from $3.7 million during the year ended December 31, 2009. This change is primarily attributable to a $2.5 million increase in licensing fees and royalties from commercialized products and a $1.8 million increase in licensing fees from licenses to the HPC capabilities of our workflows and other technology.

Revenue to customers in the various geographic regions remained relatively unchanged. The following table presents revenue by geographic region (based on invoiced locations) during the years ended December 31, 2010 and 2009 in dollars and as a percentage of revenue for the periods presented:

	Years Ended December 31,			
	2009		2010	
	Revenue	% of Revenue	Revenue	% of Revenue
	(in thousands)		(in thousands)	
United States	$ 18,894	70%	$ 29,526	70%
Japan	7,906	30%	12,449	29%
Taiwan	–	0%	489	1%
Europe	110	0%	210	0%
Total	$ 26,910	100%	$ 42,674	100%

Cost of Revenue

Cost of revenue increased by $7.9 million, or 61%, to $20.9 million during the year ended December 31, 2010 from $13.0 million during the year ended December 31, 2009. This change is directly attributable to the increased CDP and services revenue during the year ended December 31, 2010 that we recognized from our new and ongoing CDPs, which resulted in a $8.0 million increase in direct labor, materials and other costs associated with these programs, including an increase in licensing fees payable to Symyx in the amount of $0.9 million. Additionally, cost of licensing and royalty revenue increased by $0.2 million directly attributable to increased licensing and royalty revenue. These increases were partially offset by a $0.3 million decrease in direct workflow platform costs due to fewer workflow platform sales during the year ended December 31, 2010.

Cost of revenue as a percentage of revenue remained consistent with the prior year and was 49% and 48% during the years ended December 31, 2010 and 2009, respectively. To the extent we are successful in growing our revenue and increasing licensing and royalty revenue as a percentage of revenue we expect our cost of revenue as a percentage of total revenue to decline.

Research and Development

R&D expenses increased by $2.9 million, or 27%, to $13.9 million during the year ended December 31, 2010 from $11.0 million during the year ended December 31, 2009. The change is attributable to $2.1 million in higher personnel costs as a result of increased headcount, a $1.6 million increase in facility and occupancy-related costs due to clean room expansion, $0.8 million in parts costs for internal R&D projects and $0.3 million of higher consulting and professional service fees. These increases were partially offset by a decrease in R&D expenses due to an increase in the use of equipment for CDPs resulting in an increase in the allocation of expenses to cost of revenue during the year ended December 31, 2010 as compared to the year ended December 31, 2009.

Sales and Marketing

Sales and marketing expenses increased by $0.9 million, or 27%, to $4.1 million during the year ended December 31, 2010 from $3.2 million during the year ended December 31, 2009. The change is primarily attributable to $0.5 million in higher personnel costs related to commissions earned on 2010 bookings and collections combined with $0.2 million in higher travel, entertainment and marketing expenses attributable to increased sales and marketing efforts during the year ended December 31, 2010.

General and Administrative

General and administrative expenses increased by $0.9 million, or 18%, to $5.8 million during the year ended December 31, 2010 from $4.9 million during the year ended December 31, 2009. The increase is primarily attributable to $0.5 million in higher personnel costs as a result of increased headcount, $0.2 million in higher professional fees, $0.1 million in higher facility and occupancy-related costs and $0.1 million in higher travel and entertainment costs.

Interest Income, net

Interest income, net changed by $49,000 to income of $43,000 during the year ended December 31, 2010 from an expense of $6,000 during the year ended December 31, 2009. The change is due primarily to the $0.1 million reduction in interest expense during the year ended December 31, 2010 due to the repayment of our obligations under our amended loan and security agreement which were partially offset by $44,000 of interest income earned on our cash, cash equivalents and short-term investments.

Loss from Operations

Our operating loss decreased by $3.2 million, to an operating loss of $2.0 million during the year ended December 31, 2010 from an operating loss of $5.2 million during the year ended December 31, 2009. The decrease in operating loss is related to increased revenue and the composition of that revenue. The increase in licensing and royalty revenue as a percentage of our total revenue and the increase in our operating expenses growing at a slower rate than revenue have resulted in a decrease in our operating loss.

Other Income (Expense), net

Other income (expense) increased by $0.3 million to income of $0.2 million during the year ended December 31, 2010 from an expense of $0.1 million during the year ended December 31, 2009. The change was directly attributable to municipal economic development grant proceeds we received during the year ended December 31, 2010.

Provision for Income Taxes

The income tax provision for the year ended December 31, 2010 was $19,000 compared to $17,000 for the year ended December 31, 2009. Both amounts consisted of income taxes on our foreign entities and were not significant in either period.

Net Loss

Our net loss decreased by $3.5 million, to a net loss of $1.8 million during the year ended December 31, 2010 from a net loss of $5.3 million during the year ended December 31, 2009. The decrease in net loss from our operating loss during the year ended December 31, 2010 was primarily attributed to municipal economic development grant proceeds and interest income we received during the year.

Comparison of the Years Ended December 31, 2008 and 2009

	Years Ended December 31,			
	2008	2009	$ Change	% Change
	(in thousands)			
Revenue:				
CDP and services revenue	$ 14,647	$ 14,182	$ (465)	(3)%
Product revenue	6,206	9,065	2,859	46%
Licensing and royalty revenue	2,276	3,663	1,387	61%
Total revenue	23,129	26,910	3,781	16%
Cost of revenue	12,625	13,018	393	3%
Gross profit	10,504	13,892	3,388	32%
Operating expenses:				
Research and development	11,849	10,983	(866)	(7)%
Sales and marketing	3,849	3,211	(638)	(17)%
General and administrative	4,300	4,867	567	13%
Total operating expenses	19,998	19,061	(937)	(5)%
Loss from operations	(9,494)	(5,169)	4,325	
Other income (expense):				
Interest income, net	174	(6)	(180)	
Other income (expense), net	6	(62)	(68)	
Total other income (expense), net	180	(68)	(248)	
Loss before provision for income taxes	(9,314)	(5,237)	4,077	
Provision for income taxes	186	17	(169)	
Net loss	$ (9,500)	$ (5,254)	$ 4,246	

Revenue

Our revenue increased by $3.8 million, or 16%, to $26.9 million during the year ended December 31, 2009 from $23.1 million during the year ended December 31, 2008 primarily due to increases in product revenue and licensing and royalty revenue offset by a reduction in revenue from ongoing CDPs.

CDP and services revenue decreased by $0.5 million, or 3%, to $14.2 million during the year ended December 31, 2009 from $14.6 million during the year ended December 31, 2008. The change is primarily due to a decrease in revenue of $4.0 million from the scheduled completion of CDPs, offset by a $3.5 million increase in revenue from the expansion of existing CDPs.

Product revenue increased by $2.9 million, or 46%, to $9.1 million during the year ended December 31, 2009 from $6.2 million during the year ended December 31, 2008. The increase in revenue during the year ended December 31, 2009 is primarily attributable to the recognition of revenue during the year ended December 31, 2008 from two workflow platform sales as compared to the recognition of revenue during the year ended December 31, 2009 from two previous and two additional workflow platform sales.

Licensing and royalty revenue increased by $1.4 million, or 61%, to $3.7 million during the year ended December 31, 2009 from $2.3 million during the year ended December 31, 2008. This change is primarily attributable to a $0.5 million increase in licensing and royalty fees from commercialized products and a $0.9 million increase in licensing fees from licenses to the HPC capabilities of our workflows.

Revenue from customers in the various geographic regions (based on invoiced locations) remained relatively unchanged. The following table presents revenue by geographic region during the years ended December 31, 2008 and 2009 in dollars and as a percentage of revenue for the periods presented:

	Years Ended December 31,			
	2008		2009	
	Revenue	% of Revenue	Revenue	% of Revenue
	(in thousands)		(in thousands)	
United States	$ 16,522	72%	$ 18,894	70%
Japan	6,267	27%	7,906	30%
Taiwan	90	0%	–	0%
Europe	250	1%	110	0%
Total	$ 23,129	100%	$ 26,910	100%

Cost of Revenue

Cost of revenue increased by $0.4 million, or 3%, to $13.0 million during the year ended December 31, 2009 from $12.6 million during the year ended December 31, 2008. The increase is directly attributable to the increase in product revenue during the year ended December 31, 2009, which resulted in a $0.6 million increase in direct workflow platform costs, including an increase in licensing fees payable to Symyx in the amount of $0.1 million. Additionally, cost of licensing and royalty revenue increased by $0.1 million directly attributable to increased licensing and royalty revenue. These increases were partially offset by a $0.3 million reduction in direct labor, materials and other costs associated with our ongoing CDPs due to the reduction in services revenue during the year ended December 31, 2009.

Research and Development

R&D expenses decreased by $0.9 million, or 7%, to $11.0 million during the year ended December 31, 2009 from $11.8 million during the year ended December 31, 2008. The decrease is attributable to a $1.1 million decrease in personnel costs, $0.7 million reduction in parts costs for internal R&D programs and $0.3 million reduction in consulting and professional service fees due to R&D personnel being used for ongoing CDPs during the year ended December 31, 2009 as compared to being used during the year ended December 31, 2008 for internal R&D projects. These decreases were partially offset by an increase in facility and occupancy-related expenses and an increase in R&D expenses due to a reduction in the use of equipment for CDPs resulting in a decrease in the allocation of expenses to cost of revenue during the year ended December 31, 2009 as compared to the year ended December 31, 2008.

Sales and Marketing

Sales and marketing expenses decreased by $0.6 million, or 17%, to $3.2 million during the year ended December 31, 2009 from $3.8 million during the year ended December 31, 2008. The decrease is attributable to a $0.3 million decrease in personnel costs related to staff turnover and reduced commission expense and $0.3 million decrease in travel, entertainment and marketing expenses.

General and Administrative

General and administrative expenses increased by $0.6 million, or 13%, to $4.9 million during the year ended December 31, 2009 from $4.3 million during the year ended December 31, 2008. The increase is attributable to $0.3 million in higher facility and occupancy-related costs, $0.2 million in higher personnel costs due to changes in headcount and $0.1 million in higher consulting and professional services costs.

Interest Income, net

Interest income, net decreased by $0.2 million to an expense of $6,000 during the year ended December 31, 2009 from $0.2 million during the year ended December 31, 2008. The change is attributable to a $0.5 million reduction in interest income combined with a $0.3 million reduction in interest expense. The decrease in interest income is attributable to lower average cash, cash equivalents and short-term investments on hand during the year ended December 31, 2009 compared to the year ended December 31, 2008 as we used the proceeds received from our Series D convertible preferred stock financing during the year ended December 31, 2008 for capital expenditures and principal repayments on our debt obligations during the year ended December 31, 2009. The decrease in interest expense is attributable to the repayment of our obligations under our amended loan and security agreement in February 2009.

Loss from Operations

Our operating loss decreased by $4.3 million, to an operating loss of $5.2 million during the year ended December 31, 2009 from an operating loss of $9.5 million during the year ended December 31, 2008. The decrease in operating loss is related to increased product and licensing and royalty revenue. The increase in revenue combined with the overall decline in operating expense has resulted in a decrease in our operating loss during the year ended December 31, 2009.

Other Income (Expense), net

Other income (expense) decreased by $0.1 million to an expense of $0.1 million during the year ended December 31, 2009 from income of $6,000 during the year ended December 31, 2008. The change is not significant.

Provision for Income Taxes

The tax provision for the year ended December 31, 2009 of $17,000 consisted of $13,000 in foreign income taxes on our foreign entities and $4,000 in state income taxes. The tax provision for the year ended December 31, 2008 of $186,000 consisted of $11,000 in income taxes on our foreign entities and $175,000 in state income taxes.

Net Loss

Our net loss was essentially the same as our loss from operations for the years ended December 31, 2009 and December 31, 2008.

Liquidity and Capital Resources

To date, we have substantially satisfied our capital and liquidity needs through private placements of redeemable convertible preferred stock and, to a lesser extent, cash flow from operations. As of September 30, 2011, we had $29.5 million of cash, cash equivalents and short-term investments and $17.2 million of net working capital. During the nine months ended September 30, 2011, we closed a private placement of our Series E redeemable convertible preferred stock for $24.9 million in net proceeds. As of September 30, 2011, we had no debt outstanding.

To date, we have incurred significant losses. During the nine months ended September 30, 2011 and 2010 and the years ended December 31, 2010, 2009 and 2008, we incurred net losses of $4.5 million, $2.9 million, $1.8 million, $5.3 million and $9.5 million. As of September 30, 2011, our accumulated deficit was $75.0 million.

We have experienced positive cash flows from operations during the years ended December 31, 2010, 2009 and 2008. We may continue to generate positive cash flows from operations on an annual basis, although this may fluctuate significantly on a quarterly basis. As such, we believe that our existing sources of liquidity will be sufficient to fund our operations for at least the next 12 months. Our future

capital requirements will depend on many factors, including our rate of revenue growth, the expansion of our sales and marketing activities, the timing and extent of our spending to support our R&D efforts and our ability to expand CDPs in the semiconductor industry, resulting from the adoption of our HPC platform for technology development, and our ability to engage in CDPs with companies in the clean-energy industry. To the extent that existing cash and cash equivalents and cash from operations are insufficient to fund our future activities, we may need to raise additional funds through public or private equity or debt financing. We may also seek to invest in or acquire complementary businesses, applications or technologies, any of which could also require us to seek additional equity or debt financing. Additional funds may not be available on terms favorable to us or at all.

Cash Flows

The following summary of our cash flows for the periods indicated has been derived from our consolidated financial statements included elsewhere in this prospectus:

	Years Ended December 31,			Nine Months Ended September 30,	
	2008	2009	2010	2010	2011
				(unaudited)	
	(in thousands)				
Net cash provided by (used in) operating activities	$ 981	$ 1,088	$ 1,175	$ (6,129)	$ (10,299)
Net cash (used in) provided by investing activities	$ (8,162)	$ (16,708)	$ 924	$ 1,273	$ (9,248)
Net cash provided by (used in) financing activities	$ 21,339	$ (4,426)	$ 109	$ 62	$ 25,244

Cash Flows from Operating Activities

We have experienced positive cash flows from operating activities during each of the years ended December 31, 2010, 2009 and 2008 including the receipt of advance payments from CDPs, product sales and licensing and royalty fees.

Net cash used in operating activities during the nine months ended September 30, 2011 was primarily attributable to our net loss of $4.5 million and non-cash charges of $5.2 million of depreciation and amortization and $1.8 million in stock-based compensation, and $1.6 million related to common and preferred stock warrant charges and the mark-to-market of our derivative liability. The net decline in cash flow from our operating assets and liabilities of $(14.6) million was primarily as a result of a $11.8 million reduction in deferred revenue, $4.7 million in prepaid and other assets, and $3.0 million in accounts receivable, offset by an increase in accrued and other liabilities of $5.4 million.

Net cash provided by operating activities during the year ended December 31, 2010 of $1.2 million reflects the net loss of $1.8 million and non-cash charges of $5.0 million for depreciation and amortization and $1.4 million for stock-based compensation. The net change in our operating assets and liabilities of $(3.4) million was primarily a result of a $0.8 million increase in inventory, a $2.9 million increase in accounts receivable and a $4.5 million decrease in deferred revenue which were partially offset by a $3.3 million increase in accounts payable and accrued expenses.

Net cash provided by operating activities during the year ended December 31, 2009 of $1.1 million reflects the net loss of $5.3 million and non-cash charges of $4.4 million for depreciation and amortization and $1.1 million for stock-based compensation. The net change in our operating assets and liabilities of $0.8 million was primarily the result of a $0.5 million decrease in deferred revenue which was partially offset by $1.6 million in our prepaid expenses and other assets, inventory and accounts receivable balances.

Net cash provided by operating activities during the year ended December 31, 2008 of $1.0 million reflects the net loss of $9.5 million and non-cash charges which consist of $3.4 million for depreciation and amortization and $0.9 million for stock-based compensation. The net change in our operating assets and liabilities of $6.1 million was primarily due to an advance royalty payment in the amount of $10.0 million that will be earned through 2012 that resulted in a net increase in deferred revenue of $9.5 million, which was partially offset by a $3.9 million increase in prepaid expenses and other assets, inventory and accounts receivable balances.

Cash Flows from Investing Activities

Our investing activities consist primarily of purchases and sales of short-term investments, capital expenditures to purchase property and equipment and our investments in intangible assets relating to our patents and trademarks. In the future, we expect we will continue to make significant capital expenditures to support our expanding operations and incur costs to protect our investment in our developed technology and IP.

During the nine months ended September 30, 2011, cash used in investing activities was $9.2 million as a result of $8.0 million in capital expenditures, $0.8 million in the purchase of short-term investments and $0.5 million in capitalized patent and trademark costs.

During the year ended December 31, 2010, cash provided by investing activities of $0.9 million was primarily attributable to the $11.8 million in net proceeds received from the sale of our investments which were partially offset by $10.5 million of capital expenditures and $0.3 million in capitalized intangible asset costs. These capital expenditures were incurred as a result of us relocating our operations during the year ended December 31, 2010 to a new facility to support our expanding operations, as well as to prepare for new business programs requiring additional equipment.

During the year ended December 31, 2009, cash used in investing activities of $16.7 million was due to $11.8 million for the purchase of investments, $4.8 million in capital expenditures relating to the acquisition of lab equipment and machinery and $0.1 million in capitalized intangible asset costs.

During the year ended December 31, 2008, cash used in investing activities of $8.2 million was attributable to $7.6 million in capital expenditures and $0.5 million in capitalized intangible asset costs.

Cash Flows from Financing Activities

To date, we have financed our operations primarily with proceeds from the sale of our redeemable convertible preferred stock.

During the nine months ended September 30, 2011, cash provided by financing activities was $25.2 million, primarily as a result of the receipt of $24.9 million in net proceeds from the sale of our Series E redeemable convertible preferred stock in March and June 2011.

During the year ended December 31, 2010, cash provided by financing activities was $0.1 million which consisted of proceeds received from the exercise of stock options.

During the year ended December 31, 2009, cash used in financing activities was $4.4 million, primarily as a result of us paying off our outstanding loan balances under our amended loan and security agreement.

During the year ended December 31, 2008, cash provided by financing activities was $21.3 million primarily due to the receipt of $19.9 million in net proceeds from the sale of our Series D redeemable convertible preferred stock combined with $3.0 million in proceeds from borrowings under our amended loan and security agreement in May 2008 which were partially offset by principal repayments on our debt obligations of $1.7 million.

Contractual Obligations

The following summarizes our contractual obligations as of December 31, 2010:

	Payments Due by Period					
	2011	2012	2013	2014	2015	Total
	(in thousands)					
Contractual Obligations:						
Operating lease obligations	$ 1,550	$ 1,573	$ 1,657	$ 1,707	$ 728	$ 7,215
Total	$ 1,550	$ 1,573	$ 1,657	$ 1,707	$ 728	$ 7,215

Operating lease agreements represent our obligations to make payments under our non-cancelable lease agreements for our facilities in San Jose, California. During the nine months ended September 30, 2011, we made regular lease payments of $1.1 million under the operating lease agreements.

In connection with the consummation of the Symyx asset purchase transaction, which will occur in connection with the consummation of this offering, in the event Symyx's gross proceeds from this offering are less than $67 million, we will issue a note payable to Symyx with a value equal to the difference between Symyx's gross proceeds and $67 million. At an assumed initial public offering price of $13.00 per share (the midpoint of the price range set forth on the cover page of this prospectus) the gross proceeds from the sale of Symyx's shares would be $51.6 million, and we would have a $15.4 million obligation to Symyx. A $1.00 increase (decrease) in the assumed initial public offering price of $13.00 per share would increase (decrease) the gross proceeds to Symyx by $4.0 million. Such note would have a term of 24 months and an interest rate equal to 4% and would be payable in an amount equal to the greater of $500,000 per quarter or the amount of accrued interest, with a balloon payment at maturity. See "Certain Relationships and Related Party Transactions−Symyx" for further details about this transaction.

Off-Balance Sheet Arrangements

Through September 30, 2011, we did not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

Segment Information

We have one business activity, which is to develop and apply high productivity combinatorial R&D technologies. Although we track revenue earned from customers in the semiconductor and clean-energy industries, we do not currently track and maintain discrete financial information, including operating margins for these industry sectors. As such, we are a single reporting and operating unit structure.

Quantitative and Qualitative Disclosures about Market Risk

We are exposed to market risks in the ordinary course of our business. Market risk represents the risk of loss that may impact our financial position due to adverse changes in financial market prices and rates. Our market risk exposure is primarily a result of fluctuations in interest rates and foreign currency exchange rates. We do not hold or issue financial instruments for trading purposes.

Interest Rate Sensitivity

Our exposure to market risk for changes in interest rates relates primarily to our investment portfolio and our outstanding debt obligations. Our cash, cash equivalents and investment accounts as of September 30, 2011 total $29.5 million, consisting primarily of cash, money market funds and certificates of deposit with maturities of less than one year from the date of purchase. Our primary

exposure to market risk is interest income sensitivity, which is affected by changes in the general level of the interest rates in the United States. However, because of the short-term nature of the instruments in our portfolio, a sudden change in market interest rates would not be expected to have a material impact on our consolidated financial condition or our results of operation.

We have no long-term debt outstanding as of September 30, 2011. However, in the future, to the extent we enter into other long-term debt arrangements, we would be subject to fluctuations in interest rates which could have a material impact on our future financial condition and results of operation.

Foreign Currency Exchange Risk

As we expand internationally, our consolidated results of operations and cash flows will become increasingly subject to fluctuations due to changes in foreign currency exchange rates. Our revenue is denominated in U.S. dollars. Our expenses are generally denominated in the currencies in which our operations are located, which is primarily in the United States, with an insignificant portion of expenses incurred in our wholly-owned subsidiaries in Hong Kong and Japan and our wholly-owned branch in Taiwan in their local currencies. The effect of a hypothetical 10% change in foreign currency exchanges rates applicable to our business would not have a material impact on our consolidated financial statements. To date, we have not entered into any material foreign currency hedging contracts although we may do so in the future.

Critical Accounting Policies and Estimates

Our consolidated financial statements have been prepared in conformity with generally accepted accounting principles in the United States and include our accounts and the accounts of our wholly-owned subsidiaries. The preparation of our consolidated financial statements requires our management to make estimates, assumptions and judgments that affect the reported amounts of assets and liabilities and disclosures for contingent assets and liabilities as of the date of the financial statements, and the reported amounts of revenue and expenses during the applicable periods. Management bases its estimates, assumptions and judgments on historical experience and on various other factors that are believed to be reasonable under the circumstances. Different assumptions and judgments would change the estimates used in the preparation of our consolidated financial statements which, in turn, could change the results from those reported. Our management evaluates its estimates, assumptions and judgments on an ongoing basis.

The critical accounting policies requiring estimates, assumptions and judgments that we believe have the most significant impact on our consolidated financial statements are described below.

Revenue Recognition

We generate revenue from three principal sources: CDPs and other services, which also includes other R&D services and product maintenance and support; product sales; and technology licensing and royalty fees. It is possible for our customers to work with us across multiple areas of our business, and certain of our customer arrangements involve the delivery or performance of multiple products, services or licenses. For example, product sale arrangements include product maintenance and support, and CDPs and other R&D services include licensing of technology and may also include sales of products. When there are multiple elements of deliverables in a contract entered into or modified on or prior to December 31, 2010, we identify all deliverables and allocate revenue among all of the undelivered elements, which might include CDP and other services revenue, product revenue and licensing and royalty revenue, based on objective and reliable evidence of fair value for any such element. In the event that vendor-specific objective evidence does not exist, revenue will be recognized over the term of the agreement and will be allocated among the deliverables based on the relative stated invoice price for the elements. In an arrangement that includes software that is more than incidental to the products or services as a whole, we recognize revenue from the software and software-related elements, as well

as any non-software deliverable(s) for which a software deliverable is essential to its functionality, in accordance with the authoritative guidance on software revenue recognition.

CDP and services revenue. We enter into CDPs with customers under which we conduct R&D activities jointly with the customer. These agreements specify minimum levels of research effort required to be performed by us. Payments received under the agreements are not refundable if the research effort is not successful. Historically, we have not provided any refunds under these arrangements.

We retain rights to certain elements of technology developed during the course of performance, which the customer has an option to license in the future under the terms defined in the agreement. We typically recognize revenue from these arrangements on a time and materials basis. Most arrangements with customers have fixed monthly fees and requirements to provide regular reporting of R&D activities performed. Payments received prior to performance are deferred and recognized as revenue when earned over future performance periods.

Product maintenance and support services revenue is included in CDP and services revenue. These services entitle customers to receive product updates and enhancements or technical support and maintenance, depending on the offering. The related revenue is recognized ratably over the period the services are delivered. We do not have vendor-specific objective evidence of selling price for our product maintenance and support services.

Product revenue. We recognize revenue from the sale of products generally on a straight line basis over the maintenance period once delivery has occurred (title and risk of loss have passed to the customer), and customer acceptance, if required, has been achieved. We have determined that the software included with its equipment products is more than incidental to the product as a whole. We do not have vendor-specific objective evidence of selling price for our products.

Licensing and royalty revenue. We recognize revenue for licenses to IP when earned pursuant to the terms of the agreements. Time-based license revenue is recognized ratably over the license term. License and royalty revenue that becomes triggered by specific customer actions, such as exercise of a license option or by sales volume, is recognized when they occur based on royalty reports or other information received from the licensee, generally one quarter in arrears. Minimum and prepaid royalties and license fees are recognized ratably over the related periods.

In October 2009, the Financial Accounting Standards Board (FASB) issued a new accounting standard which excludes from the scope of software revenue guidance the revenue arrangements which include tangible products that contain software components and non-software components that function together to deliver the tangible product's essential functionality. At the same time, the FASB also issued another accounting standard which changes the requirements for establishing separate units of accounting in a multiple-element arrangement and requires the allocation of arrangement consideration to each deliverable to be based on its relative selling price. The new standards are effective prospectively for revenue arrangements entered into or materially modified in fiscal years beginning on or after June 15, 2010. We adopted the new standards commencing on January 1, 2011 and therefore will apply such standards against all arrangements entered into or modified on or after January 1, 2011. The adoption did not have an impact on our consolidated financial condition, operating revenue, results of operations or cash flows for the nine month period ended September 30, 2011 as there were no multiple-element arrangements that originated during the period. The adoption of this standard may impact future revenue recognition for multiple-element arrangements where product maintenance and support and time-based licenses are the only undelivered elements. The impact of adopting these provisions will result in more product revenue recognized in earlier periods than would otherwise have been the case prior to adoption, as we allocate revenue using the relative selling price method as opposed to recognizing all revenue from the arrangement ratably over the longer of the product maintenance and support term or license period.

Stock-Based Compensation

We recognize compensation costs related to stock options and shares of restricted stock granted to employees based on the estimated fair value of the awards on the date of grant, net of estimated forfeitures. We estimate the grant date fair value, and the resulting stock-based compensation expense, using the Black-Scholes option-pricing model. The grant date fair value of the stock-based awards is generally recognized on a straight-line basis over the requisite service period, which is generally the vesting period of the respective awards.

The fair value of the awards granted during the nine months ended September 30, 2011 and 2010 and the years ended December 31, 2010, 2009 and 2008 was calculated using the Black-Scholes option valuation model with the following weighted-average assumptions:

	Years Ended December 31,			Nine Months Ended September 30,	
	2008	2009	2010	2010	2011
				(unaudited)	
Expected term (in years)	6.0	6.0	6.0	6.0	6.0
Risk-free interest rate	3.3%	2.5%	2.2%	2.7%	2.3%
Expected volatility	55%	55%	55%	55%	57%
Expected dividend rate	0%	0%	0%	0%	0%

The Black-Scholes model requires the use of highly subjective and complex assumptions which determine the fair value of share-based awards, including the expected term and the price volatility of the underlying stock. These assumptions include:

Expected Term. The expected term represents the period that the stock-based awards are expected to be outstanding. For option grants that are considered to be "plain vanilla," we used the simplified method to determine the expected term as provided by the SEC. The simplified method calculates the expected term as the average of the time-to-vesting and the contractual life of the options.

Expected Volatility. The expected volatility is derived from historical volatilities of several unrelated, publicly listed peer companies over a period approximately equal to the expected term of the award because we have limited information on the volatility of our common stock since we have no trading history. When making the selections of our industry peer companies to be used in the volatility calculation, we considered the size, operational and economic similarities to our principal business operations.

Expected Dividend Rate. The expected dividend rate was assumed to be zero as we have never paid dividends and have no current plans to do so.

Risk-Free Interest Rate. The risk-free interest rate is based on the U.S. Treasury yield in effect at the time of grant for zero coupon U.S. Treasury notes with maturities approximately equal to the expected term of the awards.

In addition to the assumptions used in the Black-Scholes option-pricing model, we must also estimate a forfeiture rate to calculate the stock-based compensation for our awards. Our forfeiture rate is based on an analysis of our actual forfeitures. We will continue to evaluate the appropriateness of the forfeiture rate based on actual forfeiture experience, analysis of employee turnover and other factors. Quarterly changes in the estimated forfeiture rate can have a significant impact on our stock-based compensation expense as the cumulative effect of adjusting the rate is recognized in the period the forfeiture estimate is changed. If a revised forfeiture rate is higher than the previously estimated forfeiture rate, an adjustment is made that will result in a decrease to the stock-based compensation expense recognized in the financial statements. If a revised forfeiture rate is lower than the previously

estimated forfeiture rate, an adjustment is made that will result in an increase to the stock-based compensation expense recognized in the financial statements.

We will continue to use judgment in evaluating the expected volatility, expected terms and forfeiture rates utilized for our stock-based compensation calculations on a prospective basis. As we continue to accumulate additional data related to our common stock and stock option exercises, we may have refinements to the estimates of our expected volatility, expected terms and forfeiture rates, which could materially impact our future stock-based compensation expense.

We are also required to estimate the fair value of the common stock underlying our stock-based awards when performing the fair value calculations with the Black-Scholes option-pricing model. The fair value of the common stock underlying our stock-based awards was estimated on each grant date by our board of directors, with input from management. Our board of directors is comprised of a majority of non-employee directors with significant experience in the semiconductor industry. We believe that our board of directors has the relevant experience and expertise to determine a fair value of our common stock on each respective grant date. Given the absence of a public trading market of our common stock, and in accordance with the American Institute of Certified Public Accountants Practice Guide, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation*, our board of directors exercised reasonable judgment and considered numerous objective and subjective factors to determine the best estimate of the fair value of our common stock including:

- contemporaneous valuations performed by unrelated third party specialists;
- prices for our convertible preferred stock sold to outside investors in arm's-length transactions;
- the rights, preferences and privileges of our convertible preferred stock relative to those of our common stock;
- actual operating and financial performance;
- the likelihood of achieving a liquidity event, such as an initial public offering or a sale of our company given prevailing market conditions and the nature and history of our business;
- illiquidity of stock-based awards involving securities in a private company;
- industry information such as market size and growth; and
- macroeconomic conditions.

In valuing our common stock, the board of directors considered contemporaneous valuations, which determined the equity value of our business by taking a weighted combination of the value indications under two valuation approaches, an income approach and a market approach. The income approach estimates the present value of future estimated cash flows, based upon forecasted revenue and costs. These future cash flows are discounted to their present values using a discount rate which is derived from an analysis of the cost of capital of comparable publicly traded companies in the same industry or similar lines of business as of each valuation date and is adjusted to reflect the risks inherent in the projected cash flows. The market approach estimates the fair value of a company by applying market multiples of comparable publicly traded companies in the same industry or similar lines of business which are based on key metrics implied by the enterprise values or acquisition values of the comparable publicly traded companies.

The results of the income approach and the market approach were then weighted evenly to determine the fair value of our business. This fair value was then allocated to each of our classes of stock using the Probability Weighted Expected Return Method (PWERM).

The PWERM involves a forward-looking analysis of the possible future outcomes of the business. This method is particularly useful when discrete future outcomes can be predicted at a high confidence level with a probability distribution. Discrete future outcomes considered under the PWERM included non-initial public offering (IPO) market-based outcomes as well as IPO scenarios. In the non-IPO scenarios, a large portion of the equity value is allocated to the convertible preferred stock to

incorporate higher aggregate liquidation preferences. In the IPO scenarios, the equity value is allocated pro rata among the shares of common stock and each series of convertible preferred stock, which causes the common stock to have a higher relative value per share than under the non-IPO scenario. The fair value of the enterprise determined using the IPO and non-IPO scenarios will be weighted according to the board of directors' estimate of the probability of each scenario. The Black-Scholes option-pricing model incorporates various subjective assumptions, including expected volatility, expected term, and the risk-free interest rates, as well as the fair value of the common stock on the grant date as determined by management. These input factors are subjective and are determined using management's judgment. If a difference arises between the assumptions used in determining stock-based compensation expense and the actual factors that become known over time, we may change the input factors used in determining future stock-based compensation expense. Any such changes could materially impact our results of operations in the period in which the changes are made and in periods thereafter.

Information regarding stock option grants to our employees since January 1, 2010 is summarized as follows:

Grant Date	Number of Options Granted	Exercise Price	Fair Value Per Share of Common Stock	Intrinsic Value Per Share
February 4, 2010	993,125	$ 2.66	$ 2.66	–
March 2, 2010	26,000	2.66	2.66	–
May 4, 2010	33,750	2.66	2.66	–
June 25, 2010	21,750	2.66	2.66	–
August 19, 2010	297,000	2.66	2.66	–
December 14, 2010	208,250	3.40	3.40	–
March 31, 2011	618,250	6.20	6.20	–
April 27, 2011	130,500	6.20	6.20	–
May 20, 2011	141,000	6.20	6.20	–
June 6, 2011	331,249	6.20	6.72*	$ 0.52
June 24, 2011	29,000	6.20	8.30*	2.10
August 25, 2011	144,000	11.96	11.96	–

* We reassessed the fair value of our common stock subsequent to the grant date of these options. The intrinsic value per share represents the difference between the exercise price, which was the original fair value determination made by our board on the date of option grant, and the assessed fair value applied retrospectively for accounting purposes.

Other than as discussed in the section entitled "Grants Made between June 6, 2011 and August 25, 2011," no single event caused the valuation of our common stock to increase or decrease through September 30, 2011. Instead, a combination of the factors described below in each period led to the changes in the fair value of the underlying common stock.

Grants Made between February 4, 2010 and August 19, 2010

On February 4, 2010, the board determined the fair value of the common stock to be between $2.60 and $2.70 per share based on a number of factors, including its review of a contemporaneous valuation analysis conducted as of December 31, 2009. This contemporaneous valuation was prepared on a minority, non-marketable interest basis assuming we were in the Expansion stage of our development. The contemporaneous valuation weighted the income approach and market approach equally to determine the fair value of our business.

The weightings assigned to each scenario in the PWERM analysis contained in the contemporaneous valuation analysis as of December 31, 2009 were as follows:

IPO	25.0 - 30.0%
Strategic Merger or Sale	25.0 - 30.0%
Remain Private Company	45.0 - 37.5%
Liquidation	5.0 - 2.5%

The IPO, Sale and Remaining Private scenarios were discounted to present value using a discount rate of 30% and a holding period between two and four years. The liquidation scenario assumes the business was dissolved and, therefore, no value was assigned to this scenario.

During the period between the February 2010 and August 2010 valuations, we granted 993,125 options on February 4, 2010, 26,000 options on March 2, 2010, 33,750 options on May 4, 2010, 21,750 options on June 25, 2010 and 297,000 options on August 19, 2010. All of the options granted during this period were assigned an exercise price of $2.66 per share, which the board determined to be the fair value based on many factors, including its review of the contemporaneous valuation conducted as of December 31, 2009, which valued the common stock at a range of fair values of $2.60 to $2.70 per share, and based on its determination that there were no events in the period between the date of each of the option grants and the date of the contemporaneous valuation that would result in a change to the fair value of the underlying common stock.

Grants Made on December 14, 2010

On December 14, 2010, the board determined a fair value of the common stock to be between $3.30 and $3.50 per share based on a number of factors, including its review of a contemporaneous valuation analysis conducted as of October 31, 2010. This contemporaneous valuation was prepared on a minority, non-marketable interest basis assuming we were in the Expansion stage of our development. The contemporaneous valuation weighted the income approach and market approach equally to determine the fair value of our business.

The weightings assigned to each scenario in the PWERM analysis contained in the contemporaneous valuation analysis as of October 31, 2010 were as follows:

IPO	30.0 - 35.0%
Strategic Merger or Sale	30.0 - 35.0%
Remain Private Company	35.0 - 27.5%
Liquidation	5.0 - 2.5%

The IPO, Sale and Remaining Private scenarios were discounted to present value using a discount rate of 28% and a holding period between two and three years. The liquidation scenario assumes the business was dissolved and, therefore, no value was assigned to this scenario.

We granted 208,250 options on December 14, 2010 with an exercise price of $3.40, which the board determined to be the fair value based on many factors, including its review of the contemporaneous valuation conducted as of October 31, 2010, which valued the common stock at a range of fair values of $3.30 to $3.50 per share, and based on its determination that there were no events in the period between the date of the option grant and the date of the contemporaneous valuation that would result in a change to the fair value of the underlying common stock.

No single event caused the valuation of the common stock to increase from August 2010 to December 2010; rather it was a combination of factors. This increase in value reflects a number of milestones attained between valuation dates related to new CDPs entered into during the period or the extension of existing CDPs. The increase is also consistent with the stock price movement associated with the guideline companies as well as various market indices from December 31, 2009 to October 31, 2010.

Grants Made between March 31, 2011 and May 20, 2011

On March 31, 2011, the board determined a fair value of the common stock to be between $6.00 and $6.40 per share based on a number of factors, including its review of a contemporaneous valuation analysis conducted as of March 4, 2011. This contemporaneous valuation was prepared on a minority, non-marketable interest basis assuming we were in the Expansion stage of our development. The contemporaneous valuation weighted the income approach and market approach equally to determine the fair value of our business.

The weightings assigned to each scenario in the PWERM analysis contained in the contemporaneous valuation as of March 4, 2011 were as follows:

IPO	50.0 - 55.0%
Strategic Merger or Sale	25.0 - 30.0%
Remain Private Company	22.5 - 15.0%
Liquidation	2.5 - 0.0%

The IPO, Sale and Remaining Private scenarios were discounted to present value using a discount rate of 40% and an 18-month holding period. The liquidation scenario assumes the business was dissolved and, therefore, no value was assigned to this scenario. The discount rate is derived from an analysis of the cost of capital of comparable publicly-traded companies in the same industry or similar lines of business and is adjusted to reflect the risks inherent in the projected cash flows. The increase in the discount rate from the October 2010 valuation to the March 2011 valuation reflects the increased risk of achieving our updated projected financial results which, in the March 2011 valuation, assumed a much greater success rate for certain developed technology to move into customer manufacturing on existing and prospective projects, thereby, increasing the projected financial results and the related risk of achieving the higher results. Accordingly, the discount rate was increased to reflect these increased risks.

We granted 889,750 options between March 31, 2011 and May 20, 2011 with an exercise price of $6.20 per share, which the board determined to be the fair value based on many factors, including its review of the contemporaneous valuation conducted as of March 4, 2011, which valued the common stock at a range of fair values of $6.00 to $6.40 per share, and based on its determination that there were no events in the period between the date of the contemporaneous valuation and May 20, 2011 that would result in a change to the fair value of the underlying common stock on each grant date.

Similar to the change in fair value between the August 2010 and December 2010 valuations, no single event caused the valuation of the common stock to increase during the period from March 31, 2011 through May 20, 2011; rather it was a combination of factors. This increase in value reflects the much higher growth and profit potential of our business. In addition, our board substantially increased the probability of an IPO exit from 30-35% to 50-55%, which assumes a conversion of the preferred stock and minimizes the value of the preferred stock liquidation preferences, and thus, increases the common stock value and its relative value to the preferred stock. The IPO probability was increased given higher revenue forecast and greater visibility of future earnings. As of the date of this valuation, and continuing through May 20, 2011, we had not yet had any formal meetings with potential underwriters about an IPO but were beginning to have preliminary and other informal discussions on the matter.

The value increase also reflects the newly extended CDPs, the raising of the Series E preferred stock financing in March 2011 in which we raised $15.0 million through the sale of 3,610,873 preferred shares for $4.15412 per share, as well as our boards' optimism with respect to the royalty element with each customer engagement. As a result, our board increased its projected net cash flows, revenue and operating profits during the later years of our projections. In addition, the revenue multiples used in the market approach were increased from 3.5x to 4.0x. The increase in value is also consistent with the

stock price movement associated with the guideline companies as well as various market indices from October 31, 2010 to March 4, 2011.

Grants Made between June 6, 2011 and August 25, 2011

On June 6, 2011 and June 24, 2011, we granted 331,249 and 29,000 options, respectively, with an exercise price of $6.20 per share, and on August 25, 2011, we granted 144,000 options with an exercise price of $11.96 per share. All options granted by our board were intended to be exercisable at the fair value of our stock at the time of grant, based on information known at that time.

On August 25, 2011, our board determined a fair value of our common stock to be between $11.80 and $12.10 per share based on a number of factors, including its review of a contemporaneous valuation analysis conducted as of August 5, 2011. This contemporaneous valuation was prepared on a minority, non-marketable interest basis assuming we were in the Expansion stage of our development. The contemporaneous valuation weighted the income approach and market approach equally to determine the fair value of our business.

The weightings assigned to each scenario in the PWERM analysis contained in the contemporaneous valuation as of August 5, 2011 were as follows:

IPO	70.0 - 75.0%
Strategic Merger or Sale	10.0 - 15.0%
Remain Private Company	20.0 - 10.0%
Liquidation	0.0 - 0.0%

The IPO, Sale and Remaining Private scenarios were discounted to present value using a discount rate of 18% and a 9-month holding period. The liquidation scenario assumes the business was dissolved and, therefore, no value was assigned to this scenario. The increase in probability weighting for an IPO is related to the filing of our registration statement on July 29, 2011, increasing the likelihood of the IPO outcome and increasing the corresponding value of a Strategic Merger or Sale as the value ascribed to a Strategic Merger or Sale scenario assumes a premium over the estimated IPO value. The discount rate is derived from an analysis of the cost of capital of comparable publicly-traded companies in the same industry or similar lines of business and is adjusted to reflect the risks inherent in the projected cash flows. The decrease in the discount rate from the March 2011 valuation is related to a reduction in the risk of our achieving our estimated future cash flows primarily as a result of our entering into a multi-year CDP with a key strategic customer on June 1, 2011. This multi-year CDP on June 1, 2011 increased backlog as of June 30, 2011 by approximately 90%.

For the purposes of recording stock-based compensation expense as part of our quarterly financial close process, we reassessed the fair value of our common stock for the option grants that were made on June 6, 2011 and June 24, 2011. We considered the results and underlying assumptions included in the valuation of the common stock as determined by our board on August 25, 2011 that have been summarized above. This assessment led us to conclude that the fair value of our common stock for financial reporting purposes increased on a straight-line basis from May 31, 2011 through the effective date of the valuation. The May 31, 2011 date was selected because it was the last date preceding the date of a multi-year CDP agreement, which was the first material event to occur following the prior valuation date. Following May 31, 2011, additional events leading to an increased likelihood of an IPO outcome occurred that were considered in the August 5, 2011 contemporaneous valuation, including the organizational meeting for the IPO on June 20, 2011, entering into the agreement with Symyx Technologies on July 28, 2011 and the initial filing of our registration statement on July 29, 2011. As a result, we reassessed the fair value of our common stock as of June 6, 2011 and June 24, 2011 as $6.72 and $8.30, respectively.

Our board substantially increased the probability of an IPO exit from 50-55% to 70-75%, which assumes a conversion of the preferred stock and minimizes the value of the preferred stock liquidation

preferences, and thus, increases the common stock value and its relative value to the preferred stock. The IPO probability was increased given our IPO organizational meeting that was held on June 20, 2011 and the filing of our registration statement that occurred on July 29, 2011.

The value increase reflects the newly signed CDP with a strategic customer and the second closing of our Series E preferred stock financing in June 2011 in which we raised $10.0 million through the sale of 2,407,249 preferred shares for $4.15412 per share.

As of September 30, 2011 we had $5.2 million of unrecognized stock-based compensation expense, net of estimated forfeitures, that is expected to be recognized over a weighted average period of 3.1 years. In future periods, our stock-based compensation expense is expected to increase as a result of our existing unrecognized stock-based compensation to be recognized as these awards vest and as we issue additional stock-based awards to attract and retain employees.

The intrinsic value of all outstanding options as of September 30, 2011 was $78.4 million based on the estimated fair value for our common stock of $11.96 per share.

Recent Accounting Pronouncements

In January 2010, the FASB issued an amendment to an accounting standard which requires new disclosures for fair value measurements and provides clarification for existing fair value disclosure requirements. The amendment will require an entity to disclose separately the amounts of significant transfers in and out of Levels I and II fair value measurements and to describe the reasons for the transfers; and to disclose information about purchases, sales, issuances and settlements separately in the reconciliation for fair value measurements using significant unobservable inputs, or Level III inputs. This amendment clarifies existing disclosure requirements for the level of disaggregation used for classes of assets and liabilities measured at fair value and requires disclosures about the valuation techniques and inputs used to measure fair value for both recurring and nonrecurring fair value measurements using Level II and Level III inputs. This guidance is effective for interim and annual reporting periods beginning after December 15, 2009, except for certain Level III activity disclosure requirements that will be effective for reporting periods beginning after December 15, 2010. Accordingly, we have adopted this amendment as of January 1, 2010, except for the additional Level III requirements which we will adopt during the year ending December 31, 2011.

BUSINESS

Overview

We have pioneered a proprietary approach to accelerate research and development, innovation and time-to-market for the semiconductor and clean-energy industries. Through paid collaborative development programs (CDPs) with our customers, we develop proprietary technology and intellectual property (IP) for our customers focused on advanced materials, processes, integration and device architectures. This technology enables our customers to bring optimized, high-volume manufacturing-ready integrated devices to market faster and with less risk than traditional approaches to research and development (R&D). We provide our customers with proprietary technology through various fee arrangements and grant them rights to associated IP, primarily through royalty-bearing licenses. Our proprietary approach is broadly applicable to high-volume integrated device markets, which include the markets for semiconductors, flat glass, solar cells, light-emitting diodes (LEDs), flat-panel displays, advanced batteries and other energy-efficient technologies.

Our approach consists of our proprietary high productivity combinatorial (HPC) platform, coupled with our multi-disciplinary team. Our HPC platform consists of our Tempus HPC processing tools, automated characterization and informatics and analysis software. Our platform is purpose-built for R&D using combinatorial process systems. Combinatorial processing is a methodology for discovery and development that employs parallel and other high-throughput experimentation, which allows R&D experimentation to be performed at speeds up to 100 times faster than traditional methods. Our processing tools allow us to perform up to 192 experiments on a single substrate as compared to traditional methods, which typically allow only a single experiment at a time. Our automated characterization systems and proprietary informatics and analytics match the high throughput of our processing tools. Our multi-disciplinary team of approximately 140 scientists and engineers, of whom approximately 55 have Ph.D.s, designs customized workflows for our customers' specific applications using the HPC platform and applies the workflows in collaboration with our customers. The combination of the HPC platform and our team generates significant competitive advantages for our customers. By accelerating innovation and enabling our customers to commercialize higher-performance and lower-cost integrated devices faster than through traditional methods of R&D, we provide them an opportunity to gain market share and generate higher margins, often through a first-mover advantage.

Our business model aligns our interests with those of our customers as we collaborate to develop differentiated proprietary technology and IP for high-volume integrated devices through collaborative development programs. Customers pay us development services fees during multi-year CDPs, which typically last for two years and may range from one to three years. Our customers receive rights to the technology and IP developed during the CDPs, and once our customers commercialize products using this technology and IP, they pay us primarily through royalties. In certain cases, we sell HPC processing tools to our customers who pay a recurring license to operate those tools with our combinatorial processing capabilities. By aligning our interests with those of our customers, we facilitate collaboration and open communication that is more likely to result in innovative, differentiated products and future CDPs with those customers.

We currently target large, high-volume semiconductor and high-growth emerging clean-energy markets, including DRAM, flash memory, complex logic, flat glass, solar cells, LEDs and other energy-efficient technologies. According to IHS iSuppli, the semiconductor market had $304 billion in sales in 2010 and is expected to grow at a compound annual growth rate (CAGR) of 5.7% from 2010 to 2015. Based on data from Freedonia Group, GlobalData, IHS iSuppli and MarketsandMarkets, the clean-energy markets had $166 billion in sales in 2010 and are collectively expected to grow at a CAGR of 10.8% from 2010 to 2015. Within these broad markets, we target customers that have track records of technological innovation, deploy significant resources and are pursuing technical advancements that are critical to their success and strategy. We have engaged in paid programs with 19 customers. Our largest

customers are ATMI, Elpida Memory, GLOBALFOUNDRIES, Guardian Industries, SanDisk, Taiwan Semiconductor Manufacturing Company (TSMC) and Toshiba, which collectively recorded $46 billion in revenue in 2010 associated with the semiconductor and clean-energy markets. Each of ATMI, Elpida, SanDisk, Toshiba and GLOBALFOUNDRIES accounted for 10% or more of our revenue for the nine months ended September 30, 2011, and each of ATMI and Elpida accounted for 10% or more of our revenue for the year ended December 31, 2010. ATMI and Elpida have commenced shipping products incorporating technology developed through our CDPs and pay us licensing and royalty fees. To date, we have received the majority of our revenue from customers in DRAM, flash memory, complex logic and energy-efficient applications in flat glass, and have not yet received a material amount of revenue from customers in solar cells, LEDs and other energy-efficient technologies.

We were founded in 2004 and are headquartered in San Jose, California. Our total revenue increased to $42.7 million for the year ended December 31, 2010 from $26.9 million for the year ended December 31, 2009. Our total revenue increased to $38.7 million for the nine months ended September 30, 2011 from $28.5 million for the nine months ended September 30, 2010. Our backlog as of September 30, 2011 was $94.5 million, of which $14.0 million is scheduled to be recognized as revenue during the remainder of the year ending December 31, 2011, and $44.6 million is scheduled to be recognized as revenue during 2012, with the remainder to be recognized in future periods beyond 2012. Our adjusted EBITDA for the nine months ended September 30, 2011 was $4.2 million, and our adjusted EBITDA for the year ended December 31, 2010 was $4.6 million. Our net loss decreased to $1.8 million for the year ended December 31, 2010 from $5.3 million for the year ended December 31, 2009. Our net loss increased to $4.5 million for the nine months ended September 30, 2011 from $2.9 million for the nine months ended September 30, 2010. Since inception, we have incurred net losses leading to an accumulated deficit of $75.0 million as of September 30, 2011.

Industry Background

High-volume integrated devices serve large and growing markets, including the markets for semiconductors, flat glass, solar cells, LEDs, flat-panel displays, advanced batteries and other energy-efficient technologies. Success in these markets requires rapid and cost-effective product innovation, fast time-to-market, competitive pricing, production scalability and the ability to achieve specific requirements. These devices are typically manufactured using thin-film deposition of advanced materials through customized processes that create a specific device architecture. It is increasingly necessary to evaluate elements in the periodic table that have previously not been used in high-volume manufacturing to deliver performance and cost improvements, and to develop advanced device structures capable of addressing particular application requirements. These device structures must then be scaled and integrated into cost-effective manufacturing processes to serve high-volume integrated device markets. Traditional R&D approaches are increasingly challenged by the market need to accelerate innovation and time-to-market for the semiconductor and clean-energy industries.

Semiconductor Industry

Since the inception of the semiconductor industry more than 50 years ago, innovation has been continually driven by consumer demands for smaller, higher-performance, more power-efficient and less expensive electronic products. Recently, this innovation has been driven by broad end-market demand for smartphones, PCs, tablet computers, cloud computing, high-definition media, and advanced aerospace and industrial applications. The semiconductor industry is characterized by intense competition, with many semiconductor companies seeking to gain market advantage over competitors by expanding their broad product portfolios, using their deep design and/or process capabilities and leveraging their IP libraries. Increasingly, these companies are relying on combinations of advanced materials, processes, integration and device architectures to compete and differentiate their products.

Historically, the pace of semiconductor innovation has been enabled by device scaling, in which, according to Moore's Law, the number of transistors in a design generally doubles every two years. This increasing density has reduced costs and improved capabilities over time, thereby driving market demand and growth. However, semiconductors are approaching the limitations of device scaling with the current set of materials and manufacturing processes. Consequently, semiconductor manufacturers are turning to advanced materials, processes, integration and new device architectures to enable continued device scaling and to deliver improved product performance and cost competitiveness. The reliance on advanced materials, processes, integration and new device architectures has in turn made advancements in semiconductor technology increasingly complex and expensive. Each new process node requires experimentation with more elements in the periodic table and more material combinations to deliver the desired physical and electrical characteristics for device performance and manufacturability. For example, the broad adoption of copper interconnects enabled the industry to continue device scaling in the microprocessor field, but as this advancement required changes not only in materials, but also in processes, integration and device architectures to achieve high-volume, cost-effective manufacturing, the transition was challenging and slow.

Semiconductor manufacturing companies have used device scaling to shrink transistors and develop new process technology nodes to address customer requirements for lower cost and higher performance ICs. However, advanced R&D and new fabrication facility costs have increased significantly over time, especially as the use of advanced materials and processes have become increasingly important to the development and introduction of the latest generation process technology nodes. According to data compiled by a leading manufacturer in the semiconductor industry and presented at a 2009 industry conference, the industry average for logic process R&D has reached between $600 million and $900 million for nodes between 45nm and 32nm. This represents more than an 80% increase from 65nm and older nodes, and expectations are for process R&D to reach $1.3 billion for 22nm and 12nm nodes, an additional 70% increase in process R&D costs. In addition, according to IC Knowledge, costs of semiconductor fabrication facilities have increased from approximately $50 million in 1975 to the approximately $3.5 billion required to open a new 32nm facility currently, with the expectation that costs for a leading edge facility will reach $8 billion by 2015. The greater expertise and higher costs required to explore advanced materials, processes, integration and new device architectures have led to increased specialization among materials, capital equipment, semiconductor manufacturing and IC design companies. However, this specialization has left gaps in the industry knowledge base with respect to the complexities of the interaction between materials science, process technology, device integration and the scale-up to high-volume IC production.

To succeed in the market and deliver an appropriate financial return, semiconductor companies are under intense pressure to rapidly develop optimized ICs and efficiently scale them to cost-effective production. Using advanced semiconductor materials, processes, integration and new device architectures requires intensive, time-consuming experimentation because advanced materials are not well understood and accurate, robust models do not exist. As a result, semiconductor companies must increasingly rely on time and resource-intensive, empirical R&D to develop innovative solutions and enable manufacturability at lower costs.

Clean-Energy Industry

The emerging clean-energy markets also depend on improvements in advanced materials, processes, integration and new device architectures. Clean-energy markets, which include the markets for flat glass, solar, LEDs, advanced batteries and other energy-efficient technologies, remain in early stages of technological evolution. Companies in the fast-evolving clean-energy markets are in the early stages of understanding materials, processes, integration, device architectures and manufacturing methodologies. As a result, those companies that successfully develop relevant, scalable proprietary

materials and device technologies will likely have a competitive advantage over their peers in both time-to-market and price.

Decreasing prices, government policies and social awareness are driving growth in the clean-energy markets and certain sectors have entered high-volume production. Reduced prices and improved performance relative to traditional alternatives generally catalyze widespread adoption of new technologies. For example, LEDs are currently more expensive to purchase than incandescent and fluorescent lighting. To increase penetration of the general lighting market, price reductions and improvements in performance, such as brightness, color, form factor and features like dimming, will be critical. New advanced materials, improved process technologies and new device architectures will enable larger wafer sizes, higher-volume production and improved yields for lower-cost and higher-performing LEDs.

Because of the early stages of technology development in the clean-energy markets, there are significant opportunities for cost savings and potential competitive advantage. Market participants who resolve the price-performance challenges ahead of their competitors through advanced materials, processes, integration and new device architectures may greatly accelerate market adoption and establish themselves as market leaders. These opportunities amplify the importance of empirical R&D to develop low-cost, high-performance solutions in these early-stage markets.

Current Challenges with Innovation in High-Volume Integrated Device Markets

Advanced materials and device integration are driving forces behind technology advancement in the high-volume integrated device markets. In addition, innovation in these markets and control of the resulting IP are critical to enable competitive differentiation. However, the existing approach used to explore new materials, processes, integration and device architectures is complex, time-consuming and requires empirical R&D. For example, Intel, an industry leader, has stated at technology conferences that while the Tri-Gate advanced transistor technology was invented in 2002, it was not optimized for high-volume manufacturing until 2011.

Traditionally, device manufacturers have conducted R&D using expensive high-volume manufacturing tools that are not specifically built for that purpose. Production tools typically can only run one process at a time, which leads to limited cycles of learning. Furthermore, using tools deployed in a production environment for R&D requires reserving tool time on high-volume manufacturing lines to evaluate each experiment, resulting in substantial opportunity costs for existing product manufacturing. High-volume manufacturing environments are also not conducive to R&D because these environments require stability to minimize risk and to reduce contamination that the research-based introduction of new materials, tools or processes may cause. Additionally, high-volume manufacturing is conducted by operators focused on repetitive, mistake-free processing, not on many cycles of trial and error. In addition to some of the challenges above, certain clean-energy device manufacturers use laboratory-scale tools for R&D, which do not address the scale-up requirements critical to high-volume manufacturing. These factors combine to increase development risks due to long learning cycles, limited data sets, narrow exploration capabilities and slow time-to-market.

Successful R&D programs require flexibility around experimentation and the introduction of new materials, chemicals, processes and tools to derive the most efficient high-volume integrated device solutions. Furthermore, we believe they are best administered by scientists and engineers with experience across various disciplines of equipment, materials, device architectures and processes to conduct successful experiments and derive optimized solutions.

The following existing approaches have been used to complement internal R&D, but each has specific limitations:

Equipment suppliers. Equipment suppliers provide solutions that are not tailored to specific customer applications. Additionally, they provide high-volume manufacturing solutions that are not purpose-built for researching the interaction of advanced materials, processes, integration and device architectures.

Industry consortia. Industry consortia provide solutions that offer no competitive differentiation because the customer must share the IP with all consortium participants, including competitors.

Alliance partnerships. Alliance partnerships impose limitations on the overall outcome, as they are typically structured to find generic solutions rather than the solutions for a particular application. Additionally, these generic solutions are offered to a small set of competitors and are not customer-specific or application-specific.

University research. University research provides theoretical solutions requiring additional work and time to commercialize, since this work typically does not address manufacturing or commercialization challenges.

Third-party IP licensing. Third-party IP licensing is primarily used for defensive purposes or market access. Those who cross-license IP do not receive a solution that is specific to the customer, manufacturing process or application, and the received solution is not differentiated from what their competitors receive through the same license.

Substantially improved methodologies are required to generate the learning cycles necessary to accelerate innovation, improve product development and ensure manufacturing scalability of high-volume integrated devices. Further, companies require new ways to develop proprietary technology and obtain IP rights to support competitive advantage for their new products.

Our Solution

We have pioneered a proprietary approach to accelerate research and development, innovation and time-to-market for the semiconductor and clean-energy industries. Using our approach, we develop technology and IP rights focused on advanced materials, processes, integration and device architectures in collaboration with our customers. This technology enables our customers to bring optimized, high-volume manufacturing-ready integrated devices to market faster and with less risk than traditional approaches to R&D. Our proprietary HPC platform consists of our Tempus HPC processing tools, automated characterization and informatics and analysis software. Our HPC platform increases R&D productivity because it is purpose-built for R&D and utilizes advanced combinatorial processing systems, which allow for experiments to be performed at speeds up to 100 times faster than traditional methods. We provide our customers with proprietary technology through various fee arrangements and grant them rights to IP developed during the collaboration, primarily through royalty-bearing licenses. Our multi-disciplinary team of approximately 140 scientists and engineers, of whom approximately 55 have Ph.D.s, designs customized workflows for our customers' specific applications using our HPC platform and applies the workflows in collaboration with our customers to develop proprietary technology for them.

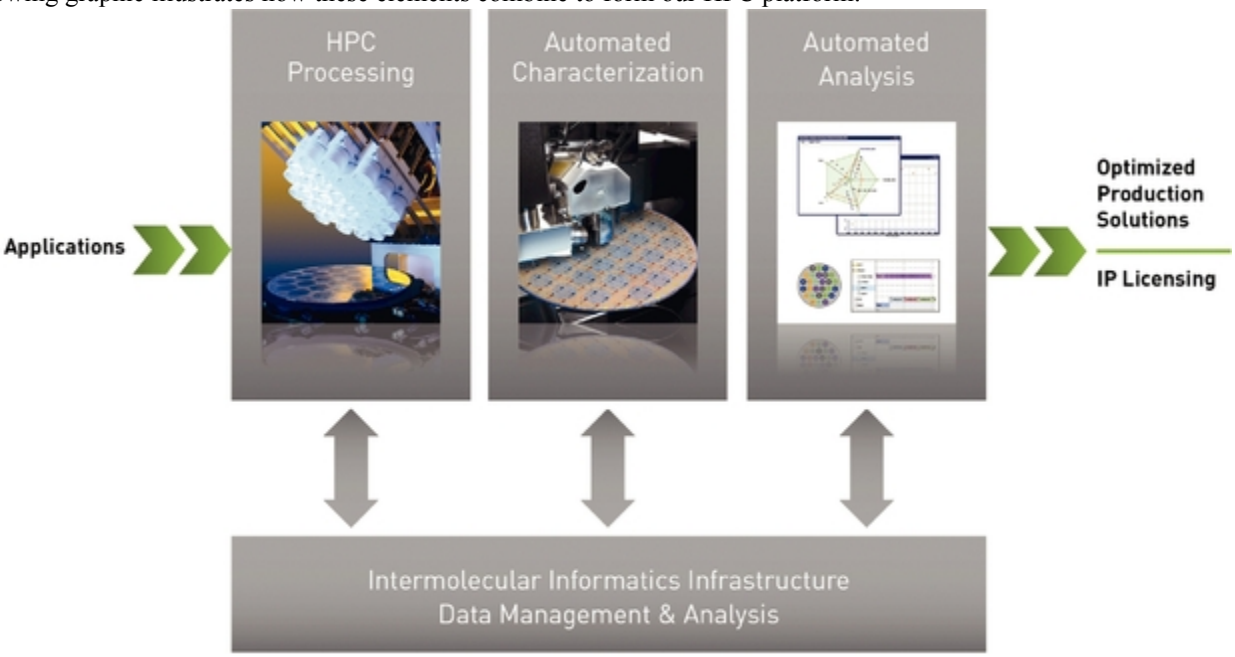
The key elements of our HPC platform include the following:

Tempus HPC processing. We use our Tempus HPC processing tools to rapidly process different experiments consisting of various combinations of materials, processing parameters, sequencing and device structures. We are able to perform up to 192 experiments on a single substrate, as compared to traditional methods, which typically allow only a single experiment at a time.

Automated characterization. We use automated characterization systems to characterize the substrates processed by our Tempus HPC processing tools, thereby rapidly generating experimental data while matching our processing throughput.

Informatics and analysis software. We use our informatics and analysis software to automate experiment generation, characterization, data analysis and reporting, in each case while matching our processing throughput, and to create an aggregated and searchable database of information that includes the experimental results we generate.

The following graphic illustrates how these elements combine to form our HPC platform:



Benefits to Our Customers

Our business model aligns our interests with those of our customers as we collaborate to develop optimized, manufacturing-ready IP for high-volume integrated devices. We provide our customers with proprietary technology through various fee arrangements and grant them rights to IP developed during our CDPs, primarily through royalty-bearing licenses. Our differentiated platform solution and approach to collaborative engagements are designed to deliver the following significant benefits to our customers:

Accelerated time-to-market with better, lower-cost products. Faster processing of experiments, throughput-matched characterization and real-time data management and analysis allow additional learning cycles and broader exploration of materials and process solution combinations. In highly competitive markets, the resulting speed to market with improved, lower-cost products enables our customers to gain market share and improve profitability. For example, during our engagement with Elpida to introduce their next generation DRAM, we were able to accelerate time-to-market by reducing experimentation cycle times from weeks to hours, thereby increasing learning cycles for them by 100 times per month. The increased volume of experimental data evaluated during the R&D process enabled a lower-cost and more power-efficient solution to enter high-volume manufacturing in the fourth quarter of 2010.

Development of application and manufacturing-ready IP tailored to our customers' specifications. When we engage in a CDP with our customers, we use our HPC platform and customized workflows to develop IP-protected, proprietary technology that is tailored to our customers'

applications and ready for high-volume manufacturing. We provide our customers rights to the IP for their applications primarily through royalty-bearing licenses.

Increased R&D productivity and reduced technology risk. Using our combinatorial processes, we narrow the potential combinations of advanced materials, processes and device architecture solutions through a series of increasingly rigorous screening stages to guide the selection of solutions that meet device performance requirements and that are cost-efficient and ready for high-volume manufacturing. The combinatorial process of screening and evaluating these solutions and their manufacturability mitigates our customers' technology risk earlier in the development cycle. For example, during our engagement with Guardian to develop anti-reflective glass coatings for solar panels, we were able to customize a workflow that allowed our HPC platform to evaluate a broad range of materials and process conditions to quickly identify combinations resulting in coatings with desired optical and durability characteristics. With our extensive screening process, we were able to develop multiple formulations meeting Guardian's desired performance criteria that Guardian believes will both facilitate their transition to large scale manufacturing and reduce their commercialization risk.

Strengths

We have pioneered, developed and patented a proprietary platform and methodology for accelerating R&D in the semiconductor and clean-energy markets. Our strengths include:

Proprietary and patented HPC platform. Our HPC platform employs proprietary and patented combinatorial methods to parallel process up to 192 experiments on a single substrate as compared to traditional methods, which typically allow only a single experiment at a time. As of October 15, 2011, we owned or had exclusive rights within our field of use to 622 U.S. patents and patent applications (some of which also have foreign counterparts), which provide us with a competitive advantage in the use of combinatorial methods and systems in our target markets.

Flexible technology platform configurable for and extendable to multiple markets. Our HPC platform can be configured for many applications and extended to address the broad set of integrated device markets. Because of the similarities in materials deposition, manufacturing processes and device integration complexities across markets, our platform allows us to create customized workflows and support innovation across multiple markets.

Seasoned engineering team with multi-disciplinary expertise. We have assembled a multi-disciplinary team of approximately 140 scientists and engineers, of whom approximately 55 have Ph.D.s, with expertise across various disciplines, fields and technologies, including engineering, materials science, process development and integration, equipment, device process technologies and device integration.

Collaborative customer engagements leading to IP generation and strategic alignment. Our business model aligns our financial interests with those of our customers, to whom we grant rights to proprietary technology and IP developed during our collaborations. Customers pay us development service and HPC platform subscription fees during multi-year CDPs. As they commercialize products incorporating technology developed through the CDPs, our customers then pay licensing fees and/or royalties, including fixed fees and fees based on percentages of revenue and/or fee per product. In certain cases, we sell HPC processing tools to our customers and receive recurring license fees. This alignment of interests facilitates collaboration and open communication that improves development efficiencies and is more likely to result in innovative, differentiated products, which in turn creates a cycle of success that leads to future CDPs with those customers.

Attractive business model with contracted CDP revenue and recurring high-margin royalties. Our multi-year CDPs generate predictable CDP and services revenue from our customers. Our CDPs also establish the terms upon which we will receive licensing and royalty revenue from the sale of our customers' products that incorporate technology developed through our CDPs. These royalty arrangements create a business model with attractive margins and a high degree of near-term visibility. We expect to generate more revenue through royalty-based licenses as more of our customers commercialize and ramp production of products incorporating technology developed through the CDPs.

Our Strategy

Our mission is to drive our customers' success by transforming R&D and accelerating innovation in markets that derive competitive advantage from the interaction of materials science, processes, integration and device architecture. To accomplish this, we:

Target large, high-volume semiconductor markets. We target large, high-volume semiconductor markets, including DRAM, flash memory and complex logic. Success in these markets requires semiconductor companies to consistently remain at the leading edge of cost and performance, which demands innovation around materials science, processes, integration and device architectures.

Target large, high-growth, emerging clean-energy markets. We target large, high growth, emerging clean-energy markets, including the markets for flat glass, thin film and crystalline solar, LEDs, advanced batteries and other energy-efficient technologies. We believe we can deliver significant improvements in cost, performance and manufacturability in these markets with our HPC platform.

Engage with existing and potential market leaders in our target markets. We enter into CDPs with companies that are well-positioned to lead their markets. We engage with customers that have track records of technological innovation, deploy significant resources and are pursuing advancements that are critical to their success and strategy.

Create proprietary IP with our customers. We develop differentiated, IP-protected technologies with our customers, and we grant them rights to these technologies and IP, primarily through royalty-bearing licenses. We structure our customer engagements so that our business interests align with their market success.

Enhance our HPC platform and multi-disciplinary team. We continue to develop, broaden and protect our processing, characterization, data analysis and workflow capabilities. To enhance our existing platform, we will expand our existing multi-disciplinary team by continuing to recruit personnel with broad skill sets.

Explore and develop new technologies in high-volume integrated devices. We will continue to explore and internally develop new technologies and expertise to serve future customers in our targeted markets, including, in particular, clean energy. We will focus these efforts in markets which are in the early stages of development to speed innovation, capture value and facilitate success for customers.

Our Platform

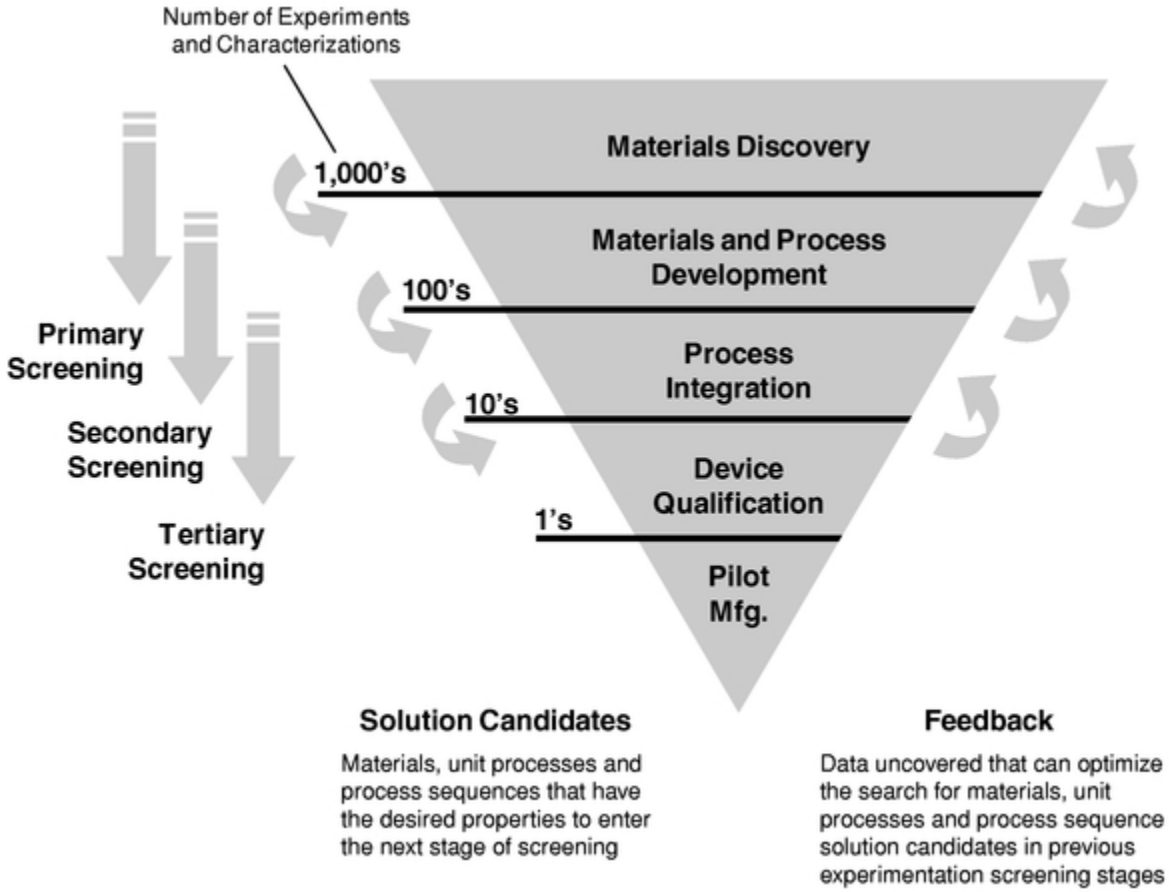
HPC Workflows

We begin the development and discovery process by working with our customers to define the specific requirements a new solution should have to meet the needs of a given application. Generally, these criteria are well beyond the performance attributes of currently available solution sets. We then

apply the components of our HPC platform to develop and discover solution sets that match these criteria.

Once an experiment is processed, the data sets of each experiment are stored in a secure database and analyzed for desired properties. As with processing, our clean room labs include a broad array of characterization and metrology instruments and software to evaluate different properties under a wide variety of process conditions. These properties include physical, electrical, mechanical, thermal, chemical, and optical properties. In general, we are able to design, process and characterize tens to hundreds of experiments in a single day.

To reach the point of commercialization or transfer to our customers' manufacturing process qualification, a solution set must progress through an extensive series of screening stages. Below is an illustration of the screening process of the HPC platform for use in evaluating materials, unit processes, and process sequences.



Primary Screening. Primary screening incorporates and focuses on materials discovery. Materials are screened for certain properties to select possible candidates for a next level of screening. In the initial primary screening there may be thousands of candidates that are subsequently reduced to hundreds of candidates.

Secondary Screening. Solution candidate materials from primary screening are advanced to secondary screening processes that will examine materials and unit process development. In this secondary screening, processes and integration may be additionally considered to narrow the candidates from hundreds of candidates to tens of candidates.

Tertiary Screening. Solution candidate materials and process conditions that continue to meet or exceed the defined criteria through the secondary screening stage are then either transferred to

our customer or processed internally for additional characterization and scale up. These candidates are then characterized on a larger scale, and correlation of the desired process is developed to allow the transfer of the developed technology in a manufacturing scale process.

Manufacturing and Commercialization. Once a candidate has passed this development scale analysis, it is ready for commercialization and the customer will decide whether to commercialize the developed technology.

Secondary screening begins while primary screening is still ongoing, and while we are still generating additional primary screening candidates. Tertiary screening begins once we have identified a reasonable set of options from secondary screening, and while we are still generating additional secondary screening candidates. As these stages overlap, there may be feedback from later stages that is then incorporated back into an earlier stage to further optimize the selection of materials, unit processes and process sequences.

Wet Processing Tools

We offer a series of wet processing tools which apply HPC methods to fluids-based applications such as cleans, deposition and wet etch, self-assembly, and surface treatment processes. These tools, which can be used alone or in combination, include:

Tempus F-10. A stand-alone system used for primary screening through the automatic creation of formulations, especially those involving powders and viscous liquids.

Tempus F-20. A stand-alone system for materials and process screening, which is used for library creation as well as processing of wafer coupons. This product can be used for primary or secondary screening, depending on the reactor block design and the substrate type.

Tempus F-30. A stand-alone system for integration and tertiary scale up screening, which is used to scale up the most promising results from primary and secondary screening to full-size patterned wafers (200 or 300mm).

Dry Processing Tools

In addition, we offer dry processing tools which apply HPC methods to vapor-based applications. Each of these tools can be used in primary, secondary and tertiary screening. These tools, which can be used alone or in combination, include:

Tempus P-30-HPC-Physical Vapor Deposition (PVD). A 300mm chamber with the ability to use up to four PVD sources and three optional deposition methods (including DC, RF and pulse DC) on a vast range of film thicknesses and/or compositions and/or film stacks within each site-isolated region of a substrate.

Tempus A-30-HPC-Atomic Layer Deposition (ALD). A 300mm chamber capable of site isolation of both metal and dielectric films across quadrants of the wafer, with the ability to introduce variation of film thickness and/or composition and/or film stacks within each quadrant.

Tempus AP-30. A configurable platform with multiple A-30 or P-30 chambers and common support modules to facilitate both ALD and PVD for rapid screening of thin-film metal alloys, dielectrics and multilayer stacks. Processes can be scaled to facilitate high-volume manufacturing.

Automated Characterization

Immediately after processing substrates on our Tempus HPC processing tools, we use automated and customized characterization instruments to rapidly generate physical and electrical data from the experiments. The aggregated data is automatically loaded into our informatics data warehouse. As with

processing, our clean room labs include a broad array of characterization and metrology instruments and software to evaluate different properties under a wide variety of process conditions. Our characterization instruments match the throughput of our processing tools to maximize experimental learning cycles.

Informatics Software, Analysis and Services

Our informatics software has the ability to automate the capture, entry and storage of HPC processing and automated characterization and metrology data and then to evaluate, summarize and securely distribute in real time this data to the appropriate parties. Additionally, we use our informatics software to leverage experiments processed and characterized in the past for a customer to increase the speed and effectiveness of the engagement. The key components of our informatics software include:

Workflow management software. Manages the design and process of experiments, metrology and collection of data and summarizes aggregated data to the various working teams in the form of status reports; provides our customers with real-time access to results of our experiments and analysis;

Analysis and reporting software. Provides data and analysis tools to evaluate process distributions, correlate electrical distributions, map defectivity distributions, perform spectral analysis and facilitate interactive creation of summary reporting;

Security and collaboration management software. Provides secure communication between geographically dispersed working teams, ensures the security of created documentation and presentations, manages the minutes for meetings, provides programs and project plans to coordinate working teams, shares summary reports across the working team and provides reviews of finished processes and status of ongoing processes; and

Integration services. Facilitate collaboration between our tools and the customer's process and metrology tools, automate the recipe loading, automate data collection and leverage software to customize reports.

Our Technology

Embedded throughout our hardware and software, our technology is based upon the parallel and/or rapid serial experimentation capabilities of combinatorial methods. High-productivity combinatorial methods generally refer to techniques that vary materials, unit processes, process, and device integration sequences across multiple regions of one or more substrates, the output of which can then be evaluated in parallel. Our informatics software and analytical methods characterize and analyze these combinations of materials, unit processes, process, and device integration sequences for the most promising solutions in a structured, automated and throughput-matched fashion. The relationship between materials, processes, integration and device output are established earlier in the development process, so that performance and manufacturability considerations are taken into account from the outset, instead of late in the R&D process.

Although our approach is unique in the semiconductor and clean-energy industries, combinatorial technology has been widely used in other industries, especially where new materials function as primary enablers of product innovation. Examples include the pharmaceutical, biotechnology, and energy sectors, where combinatorial techniques have been accelerating development since the early 1990s.

We are able to deploy and benefit from our proprietary combinatorial methods because of our multi-disciplinary team of approximately 140 scientists and engineers, of whom approximately 55 have

Ph.D.s. Our team has expertise in a wide range of disciplines, fields and technologies, including the following:

Disciplines	Applications	Equipment (Hardware & Process)	Devices (Processes and Integration)
Chemistry	Equipment development	Deposition	Process, equipment, integration
Physics	Systems engineering	ALD	DRAM / Non-Volatile
Materials science	Semiconductor tools	PVD	Memory
Engineering	Flat panel display tools	PECVD	Microprocessors
Chemical	Software	CVD (metals/dielectrics)	Solar cells (CIGS, thin
Electrical	Design, qualification,	ECD / electroless	film Si, cSi)
Mechanical	manufacturing	CBD / curtain coating	Low e glass coatings
Software	Modeling / TCAD	Wet processing	LED
Controls	Development / integration	Laser annealing	Process technologies
Systems	Yield management	Defect detection	Selenization / absorber
	Statistical methods	Optical, e-beam, laser	formation
	Test structures	High-speed voltage	Shallow trench isolation
	Inspection, review &	contrast	gapfill
	characterization		High-k / metal gate
	Electrical test		Contact & advanced
			silicide
			Advanced Cu–
			interconnect (Cu, Al)
			Advanced packaging

Our Collaborative Development Programs

Our CDPs allow our customers to collaborate with our multi-disciplinary team on specific technical problems. We establish processes and procedures to protect our customers' confidential information during these CDPs. Our CDP work is primarily carried out at our facility in close collaboration with our customers. In addition, we support device qualification for pilot manufacturing at our customers' manufacturing and development sites. Customer teams and our teams collaborate on development of new materials, unit processes, process modules and integration sequences, and qualify the supply chain for high-volume manufacturing. Our multi-disciplinary team can rapidly adapt our Tempus HPC platform to meet customer application requirements and develop and optimize device and product technologies to ensure success with customer programs.

We typically initiate new customer engagements with smaller, customer-paid programs called micro-CDPs. Our micro-CDPs precede the full CDP. These are smaller programs that require significantly less investment from our team but allow us to demonstrate the capabilities of our HPC platform to a customer without requiring a customer to commit to a multi-year agreement. We use these micro-CDPs to demonstrate the capabilities and value of our HPC platform to these new customers, with the objective of engaging with these customers in a full CDP.

Our CDPs are designed to result in the development of proprietary technology and IP for new devices, manufacturing process technology and materials, which we license to our customers for use in volume production. We provide our customers with proprietary technology through various fee arrangements and grant them rights to associated IP primarily through royalty-bearing licenses.

In the early stages of developing our business, we structured engagements with customers to allow us to continue to grow while also giving customers an opportunity to invest in our business and success. We do not expect to continue to provide our customers and partners with opportunities to invest in our company after the consummation of this offering independent of their ability to do so in the open market.

Our Customers

Our customers include semiconductor device, semiconductor materials and equipment and clean-energy market leaders, including ATMI, Elpida, GLOBALFOUNDRIES, Guardian, SanDisk, Toshiba and TSMC. Typically, our customers engage in CDPs with our team leveraging our HPC platform to develop and commercialize high-volume integrated devices using collaboratively developed technology. To date, ATMI and Elpida have already successfully developed products through their CDPs and we have granted them rights to the associated technology and IP rights through royalty-bearing licenses. Successes in our initial CDPs have led to expanded relationships and follow-on programs with existing customers for new products and applications.

One example of a customer who has successfully developed and commercialized products through a CDP and expanded upon initial CDPs through follow-on programs is Elpida. We initially began working with Elpida through a micro-CDP in November 2007, resulting in a full CDP in May 2008. In this resulting CDP, we were able to accelerate time-to-market by reducing experimentation cycle times from weeks to hours, thereby increasing learning cycles for them by over 100 times per month. The increased volume of experimental data evaluated during the collaboration enabled the development of a lower-cost and more power-efficient solution through innovations in materials, processes and integration. As a result of our engagement success, Elpida subsequently engaged us in follow-on programs for new products. Elpida incorporated technology developed through this CDP in their next generation DRAM products which entered high-volume manufacturing in the fourth quarter of 2010.

The majority of our revenue comes from ATMI and Elpida, which represented a combined 49%, 72%, 88% and 81% of our total revenue for the nine months ended September 30, 2011 and the fiscal years ended December 31, 2010, 2009 and 2008, respectively. We believe that the revenue concentration associated with these two customers will likely continue to decline as our other customers begin to transition technology developed through CDPs into licensing and royalty revenue and as we continue to enter into new CDPs with new and existing customers in the semiconductor and clean-energy markets.

Intellectual Property

Our success depends in large part on our IP. We have patented and continue to seek patent protection for combinatorial methods and systems included in our HPC platform. We have also patented and continue to seek patent protection of innovations that result from applying our HPC platform to design, develop and manufacture ICs, photovoltaic cells, glass coatings, LEDs, organic light-emitting diodes (OLEDs) and thin films for electronics, optical and energy applications (Fields). As of October 15, 2011, we owned 238 U.S. patents and patent applications (some of which also have foreign counterparts), of which 110 are related to the HPC platform and 128 are related to innovations in the Fields. We also have a license to approximately 384 U.S. patents and patent applications granted to us by Symyx Technologies, Inc. (Symyx), a wholly-owned subsidiary of Accelrys, Inc., that exclusively provides us the right to use combinatorial methods and systems in the Fields.

As of October 15, 2011, we owned 12 patents and 98 patent applications related to our HPC platform in the United States, and two patents and 41 patent applications in other jurisdictions. The expiration dates of these patent rights range from May 2025 to October 2031. We continue to file patent applications to seek protection for further advancements of our HPC platform. We own all rights to such patents and generally do not grant licenses to third parties under these patents other than in connection with the use of our HPC platform. Our patents and patent applications cover the following aspects of the HPC platform:

Combinatorial systems and methods related to fluids-based processing;

Combinatorial systems and methods related to vacuum-based processes, including deposition and etch;

Systems and methods for site-isolated processing;

Combinatorial systems and methods related to high-volume manufacturing; and

Processing techniques using combinatorial and non-combinatorial methods.

In addition to the patents we own, we have rights to approximately 384 U.S. patents and patent applications pursuant to licenses and sublicenses granted to us by Symyx to use combinatorial methods and to make, use and sell combinatorial systems. These rights are exclusive to us in the Fields. The expiration dates of the rights arising from the 384 U.S. patents and patent applications that exclusively provide us the right to use combinatorial methods and systems in the fields of ICs, photovoltaic cells, glass coatings, LEDs, organic light emitting diodes (OLEDs) and thin films for electronics, optical and energy applications range from October 2014 to November 2028. On July 28, 2011, we entered an asset purchase agreement with Symyx, pursuant to which Symyx will transfer to us all the patents for combinatorial methods and systems owned by them, effective upon the consummation of this offering. See "Certain Relationships and Related Party Transactions−Symyx" for further details about this transaction.

We also have and seek patent protection for innovations developed using our HPC Platform (applications IP). Such innovations cover advancements in new materials, processes, process conditions, process sequences and device architectures in applications such as semiconductor memory, semiconductor complex logic, glass coatings, solar cells and LEDs. As of October 15, 2011, we owned 22 patents and 106 patent applications in the U.S. covering applications IP, as well as one patent and 29 patent applications in other countries. We may develop applications IP either on our own or in collaboration with our customers through CDPs.

In most cases, we maintain an ownership interest in the applications IP that results from CDPs and we grant licenses under this applications IP to the CDP customer. Such licenses generally allow the CDP customer to have exclusivity for a limited term in a particular field. We keep the right to grant licenses under the CDP patents outside that field. Furthermore, if the CDP customer elects to not extend the term of exclusivity beyond the limited term, we have the right to grant licenses to third parties within the field. If required we assign separate teams for each CDP, maintain separate databases of experimental data and limit access to such databases only to the specific team that assists the CDP customer.

We may also develop applications IP internally where we believe such IP may have broad applicability in the relevant market. We are able to leverage this IP to begin CDPs with new customers. In addition, our ability to own the applications IP in these situations allows us to leverage learning and patent protection across industries and applications while providing our existing customers with the IP rights they desire to gain competitive advantage in their fields for the markets they serve.

Sales and Marketing

We sell and market our solutions worldwide through our own sales force by developing direct relationships with our customers. We have sales personnel located in Japan, Taiwan, Europe and the United States, including account managers, who are responsible for specific customer accounts, and product marketing personnel, who provide business development support and application and workflow platform expertise. We often base customer support personnel at or near the offices of our major customers to improve our level of service and expand our sales.

Our business development and product marketing group focuses on our strategy, platform and technology roadmap, new platform introduction process, demand assessment and competitive analysis. The group coordinates new application evaluation and development both internally with our

engineering teams and externally with new and existing customers. We intend to increase our sales and marketing efforts and further expand our business development and product marketing organization.

Manufacturing

We manufacture our HPC tools through partnerships with experienced contract manufacturers that manufacture and assemble sub assemblies incorporating our designs. We believe that our third party manufacturers have adequate sources and supplies of the raw materials needed to manufacture our products. We believe that partnering with contract manufacturers provides us with access to the most current facilities and processes without significant capital outlay on our part, allowing us to focus our resources on R&D, product design and collaboration program support. Although we have historically relied on a small number of contract manufacturers for the manufacture and assembly of a majority of our workflow platforms, we have relationships with a variety of contract manufacturers and are not dependent on any single contract manufacturer.

Research and Development

We conduct R&D activities for CDPs and for internal research and development on both workflow platform development and application R&D. As of September 30, 2011, we employed a research and development team of 171 full-time employees. This R&D team includes many experienced semiconductor engineers with advanced degrees from leading universities around the world and managers with experience from leading chip manufacturers, solar PV companies and equipment suppliers. We believe these R&D professionals on our team have enabled us to develop our HPC platform, support customer CDPs, implement our technology roadmap rapidly and provide us with the foundation for our technology advancement in the future.

Our customer-sponsored R&D expenses included in cost of revenue were $9.1 million in 2008, $8.8 million in 2009 and $16.9 million in 2010, which represented approximately 39%, 33% and 40%, respectively, of our revenue in those years.

We devote a substantial portion of our resources to engineering next generation platforms by integrating future generations of technology and developing a standardized software and informatics platform. We work closely with multiple vendors during the development of new workflows or workflow modifications for use in our future platforms. We work with our software and component vendors to establish integration standards. To that end, we are developing scalable software architectures that will allow us to integrate new processes requested by our customers to further expand the opportunities with new and existing customers, accelerate time-to-market, and allow our workflow platforms to operate with adjacent vertical technologies such as clean-energy markets. Our internal R&D expenses were $11.8 million, $11.0 million and $13.9 million for the fiscal years ended December 31, 2008, 2009 and 2010, respectively, which represented approximately 51%, 41% and 33%, respectively, of our revenue in those years.

Competition

The principal capabilities required to be competitive in our market include technical expertise, processes and integration capabilities, diversity of platform offerings, development speed and performance, quality and reliability of field engineers, depth of collaboration with customers and technical support. We believe we compete favorably with respect to these factors because of the breadth of capabilities of our HPC platform, the depth of multi-disciplinary expertise of our internal research team and external engineering teams who collaborate with customers and our use of combinatorial processing and throughput matched characterization and analysis. These differentiating factors allow us to explore more comprehensive solution sets and provide faster solutions to our customers. We are not aware of any companies that currently compete or have to date competed with us in the use of combinatorial methods in research and development applications; however, we do

believe that we compete for the R&D resources of our customers with equipment suppliers, industry consortia, alliance partnership, university research and third-party IP licensing. In addition, many of our customers design, develop, manufacture and market solutions based on their own unique device architectures and develop their own intellectual property in-house.

A portion of our revenue is generated from the sales of end products by our customers, and our competitive position therefore is dependent on their competitive positions. The markets for our customers' products that incorporate technology developed through our CDPs are intensely competitive and characterized by rapid technological change. These changes result in frequent product introductions, short product development cycles and increased product capabilities typically representing significant price and performance improvements.

Environmental Regulation

We are subject to various foreign, federal, state and local environmental laws and regulations governing, among other matters, emissions and discharges of hazardous materials into the air and water, the use, generation, storage, handling, transportation and disposal of, and exposure to, hazardous materials and wastes, remediation of contamination and employee health and safety. In addition, under certain of these environmental laws, liability can be joint and several and without regard to comparative fault. Our operations involve the use of hazardous materials and produce hazardous waste, and we could become liable for any injury or contamination that could arise due to such use or disposal of these materials. Failure to comply with environmental laws and regulations or to obtain or maintain required environmental permits could result in the imposition of substantial civil and criminal fines and sanctions, could require operational changes or limits or the installation of costly equipment or otherwise lead to third party claims. Future environmental laws and regulations, stricter enforcement of existing laws and regulations, or the discovery of previously unknown contamination or violations of such laws and regulations could require us to incur costs, or become the basis for new or increased liabilities or subject us to fines or other sanctions.

Employees

As of September 30, 2011, we had a total of 204 full-time employees, consisting of 171 people engaged in CDPs and R&D activities and 33 people in sales and marketing, legal and general and administrative roles. None of our employees are represented by a labor union, and we consider our employee relations to be good.

Our CDPs are labor-intensive, and as we engage in additional CDPs, we will need to hire enough highly-skilled engineers and other technical staff to support the CDPs. We evaluate our hiring needs on a project by project basis, taking into account current and anticipated CDP timelines and lifecycles. We believe our location in San Jose, California provides us with access to a large population of highly-skilled engineers who will be able to meet the technical requirements of our new CDPs.

Facilities

Our facilities currently consist of an aggregate of approximately 146,000 square feet of office, research and development clean room space in San Jose, California, pursuant to a lease that expires in 2015. For our CDP engagements, as of September 30, 2011 we are using approximately 52% of the capacity of our clean room space in San Jose. We have historically expanded and invested in our facilities to support the growth of our CDPs and we expect to be able to continue to do so on commercially reasonable terms as we engage in new CDPs in the future. We have no reason to believe that additional space that we may need in the future will not be available on commercially reasonable terms.

Legal Proceedings

We are not currently a party to any material pending legal proceedings.

CUSTOMER AND COLLABORATIVE AGREEMENTS

The descriptions below contain only a summary of the material terms of the agreements and do not purport to be complete. These descriptions are qualified in their entirety by reference to the respective agreements that are filed as exhibits to the registration statement of which this prospectus is a part.

Collaborative Development Program Agreement with GLOBALFOUNDRIES (GF)

In June 2011, we entered into a CDP agreement with GF to develop and improve certain semiconductor products.

Under the agreement, we will provide development services to GF and grant GF non-exclusive use of our proprietary HPC platform (which includes a subscription to the platform and a license to the associated software) for the purpose of developing and improving certain semiconductor products.

Each party will own the rights arising out of the CDP created by its inventors ("GF CDP IP"). We agreed that we would not grant a license under our rights in the GF CDP IP to any third party outside a certain field without the prior written consent of GF.

GF has agreed to pay us (i) royalties on sales of products that incorporate the GF CDP IP, (ii) fees for providing development services to GF, (iii) subscription and license fees for use of the HPC platform, and (iv) certain pre-approved expenses and material costs. GF may grant sublicenses to use the GF CDP IP to third parties, but must share with us the royalties it receives from certain third party sublicenses. We also granted GF an option to purchase certain HPC processing tools.

We are required to supply a certain number of full-time employees or contractors dedicated to supporting the development activities under the CDP.

The initial period for development activities and use of the HPC platform is three years, and will automatically renew for additional one-year periods unless either party elects to terminate. The initial term of the agreement is five years from the date of the last sale of a product that incorporates GF CDP IP.

Collaborative Development Program Agreement with Toshiba and SanDisk

In March 2010, we entered into a CDP agreement with Toshiba and SanDisk to develop certain memory technologies and related materials.

Under the agreement, we will provide development services to Toshiba and SanDisk and grant Toshiba and SanDisk non-exclusive use of our proprietary HPC platform (which includes a subscription to the platform and a license to the associated software).

Toshiba and SanDisk will own the rights to the technology and IP arising out of the CDP that is based on Toshiba or SanDisk background technology or that is solely developed by Toshiba or SanDisk. We will own the rights to the technology and IP arising out of the CDP that is solely developed by us and that is based on our background technology. Jointly developed technology and IP arising out of the CDP that is based on our background technology will be jointly owned. Patent rights based on technology solely developed by us that is based on Toshiba or SanDisk background technology will be jointly owned.

We granted Toshiba and SanDisk an exclusive license under our rights in the technology and IP arising out of the CDP (Toshiba-SanDisk CDP IP) during the term of the CDP. After the conclusion of the CDP term, Toshiba and SanDisk each shall have the option (i) to continue to maintain an exclusive license to certain or all of the Toshiba-SanDisk CDP IP, (ii) to convert the exclusive license to non-exclusive, or (iii) to terminate the exclusive license.

Toshiba and SanDisk have agreed to pay us (i) volume-based royalties on sales of products that incorporate the Toshiba-SanDisk CDP IP subject to certain minimum and maximum levels, (ii) fees for providing development services to Toshiba and SanDisk, (iii) subscription and license fees for use of the HPC platform, and (iv) certain pre-approved expenses and material costs. Toshiba or SanDisk may request that we grant to other third parties a royalty-bearing license to the Toshiba-SanDisk CDP IP.

The initial period for the development activities is two years, and may be extended for up to two additional one-year periods. The obligations of Toshiba and SanDisk to pay royalties under the licenses granted by us shall continue for the duration of such licenses.

Advanced Memory Development Program Agreement with Elpida Memory, Inc. (Elpida)

In May 2008, we entered into an Advanced Memory Development Program Agreement with Elpida relating to a CDP to develop and improve certain advanced memory products. The Elpida agreement was supplemented and/or amended in August 2008, January 2009, May 2009 and July 2010.

Under the agreement, we will provide development services to Elpida and grant Elpida non-exclusive use of our proprietary HPC platform (which includes a subscription to the platform and a license to the associated software) for the purpose of developing and improving certain advanced memory products.

We own the rights for certain technology and IP arising out of the CDP (our CDP IP). Elpida owns the rights for certain other technology and IP arising out of the CDP (Elpida CDP IP). All other technology and IP arising out of the CDP will be jointly owned by Elpida and us (joint CDP IP). We have also granted Elpida an exclusive license to use our CDP IP and the joint CDP IP in certain fields during the term of the agreement.

Elpida has agreed to pay us (i) royalties on sales of products that incorporate our technology, our CDP IP, Elpida CDP IP or joint CDP IP subject to certain minimum and maximum levels; (ii) fees for providing development services to Elpida, (iii) subscription and license fees for use of the HPC platform, and (iv) certain pre-approved expenses and material costs.

The current period for development activities and use of the HPC platform is through April 1, 2013, after which the exclusive license converts to a non-exclusive license unless Elpida meets certain minimum quarterly sales thresholds from high-volume manufacturing of royalty-bearing products. Elpida's obligation to pay royalties under the licenses granted by us shall continue for the duration of such licenses.

ATMI Engagement

In November 2006, we entered into an alliance agreement with ATMI to develop advanced materials for semiconductor products under one or more individual CDPs as agreed between the parties from time to time. Each CDP would provide payments from ATMI to us (i) for providing development services to ATMI, (ii) for subscription and license fees for use of the HPC platform, and (iii) for certain pre-approved expenses and material costs. ATMI owns any technology and IP that it independently creates during the alliance agreement. We own the technology and IP we independently create. Unless modified by the terms of a CDP, we also own the Alliance Technology arising out of the CDP and the HPC technology. The initial term of the alliance activities is ten years.

The parties have had one CDP under the alliance agreement. Under that CDP, ATMI owns any technology and IP that it independently creates during the alliance agreement, as well as any materials manufacturing technology and associated IP rights that are created during the course of the alliance agreement (the Alliance Materials Manufacturing Technology). We own the technology and IP we independently create and, other than the Alliance Materials Manufacturing Technology, any other technology and IP that is created during the course of the alliance agreement (the Alliance IP). We

granted to ATMI a limited, field-restricted, exclusive license to use the Alliance IP, with the right to sublicense, and ATMI has agreed to pay us royalties or share revenues on the sales or licenses of ATMI products that incorporate the Alliance IP. We retained the right to be the sole licensor of any Alliance IP to any IC manufacturers or original equipment manufacturers.

In July 2007, we entered into a Wets Workflow Purchase Agreement with ATMI, which was extended through amendments in December 2007, December 2008, March 2009, August 2010 and March 2011 (as amended, the ATMI Wets Workflow Agreement), pursuant to which we agreed to sell to ATMI certain HPC processing tools and license informatics software related to liquid or fluids-based materials (wets) used in semiconductor processing and manufacturing (collectively, the wets workflow). The wets workflow may only be used at certain designated sites and solely for the purpose of developing and commercializing materials, wets processing processes, products and materials manufacturing technologies in a certain field. ATMI is obligated to pay us royalties on products that incorporate any material identified, first synthesized, or discovered through use of any wets workflow (the ATMI products). During the term of the agreement, we have agreed not to enter into any joint marketing, sales or development agreements in certain fields with certain competitors of ATMI. During the term of the agreement and subject to economic terms, we also agreed not to ship certain elements of the wets workflow and certain other proprietary HPC processing tools to certain ATMI competitors for use in certain defined fields. We have agreed to evaluate ATMI materials for CDPs between us and integrated device manufacturers for an IC or solar application. We have agreed to recommend ATMI materials to our customers in these CDPs, provided that the ATMI materials are timely available, meet our customer's requirements and are cost competitive. If we identify an opportunity for ATMI and us to work in a joint development program or if ATMI introduces us to such an opportunity with an integrated device manufacturer, we and ATMI will enter into good faith negotiations to agree on an economic arrangement, unless ATMI does not have HPC-related resources available to contribute to such an opportunity. We are required to supply a certain number of full-time employees or contractors dedicated to supporting ATMI's use of the wets workflow. The agreement will continue in effect as long as any license granted under any applicable purchase order under the agreement remains in effect, which will be at least through December 31, 2013.

In December 2008, we entered into a Dry Workflow Purchase Agreement with ATMI, which was extended thru amendments in August 2010 and March 2011 (as amended, the ATMI Dry Workflow Agreement), pursuant to which we agreed to sell to ATMI certain HPC processing tools and license informatics software related to vapor-based applications (dry) used in semiconductor processing and manufacturing (collectively, the dry workflow). For sales of compounds or materials (or composition of compounds or materials) identified, first synthesized, or discovered in whole or in part through the use of the dry workflow, and any derivative thereof (the ATMI dry products), ATMI would pay us a royalty on these ATMI dry products. We are required to supply a certain number of full-time employees or contractors dedicated to supporting ATMI's use of the dry workflow. The agreement will continue in effect as long as any license granted under any applicable purchase order under the agreement remains in effect, which will be at least through December 31, 2013.

Symyx Agreements and Asset Purchase

In March 2005, we entered into a Collaborative Development and License Agreement with Symyx Technologies, Inc. (Symyx). In addition, in December 2005, we entered into an Alliance Agreement (Symyx Alliance Agreement) with Symyx, and we amended the Symyx Alliance Agreement in August 2006, June 2007, August 2007, November 2007 and September 2009.

Under the Symyx agreements, Symyx granted us a license to certain high-throughput combinatorial patents held or licensed by them and related software to design, develop and manufacture integrated circuits, photovoltaic cells, glass coatings, light emitting diodes, organic light-emitting diodes and thin films for electronics, optical and energy applications (Fields), and we agreed to pay Symyx royalties in

connection with such license. During the nine months ended September 30, 2011 and 2010 and the years ended December 31, 2010, 2009 and 2008, we recorded $1.5 million, $1.3 million, $2.0 million, $1.2 million and $1.0 million in cost of revenue, respectively, and had accrued liabilities due to Symyx of $552,000, $795,000 and $502,000 as of September 30, 2011 and December 31, 2010 and 2009, respectively. In addition, during the nine months ended September 30, 2011 and 2010 and the years ended December 31, 2010, 2009 and 2008, we purchased $172,000, $0, $6,000, $14,000 and $286,000, respectively, of fixed assets, software licenses, maintenance and consumables from Symyx.

On July 28, 2011, we entered into an agreement with Symyx, pursuant to which we agreed to use commercially reasonable efforts to allow Symyx to sell in this offering 3,968,204 shares of our common stock held by them (on an as-converted basis after giving effect to a 1-for-2 conversion ratio as a result of the 1-for-2 reverse stock split of our common stock). Pursuant to the agreement, Symyx agreed to sell such shares and, upon consummation of this offering, including the sale of such shares, to terminate our future royalty obligations under the Symyx agreements to the extent they would have accrued after December 31, 2011. Additionally, upon consummation of this offering and such sale, Symyx would transfer to us all the patents held by them that relate to combinatorial processing. To the extent the gross proceeds (before deducting underwriting discounts and commissions and offering expenses) to Symyx from the sale of their shares in this offering are less than $67 million, we would issue Symyx a secured promissory note that would have a term of 24 months and an interest rate equal to 4%. Such note would be payable in an amount equal to the greater of $500,000 per quarter or the amount of accrued interest, with a balloon payment at maturity, if applicable. Such note would also be pre-payable by us at any time without penalty or premium, and would be secured by tangible personal property, excluding intellectual property. In addition, we have agreed to reimburse Symyx for 50% of the underwriting discounts and commissions payable by them in connection with this offering, which amount is equal to approximately $1.8 million, based on an assumed initial public offering price of $13.00 (the midpoint of the price range set forth on the cover page of this prospectus). For a more detailed description of the asset purchase, see "Certain Relationships and Related Party Transactions−Symyx."

MANAGEMENT

Executive Officers, Directors and Key Employees

The following table sets forth certain information about our executive officers, key employees and directors, as of October 15, 2011.

Name	Age	Position
Executive Officers		
David E. Lazovsky	39	President, Chief Executive Officer and Director
Peter L. Eidelman	45	Chief Financial Officer
Tony P. Chiang, Ph.D.	41	Chief Technology Officer
John R. Behnke	50	Senior Vice President and General Manager, Semiconductor Group
James Craig Hunter	42	Senior Vice President and General Manager, Clean Energy Group
Sandeep Jaggi, J.D., Ph.D.	48	General Counsel and Senior Vice President of Intellectual Property
Zia Malik	59	Senior Vice President, Global Sales and Marketing
Directors		
Thomas R. Baruch(1)(3)	72	Chairman of the Board
Marvin D. Burkett(2)	69	Director
Irwin B. Federman(1)	76	Director
Isy Goldwasser	41	Director
Bruce M. McWilliams(2)(3)	55	Director
George M. Scalise(2)(3)	77	Director
John L. Walecka(1)	52	Director

(1) Member of the Compensation Committee.

(2) Member of the Audit Committee.

(3) Member of the Nominating and Corporate Governance Committee.

Executive Officers

David E. Lazovsky is our founder and has served as our President and Chief Executive Officer and as a member of our board of directors since September 2004. Mr. Lazovsky brings an in-depth knowledge of semiconductor manufacturing operations and our business and operations to our board of directors. He previously held several senior management positions at Applied Materials Inc. (Applied Materials). From 1996 through August 2004, Mr. Lazovsky held management positions in the Metal Deposition and Thin Films Product Business Group where he was responsible for managing more than $1 billion in Applied Materials' semiconductor manufacturing equipment business. From 2003 until 2004, Mr. Lazovsky managed key strategic accounts in Business Management where he worked closely with leading integrated circuit manufacturers to ensure Applied Materials was developing and providing cutting-edge technology solutions. From 2002 until 2003, Mr. Lazovsky served as the Technology Program Manager for the Endura 2 Platform, Applied Materials' flagship 300mm metallization platform. From 2000 until 2002, Mr. Lazovsky served as Director of Business Management for the European region in the Metal Deposition Product Business Group. Previously, Mr. Lazovsky served as a Business Manager from 1997 to 2000, Account Product Manager from 1996 to 1997 and Total Product Support Engineer from 1995 to 1996. Mr. Lazovsky holds a B.S. in mechanical engineering from Ohio University and, as of October 15, 2011, held 24 pending or issued U.S. patents.

Peter L. Eidelman has served as our Chief Financial Officer since February 2006. Prior to joining Intermolecular, Mr. Eidelman served as Senior Vice President and Chief Financial Officer at Cellon International from October 2002 to February 2006, where he led the company through several financings, acquisitions, restructurings and divestitures. Mr. Eidelman also served as Chief Financial Officer and Treasurer of Sunrise Telecom Inc. from July 1997 to October 2002, which he helped guide through an initial public offering. Earlier in his career he was the manager of tax, accounting and compliance for Amdahl Corporation from 1994 to July 1997 and a manager at the public accounting firm of Coopers & Lybrand (now part of PricewaterhouseCoopers) from 1988 to 1993. Mr. Eidelman holds a B.S. in accounting from the University of Massachusetts at Amherst and studied business and taxation at Bentley College in Waltham, Massachusetts. He also completed an executive management program at the Wharton School, University of Pennsylvania. Mr. Eidelman is a certified public accountant and a member of the American Institute of Certified Public Accountants, Financial Executives International and the Tax Executives Institute.

Tony P. Chiang, Ph.D. has served as our Chief Technology Officer since May 2005 and is responsible for our technology strategy and direction, HPC platform development, core technology and applications development and informatics and operations. Prior to joining Intermolecular, in August 2000, Dr. Chiang founded Angstron Systems Inc. (Angstron), a venture-backed atomic layer deposition start-up company that was acquired by Novellus Systems Inc. (Novellus) in April 2004. Following the acquisition, Dr. Chiang then served as Director of Technology for Novellus until April 2005. From February 1996 until he founded Angstron, Dr. Chiang worked in technology development, product, program and account management roles at Applied Materials, where he led the development, productization and qualification of several generations of enabling thin film deposition technologies used in high-volume manufacturing. Dr. Chiang holds a B.S. in materials science and engineering from Cornell University and a Ph.D. in materials science and engineering from the Massachusetts Institute of Technology. As of October 15, 2011, he held 176 pending or issued U.S. patents spanning advanced materials, process, device and device integration technologies, as well as combinatorial systems and methods.

John R. Behnke has served as our Senior Vice President and General Manager of our Semiconductor Group since July 2011 and had previously served as our Vice President, Worldwide Sales and Marketing since October 2009. Mr. Behnke has more than 27 years of semiconductor industry experience. Most recently he served as Corporate Vice President, Initial Manufacturing Operations & Silicon Technology at Spansion, Inc. (Spansion), with responsibility for all wafer fabrication and its Submicron Development Center. His responsibilities included development of Spansion's proprietary Charge Trapping NOR and NAND process technologies. Mr. Behnke's previous responsibilities at Spansion included product deployment for its Wireless Business Unit. Mr. Behnke worked at Spansion from the time of its initial public offering and spin-off from Advanced Micro Devices, Inc. (AMD)/ Fujitsu in December 2005 until August 2009. Prior to Spansion's spin-off from AMD/Fujitsu, he held various positions in AMD, including as Director of Operations and Technology in its Fab 25 wafer fabrication facility in Austin, Texas from 2000 to 2005, where he was involved in the development of AMD's APC/APM technologies. Prior to Spansion and AMD, Mr. Behnke worked at the Hughes Research Lab in Malibu, California from 1985 to 1992 on the development of InP/GaAs HEMT low noise amplifiers and radiation-hardened SOS. Mr. Behnke holds a B.S. in mechanical engineering with an industrial engineering minor from Marquette University and completed a Clean Energy program at the University of Texas at Austin. As of October 15, 2011, he held five pending or issued U.S. patents.

J. Craig Hunter has served as Senior Vice President and General Manager of our Clean Energy Group since July 2011 and had previously served as Vice President and General Manager of our Clean Energy Technologies Group since January 2009. From June 2008 to December 2008, he was an Entrepreneur in Residence at Sequoia Capital, with a focus on the photovoltaic industry. Mr. Hunter

previously held several management positions at Applied Materials, including the Managing Director of Channel Development from March 2008 to May 2008, the General Manager of their thin-film solar business from 2005 through March 2008, during which time he oversaw the development of that business from conception of the SunFab Thin Film Line to manufacturing the first solar panels, and Senior Manager of product management of the PVD and e-beam inspection tools used in LCD manufacturing from 2003 through 2005. Prior to joining Applied Materials, Mr. Hunter served in a variety of senior management roles, including Chief Financial Officer of Evercare Corporation, a manufacturer of consumer products, from 1999 to 2001, and Director of Mergers and Acquisitions at The Beacon Group in New York from 1997 to 1999. Mr. Hunter holds a B.A. in East Asian Studies from Harvard College and graduated with high distinction from Harvard Business School. As of October 15, 2011, he held five pending or issued U.S. patents.

Sandeep Jaggi, J.D., Ph.D. has served as our General Counsel and Senior Vice President of Intellectual Property since July 2011, and had previously served as our Vice President, Legal Affairs, Licensing and Intellectual Property since July 2010. Prior to joining Intermolecular, he was General Counsel and Senior Vice President of Intellectual Property at Robert Bosch Healthcare Inc. (formerly known as Health Hero Network Inc.) from January 2006 to July 2010. Prior to Robert Bosch Healthcare Inc., he held several senior management positions at LSI Logic, Inc. from August 1995 to January 2006, including Vice President, Chief IP Counsel, Assistant Corporate Secretary and Assistant General Counsel. From October 1989 to August 1995, Dr. Jaggi worked for Lockheed Martin at NASA's Stennis Space Center in Mississippi and NASA's Johnson Space Center in Houston, Texas, where he held several positions including Project Leader, Principal Engineer and Senior Scientist. During his time in Houston, he founded ETS Inc., which commercialized space based-technologies for NASA and the U.S. Navy. He obtained a J.D. with a specialization in intellectual property law from Santa Clara University and also holds a B.Tech. in Electrical Engineering from the Indian Institute of Technology, New Delhi, and an M.S. and Ph.D. in Electrical Engineering from Tulane University. As of October 15, 2011, he held 13 pending or issued U.S. patents and is licensed to practice law in the state of California and before the United States Patent and Trademark Office.

Zia Malik has served as our Senior Vice President, Global Sales and Marketing since May 2011. Prior to joining Intermolecular, he was the founder and Chief Executive Officer of Princely Solar LLC (Princely Solar) from July 2007 to May 2011, and remains a member of Princely Solar's board of directors. Prior to Princely Solar, Mr. Malik held the position of Vice President of Worldwide Sales at PDF Solutions, Inc. from December 2003 to June 2007, where he executed that company's strategy to expand sales into Singapore, Korea and China. Mr. Malik also served as Vice President of Operations at Ishoni Networks from September 2003 to December 2003, and as the Director, Foundry and Contracts Management Group at National Semiconductor Corporation from February 1997 to September 2000. While at National Semiconductor Corporation, Mr. Malik managed the company's diverse contract manufacturing portfolio and was responsible for all technical functions associated with the technology transfer agreements for the company's domestic and international foundries. Mr. Malik obtained a M.S. in Chemistry from the University of Karachi and a master's degree in business administration from the University of Phoenix.

Directors

Thomas R. Baruch has served as a member of our board of directors since November 2004. Mr. Baruch is the founder and a partner emeritus of CMEA Ventures, a venture capital firm that was established in 1989 as an affiliated fund of New Enterprise Associates. Mr. Baruch brings to our board of directors an extensive knowledge of the clean technology industry and experience he has gained working closely with entrepreneurs to build industry-leading companies in the clean-energy industry, as well as years of public company governance experience. Mr. Baruch currently works with various clean technology companies, including serving as a member of the board of directors for FORO Energy, a

company developing a new hybrid thermal mechanical drilling technology for geothermal energy wells, as the Chairman of the board of directors of Cnano Technology Limited, a nanomaterial company that manufactures and develops carbon nanotubes for advanced energy and other applications, and as the Chairman of the board of directors of Wildcat Discovery Technologies, Inc., a company focused on the discovery of advanced materials for clean-energy technology applications. In addition, Mr. Baruch is currently on the board of directors of Codexis, Inc., where he is Chairman and also serves on the audit, compensation and nominating and corporate governance committees of the board of directors, and Entropic Communications, Inc., where he serves on the compensation and nominating and corporate governance committees of the board of directors. Before starting CMEA Ventures, Mr. Baruch was a founder and Chief Executive Officer of Microwave Technology, Inc., a supplier of gallium arsenide integrated circuits. Prior to his employment with Microwave Technology, Inc., Mr. Baruch managed a dedicated venture fund at Exxon Corporation, and was president of the Exxon Materials Division. Earlier in his career, Mr. Baruch worked as a patent attorney and remains a registered patent attorney. He is also both a member of the Executive Committee of the Council of Competitiveness and a member of the Steering Committee of the ESIS Initiative (Energy, Security, Innovation and Sustainability) of the Council of Competitiveness. Mr. Baruch is a member of the board of trustees of Rensselaer Polytechnic Institute, the National Advisory Council on Innovation and Entrepreneurship and the Sierra's Club Climate Recovery Cabinet. Mr. Baruch holds a B.S. in engineering from Rensselaer Polytechnic Institute and a J.D. from Capital University.

Marvin D. Burkett has served as a member of our board of directors since June 2011. A 40-year veteran of the semiconductor industry, Mr. Burkett brings to our board of directors years of experience with global semiconductor and personal computing companies, as well as in-depth knowledge of public company financial and accounting principles. Mr. Burkett served as Senior Advisor to NVIDIA Corporation (NVIDIA) from February 2009 until January 2011. Previously, he began at NVIDIA in August 2002 and served as its Chief Financial Officer from September 2002 to February 2009. Prior to NVIDIA, Mr. Burkett served as the Chief Financial Officer of Arcot Systems, Inc., and also as its Financial Consultant from February 2000 to September 2002. Mr. Burkett also served as an Executive Vice President and Chief Financial Officer of Packard Bell NEC (PBNEC) from 1998 to 1999. Prior to PBNEC, he spent 26 years at AMD from 1972 to 1998, where he served in a variety of positions, including Chief Financial Officer, Senior Vice President, Chief Administrative Officer and Corporate Controller. Mr. Burkett also worked in the Semiconductor Division of Raytheon Company. Mr. Burkett has served as a member of the board of directors for G2 Holdings Corporation since January 2011 and NetLogic Microsystems, Inc. since December 2010, serving as the chair for the audit committee for each company. Mr. Burkett has also served as a member of the board of directors for Entegris, Inc. since May 2010 and Audience, Inc. since September 2010, serving as the chair for the audit committee and a member of the compensation committee for each company. Mr. Burkett holds a master's degree in business administration and a BS degree in applied mathematics and business administration, both from the University of Arizona.

Irwin B. Federman has served as a member of our board of directors since June 2005. Mr. Federman brings to our board of directors an extensive knowledge of the semiconductor industry as well as public company governance experience. Mr. Federman has been a managing member at U.S. Venture Partners, a venture capital firm, since April 1990. Mr. Federman was President and Chief Executive Officer of Monolithic Memories, Inc., a semiconductor company, from 1979 to 1987, where he also served as the Chief Financial Officer from 1970 to 1979. Mr. Federman also serves on the board of directors and as a member of the audit and compensation committees of the board of directors for each of SanDisk Corporation, Check Point Software Technologies Ltd., a security software company, and Mellanox Technologies, Ltd., a semiconductor company. Mr. Federman also serves on the board of directors for various private corporations, including Neoconix, Inc., ON24, Inc., Silego Technology, Inc. and Supply Frame, Inc., as well as charitable trusts, including the San Francisco Ballet, the Brooklyn College Foundation and the San Francisco Museum of Modern Art. Previously,

Mr. Federman served as a director of Centillium Communications, Inc., a developer and supplier of communications integrated circuits, and Nuance Communications, Inc., a speech recognition software company. Mr. Federman holds a B.S. in Economics from Brooklyn College and was awarded an Honorary Doctorate of Engineering from Santa Clara University.

Isy Goldwasser has served as a member of our board of directors since August 2008. Mr. Goldwasser has been an entrepreneur-in-residence at Khosla Ventures since April 2011 and is an investor in the life sciences and energy industries. Mr. Goldwasser has also been an independent consultant providing technical and business advisory services for Accelyrs, Inc. (Accelrys) since April 2011. Mr. Goldwasser brings to our board of directors an in-depth knowledge of and years of investment experience in the life sciences and energy industries. Mr. Goldwasser served as advisor to the Chief Executive Officer of Accelrys from July 2010 to April 2011, following the merger of Symyx Technologies, Inc. (Symyx) and Accelrys. He was the first employee of Symyx at its founding in 1995, and became its President in 1998 and its Chief Executive Officer in June 2007. Mr. Goldwasser also serves on the board of directors of Kalypsys, Inc. and Neurotrek, Inc. Mr. Goldwasser holds a B.S. in chemical engineering from the Massachusetts Institute of Technology and an M.S. degree in chemical engineering from Stanford University.

Bruce M. McWilliams has served as a member of our board of directors since March 2005. Dr. McWilliams brings to our board of directors broad experience in the electronics manufacturing and clean technology sectors as well as extensive management experience. Dr. McWilliams has served as Chief Executive Officer of SuVolta, Inc., a developer of low-power, high-performance integrated circuit technology, since June 2009. Dr. McWilliams also served as a director of Tessera Technologies, Inc. from 1999 to January 2011, where he previously served as its Chief Executive Officer from June 1999 to September 2008 and Chief Strategic Officer from September 2008 to March 2009. Dr. McWilliams also founded and served as Chief Executive Officer of SVision LLC, a silicon chip-based display company, from 1996 to 1999. His management experience also includes serving as Senior Vice President at Flextronics International, or Flextronics, from 1995 to 1996, a position he assumed upon Flextronics' acquisition of nCHIP, Inc., a multi-chip module packaging company that he co-founded and led as Chief Executive Officer from 1989 to 1995. He currently serves on the board of directors of REEL Solar, Inc., a solar heating technology company, and NovaTorque, Inc., a magnet motor design company, and is also a trustee of Carnegie Mellon University and a member of its advisory boards for Physics and Human and Computer Interaction. He holds B.S., M.S. and Ph.D. degrees in physics from Carnegie Mellon University.

George M. Scalise has served as a member of our board of directors since December 2004. Mr. Scalise brings to our board of directors extensive knowledge of the semiconductor industry and market analysis. Mr. Scalise served as President of the Semiconductor Industry Association, or SIA, an association of semiconductor manufacturers and suppliers, from June 1997 to December 2010. Mr. Scalise previously worked at Apple Computer, Inc., where he served as Executive Vice President and Chief Administrative Officer from March 1996 to June 1997, and has also held executive management positions at National Semiconductor Corporation, Maxtor Corporation, AMD, Fairchild Semiconductor Corporation and Motorola Semiconductor. Mr. Scalise was Chairman of the Board of the Federal Reserve Bank of San Francisco from May 2003 to December 2005, and also served on President George W. Bush's Council of Advisors on Science and Technology from 2001 to 2008. He currently serves on the boards of directors of ATMI, Inc., MindTree Limited and Cadence Design Systems, Inc. He served on the California Council on Science and Technology and was a member of the Joint High-Level Advisory Panel of the United States-Israel Science and Technology Commission, and chaired the Secretary of Energy Advisory Board at the US Department of Energy. Mr. Scalise holds a B.S. in mechanical engineering from Purdue University.

John L. Walecka has served as a member of our board of directors since January 2005. Mr. Walecka is a founding partner and has served as a general partner of Redpoint Ventures since its

founding in 1999, and brings to our board of directors the extensive experience he has gained working closely with entrepreneurs to build industry-leading companies in emerging cleantech and technology sectors. Prior to founding Redpoint, he was a general partner with Brentwood Venture Capital from 1984 to 1999. Mr. Walecka currently works with Fortinet, Inc., where he serves as a member of the board of directors as well as a member of the audit, compensation and nominating and corporate governance committees. Mr. Walecka also serves as a member of the boards of directors of Avnera Corporation, Envia Systems, Inc., Schooner Information Technology, Inc., Vertical Up-Kicker, Inc., and Datameer Inc. Mr. Walecka also works with software infrastructure and security products for the enterprise market as well as enabling products for the cable, consumer and broadband markets. Mr. Walecka served as director of the Western Association of Venture Capitalists and is currently a director of the Stanford Business School Venture Capital Trust and an advisor to the Stanford Engineering School. Earlier in his career, he worked for Hewlett Packard Corporation and the Stanford University Smart Product Design Laboratory. He holds B.S. and M.S. degrees in engineering from Stanford, and an MBA from Stanford's Graduate School of Business.

Scientific Advisory Board

We maintain a scientific advisory board consisting of members with experience and expertise in the field of molecular engineering electronics who provide us with consulting services. Our scientific advisory board consists of the following members:

Georges Belfort, Ph.D., is the Russell Sage Endowed Professor of Chemical Engineering in the Howard P. Isermann Department of Chemical and Biological Engineering at Rensselaer Polytechnic Institute. Prior to joining Rensselaer, he spent four years on the faculty of the School of Applied Science at Hebrew University in Jerusalem. Dr. Belfort received his B.S. degree in chemical engineering from the University of Cape Town, and his M.S. and Ph.D. in engineering from the University of California, Irvine. He has won several major awards in separation science, and has made important contributions to the field of surface and interfacial science. He was elected to the National Academy of Engineering in 2003.

James R. Engstrom, Ph.D., is currently the BP Amoco/H. Laurance Fuller Professor in the School of Chemical and Biomolecular Engineering at Cornell University. Since 2002 he has also been a member of the Graduate Field of Chemistry and Chemical Biology. Dr. Engstrom is the recipient of numerous awards, including a 1991 NSF Presidential Young Investigator Award, the Lilly Endowment Teaching Fellowship in 1995, and two College of Engineering Teaching Awards. In 2005 he was made a Fellow of the American Vacuum Society. From 1998 to 2001, he worked for Symyx Technologies, Inc., where he was vice president of high-throughput screening and electronic materials. Presently, Dr. Engstrom's research is focused on inorganic-organic interfaces, and organic thin-film electronics. He earned a B.S. in chemical engineering from the University of Minnesota, and a Ph.D. in chemical engineering from the California Institute of Technology.

J.M.J. Fréchet, Ph.D., is currently Vice President for Research at King Abdullah University of Science and Technology, where he has served since June 2010. Previously, Dr. Fréchet served as the Henry Rapoport Endowed Chair in Organic Chemistry at the Department of Chemistry, University of California, Berkeley. He also serves as scientific director for the Molecular Foundry at Lawrence Berkeley National Laboratory. His research, reported in nearly 1,000 scientific publications and patents, focuses mainly on organic and polymer chemistry applied to nanoscience and nanotechnology, with emphasis on the design, synthesis, fundamental understanding and applications of functional macromolecules. Dr. Fréchet is a member of the National Academy of Sciences and the National Academy of Engineering. In addition to a B.S. in chemical engineering from the Institut de Chimie et Physique Industrielles in Lyon, France, he holds M.S. and Ph.D. degrees in chemistry from Syracuse University and the State University of New York, respectively.

Craig J. Hawker, Ph.D., is director of the Materials Research Laboratory and professor of Materials and Chemistry at the University of California, Santa Barbara. Prior to joining the university, he was a research staff member at the IBM Almaden Research Center in San Jose. Dr. Hawker is editor of the Journal of Polymer Science-Polymer Chemistry, and is an honorary Professor of Chemistry at the University of Queensland. He serves on the scientific advisory boards of Relypsa, Inc., and Warwick Effect Polymers Ltd. He is the recipient of numerous awards, most notably election to the Royal Society, the 2010 MacroUK Award for Outstanding Achievement, and the 2008 DSM International Performance Materials Award. Dr. Hawker's research has focused on the interface between organic and polymer chemistry, with emphasis on the design, synthesis and application of well-defined macromolecular structures in biotechnology, microelectronics, and surface science.

Yoshio Nishi, Ph.D., has been professor of electrical engineering at Stanford University since 2002, and serves as director of research at the Center for Integrated Systems and director of Stanford Site at National Nanotechnology Infrastructure Network. With a Ph.D. in electronics engineering from the University of Tokyo, Dr. Nishi has worked at the senior level with Toshiba R&D for VLSI memory technology and Si-SiO2 interface physics, Hewlett-Packard Laboratories ULSI Research Lab, and Texas Instruments, Inc. R&D. He has contributed to more than 250 publications, co-authored or edited 11 books, and has been responsible for over 70 Japan and U.S. patents. A fellow of the Institute of Electrical and Electronics Engineers (IEEE) and a member of the Japan Society of Applied Physics and The Electrochemical Society, he has received numerous awards over the past 15 years.

Ralph G. Nuzzo, Ph.D., a recognized leader in the chemistry of materials, is director of the Frederick Seitz Materials Research Laboratory and the Center for Microanalysis of Materials at the University of Illinois Urbana-Champaign. He also serves as the William H. and Janet Lycan Professor of Chemistry and a Professor of Materials Science and Engineering at the university. Dr. Nuzzo received his B.S. in chemistry from Rutgers University and his Ph.D. in organic chemistry from MIT. After completing his graduate studies, he was a distinguished member of the technical staff in materials research at Bell Laboratories.

J. George Shanthikumar, Ph.D., is Professor of Industrial Engineering and Operations Research at the University of California, Berkeley. He has authored or coauthored more than 250 papers and has coauthored three books, "Stochastic Models of Manufacturing Systems," "Stochastic Orders And Their Applications" and "Stochastic Orders." He is a co-editor of Flexible Services and Manufacturing Journal, and has served on numerous technical journal editorial boards. As a consultant for KLA-Tencor Corp., he worked on joint development projects with semiconductor companies such as AMD, IBM, Intel, LSI Logic, Motorola, Texas Instruments, Toshiba, Fujitsu, TSMC and UMC. He received a B.S. in mechanical engineering from the University of Sri Lanka, and an M.S. and Ph.D. in industrial engineering from the University of Toronto.

Anthony J. Tether, Ph.D., was director of the Defense Advanced Research Projects Agency (DARPA) from 2001 to 2009. Prior to this, Dr. Tether founded The Sequoia Group and served as its Chief Executive Officer and President; he also served as Chief Executive Officer of Dynamics Technology Inc. and in top-level management roles at Science Applications International Corporation and Ford Aerospace Corp. He has also held other positions in the Department of Defense, serving as Director of DARPA's Strategic Technology Office, and as the Director of National Intelligence in the Office of the Secretary of Defense. Dr. Tether has served on Army, Navy and Defense Science Boards, and on the Office of National Drug Control Policy Research and Development Committee. He is a Life Member of IEEE. Dr. Tether received his B.S. in electrical engineering from Rensselaer Polytechnic Institute, and his M.S. and Ph.D. in electrical engineering from Stanford University.

W. Henry Weinberg, Ph.D., is an award-winning scientist and advisor to start-ups and venture firms in the chemical space. He currently serves as general editor of the prestigious review journal Surface Science Reports. Previously, he was Chief Technical Officer at Draths Corporation and Chief

Technology Officer at Symyx. For more than 24 years, he was on the faculty of both the California Institute of Technology and the University of California, Santa Barbara. Dr. Weinberg was also principal investigator in the US-USSR Exchange Program in Chemical Catalysis between 1974 and 1980, and has served on many review panels for industrial, academic and governmental organizations. He holds a B.S. degree in chemical engineering from the University of South Carolina, and a Ph.D. in chemical engineering from the University of California, Berkeley.

Board Composition

In accordance with our amended and restated certificate of incorporation to take effect following the consummation of this offering, our board of directors will be divided into three classes with staggered three-year terms. At each annual meeting of stockholders, the successors to directors whose terms then expire will be elected to serve from the time of election and qualification until the third annual meeting following their election. After the consummation of this offering, our directors will be divided among the three classes as follows:

the Class I directors will be Marvin D. Burkett and John L. Walecka, and their terms will expire at the annual meeting of stockholders to be held in 2012;

the Class II directors will be Irwin B. Federman and David E. Lazovsky, and their terms will expire at the annual meeting of stockholders to be held in 2013; and

the Class III directors will be Thomas R. Baruch, Bruce M. McWilliams and George M. Scalise, and their terms will expire at the annual meeting of stockholders to be held in 2014.

Mr. Goldwasser has tendered his resignation from our board effective immediately prior to the effectiveness of the registration statement related to this offering.

Our amended and restated certificate of incorporation will provide that the authorized number of directors may be changed only by resolution of the board of directors. Any additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the directors. The division of our board of directors into three classes with staggered three-year terms may delay or prevent a change of our management or a change of control at our company.

Voting Arrangements

Pursuant to a voting agreement that we entered into with certain holders of our common stock and certain holders of our redeemable convertible preferred stock:

CMEA Ventures VI, L.P. (or its affiliates) has the right to nominate a director to our board of directors;

Redpoint Ventures II, L.P. (or its affiliates) has the right to nominate a director to our board of directors;

U.S. Venture Partners IX, L.P. (or its affiliates) has the right to nominate a director to our board of directors;

Symyx Technologies, Inc. (or its affiliates) (Symyx) has the right to nominate a director to our board of directors, subject to approval by our board of directors in the event such nominee is not the then-current Chairman, Chief Executive Officer, President or Chief Operating Officer of Symyx;

our then-incumbent Chief Executive Officer has the right to be nominated to serve on our board of directors; and

the holders of a majority of our common stock and the holders of a majority of our redeemable convertible preferred stock, in each case voting as a separate class, have the right to nominate two directors to our board of directors,

and the holders of our common stock and redeemable convertible preferred stock who are parties to the voting agreement are obligated to vote for such nominee. The provisions of this voting agreement will terminate upon the consummation of this offering and there will be no further contractual obligations regarding the election of our directors. Our directors hold office until their successors have been elected and qualified or appointed, or the earlier of their death, resignation or removal.

Director Independence

Upon the consummation of this offering, our common stock will be listed on The NASDAQ Global Select Market. Under the rules of The NASDAQ Stock Market, independent directors must comprise a majority of a listed company's board of directors within a specified period of the consummation of this offering. In addition, the rules of The NASDAQ Stock Market require that, subject to specified exceptions, each member of a listed company's audit, compensation and nominating and governance committees be independent. Audit committee members must also satisfy the independence criteria set forth in Rule 10A-3 under the Securities Exchange Act of 1934, as amended. Under the rules of The NASDAQ Stock Market, a director will only qualify as an "independent director" if, in the opinion of that company's board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director.

To be considered independent for purposes of Rule 10A-3, a member of an audit committee of a listed company may not, other than in his or her capacity as a member of the audit committee, the board of directors, or any other board committee: (1) accept, directly or indirectly, any consulting, advisory, or other compensatory fee from the listed company or any of its subsidiaries; or (2) be an affiliated person of the listed company or any of its subsidiaries.

In October 2011, our board of directors undertook a review of its composition, the composition of its committees and the independence of each director. Based upon information requested from and provided by each director concerning his background, employment and affiliations, including family relationships, our board of directors has determined that none of Messrs. Baruch, Burkett, Federman, Scalise and Walecka or Dr. McWilliams, representing six of our eight directors, has a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each of these directors is "independent" as that term is defined under the rules of The NASDAQ Stock Market. Our board of directors also determined that Messrs. Burkett and Scalise and Dr. McWilliams, who comprise our audit committee, Messrs. Baruch, Federman and Walecka, who comprise our compensation committee, and Messrs. Baruch and Scalise and Dr. McWilliams, who comprise our nominating and governance committee, satisfy the independence standards for those committees established by applicable SEC rules and the rules of The NASDAQ Stock Market. In making this determination, our board of directors considered the relationships that each non-employee director has with our company and all other facts and circumstances our board of directors deemed relevant in determining their independence, including the beneficial ownership of our capital stock by each non-employee director.

Board Committees

Our board of directors has the following committees: an audit committee, a compensation committee and a nominating and corporate governance committee. The composition and responsibilities of each committee are described below. Members serve on these committees until their resignation or until otherwise determined by our board of directors.

Audit Committee

Our audit committee oversees our corporate accounting and financial reporting process. Among other matters, the audit committee: appoints the independent registered public accounting firm; evaluates the independent registered public accounting firm's qualifications, independence and performance; determines the engagement of the independent registered public accounting firm; reviews and approves the scope of the annual audit and the audit fee; discusses with management and the independent registered public accounting firm the results of the annual audit and the review of our quarterly consolidated financial statements; approves the retention of the independent registered public accounting firm to perform any proposed permissible non-audit services; monitors the rotation of partners of the independent registered public accounting firm on our engagement team as required by law; reviews our consolidated financial statements and our management's discussion and analysis of financial condition and results of operations to be included in our annual and quarterly reports to be filed with the SEC; reviews our critical accounting policies and estimates; and annually reviews the audit committee charter and the committee's performance. The current members of our audit committee are Messrs. Burkett and Scalise and Dr. McWilliams. Mr. Burkett serves as the chairman of the committee. All members of our audit committee meet the requirements for financial literacy under the applicable rules and regulations of the SEC and The NASDAQ Stock Market. Our board of directors has determined that Mr. Burkett is an audit committee financial expert as defined under the applicable rules of the SEC and has the requisite financial sophistication as defined under the applicable rules and regulations of The NASDAQ Stock Market. Each of the members of our audit committee qualifies as an independent director under the applicable rules and regulations of the SEC and The NASDAQ Stock Market relating to audit committee independence. The audit committee operates under a written charter that satisfies the applicable standards of the SEC and The NASDAQ Stock Market.

Compensation Committee

Our compensation committee reviews and recommends policies relating to compensation and benefits of our officers and employees. The compensation committee reviews and approves corporate goals and objectives relevant to compensation of our Chief Executive Officer and other executive officers, evaluates the performance of these officers in light of those goals and objectives, and sets the compensation of these officers based on such evaluations. The compensation committee also approves grants of stock options and other awards under our stock plans. The compensation committee will review and evaluate, at least annually, the performance of the compensation committee and its members, including compliance of the compensation committee with its charter. The current members of our compensation committee are Messrs. Baruch, Federman and Walecka. Mr. Baruch serves as the chairman of the committee. Each of the members of our compensation committee is an independent or outside director under the applicable rules and regulations of the SEC, The NASDAQ Stock Market and the Internal Revenue Code of 1986, as amended relating to compensation committee independence. The compensation committee operates under a written charter.

Nominating and Corporate Governance Committee

The nominating and corporate governance committee is responsible for making recommendations to our board of directors regarding candidates for directorships and the size and composition of our board of directors. In addition, the nominating and corporate governance committee is responsible for overseeing our corporate governance policies and reporting and making recommendations to our board of directors concerning governance matters. The current members of our nominating and corporate governance committee are Messrs. Baruch and Scalise and Dr. McWilliams. Mr. Baruch serves as the chairman of the committee. Each of the members of our nominating and corporate governance committee is an independent director under the applicable rules and regulations of the SEC and The

NASDAQ Stock Market relating to nominating and corporate governance committee independence. The nominating and corporate governance committee operates under a written charter.

There are no family relationships among any of our directors or executive officers.

Compensation Committee Interlocks and Insider Participation

None of the members of our compensation committee has at any time during the prior three years been an officer or employee of ours. None of our executive officers currently serves or in the prior three years has served as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving on our board of directors or compensation committee.

Code of Business Conduct and Ethics

We will adopt a code of business conduct and ethics that applies to all of our employees, officers and directors, including those officers responsible for financial reporting. The code of business conduct and ethics will be available on our website at www.intermolecular.com. Any amendments to the code, or any waivers of its requirements, will be disclosed on our website. Information contained on or accessible through our website is not incorporated by reference into this prospectus, and you should not consider information contained on or accessible through our website to be part of this prospectus.

EXECUTIVE COMPENSATION

Compensation Discussion and Analysis

This section discusses the principles underlying our policies and decisions with respect to the compensation of our executive officers who are named in the "2010 Summary Compensation Table" and the most important factors relevant to an analysis of these policies and decisions. In 2010, our "named executive officers" were as follows:

David. E. Lazovsky, Chief Executive Officer and President;

Peter L. Eidelman, Chief Financial Officer;

Tony P. Chiang, Chief Technology Officer;

J. Craig Hunter, Senior Vice President and General Manager, Clean Energy Group; and

Sandeep Jaggi, General Counsel and Senior Vice President of Intellectual Property.

The titles above reflect promotions received by Mr. Hunter and Dr. Jaggi in July 2011. In 2010, Mr. Hunter's principal position was Vice President and General Manager, Clean Energy Technologies, and Dr. Jaggi's position was Vice President, Legal Affairs, Licensing and Intellectual Property.

The following discussion and analysis of compensation arrangements of our named executive officers should be read together with the compensation tables and related disclosures set forth below. This discussion may contain forward-looking statements that are based on our current plans, considerations, expectations and determinations regarding future compensation programs. Actual compensation programs that we adopt following the consummation of this offering may differ materially from the currently-planned programs summarized in this discussion.

Determination of Compensation

Roles of Our Compensation Committee and Chief Executive Officer in Compensation Decisions

Our compensation committee is responsible for overseeing our executive compensation program, as well as determining and approving the ongoing compensation arrangements for our Chief Executive Officer and other named executive officers. The compensation committee meets periodically throughout the year to review and determine adjustments, if any, to the compensation, including base salary, annual bonus and long-term equity awards, for our named executive officers, including our Chief Executive Officer. For 2010, the compensation committee determined each individual component of compensation for our named executive officers. Following the consummation of this offering, the compensation committee will continue to oversee the review process for all named executive officers.

Our Chief Executive Officer evaluates the individual performance and contributions of each other named executive officer and, at least annually, reports to the compensation committee his recommendations regarding each element of the other named executive officers' compensation. Our Chief Executive Officer does not participate in any formal discussion with the compensation committee regarding decisions on his own compensation and recuses himself from meetings when his compensation is discussed.

We do not generally rely on formulaic guidelines for determining the mix or levels of cash and equity-based compensation, but rather maintain a flexible compensation program that allows us to adapt components and levels of compensation to motivate and reward individual named executive officers within the context of our desire to attain financial and operational goals. Subjective factors considered in compensation determinations include a named executive officer's skills and capabilities, contributions as a member of the executive management team, contributions to our overall performance and whether the total compensation potential and structure is sufficient to ensure the

retention of a named executive officer when considering the compensation potential that may be available elsewhere.

Competitive Market Data and Engagement of Compensation Consultants

The market for experienced management is highly competitive in our industry. Our goal is to attract and retain the most highly qualified executives to manage each of our business functions. In doing so, we draw upon a pool of talent that is highly sought after both by large and established technology companies in our geographic area and by other competitive companies in development or early stage phases. Established organizations in our industry seek to recruit top talent from emerging companies in the sector just as smaller organizations look to attract and retain the best talent from the industry as a whole. The competition for technical and non-technical skills is aggressive across the sector and we expect it to remain aggressive for the foreseeable future.

Our compensation committee determines compensation for our named executive officers, in large part based upon our financial resources, but also considering competitive market data. Prior to 2010, in making compensation determinations the compensation committee relied on the recommendations from our Chief Executive Officer and the experience of its members in similar companies. In setting both cash and equity compensation for 2010, our compensation committee conducted a review of our named executive officer compensation, as well as the mix of elements used to compensate our named executive officers, and compared this compensation information with data contained in third-party surveys produced by Thelander and Radford. The surveys compiled executive compensation data primarily from private technology and life sciences companies and reported such data on an aggregate basis. The surveys reported compensation, position and responsibilities of executives. While our compensation committee reviewed compensation levels and elements derived from this supplemental industry data, our compensation committee was not aware of the identity of any of the surveyed companies and, as such, did not rely on data for any single company.

Historically, our compensation committee has not engaged the services of a compensation consultant; however, in connection with this offering, our compensation committee has engaged a compensation consultant directly to assist the committee in designing programs and setting compensation levels that are appropriate for a public company.

Executive Compensation Philosophy and Objectives

We operate in the highly competitive and dynamic technology industry, which is characterized by frequent technological advances and rapidly changing market requirements. To succeed in this environment, we must continuously develop and refine new and existing products and services, and to achieve these objectives, we need a highly talented and seasoned team of technical, sales, marketing, operations, financial and other business professionals. Our executive compensation philosophy recognizes that, given that the market for experienced management is highly competitive in our industry, key and core to our success is our ability to attract and retain the most highly-qualified executives to manage each of our business functions. We regard as fundamental that executive officer compensation be structured to provide competitive base salaries and benefits to attract and retain superior employees, and to provide incentive compensation to motivate executive officers to attain, and to reward executive officers for attaining, established financial, operational and other goals that are consistent with increasing stockholder value.

In determining the form and amount of compensation payable to the named executive officers, we are guided by the following objectives and principles:

Compensation levels should be competitive to attract and retain key executives, and should reflect internal parity. We aim to provide an executive compensation program that attracts, motivates and retains high performance individuals and rewards them for our achieving and maintaining a

competitive position in our industry. Total compensation (i.e., maximum achievable compensation) should increase with position and responsibility.

Compensation should relate directly to performance, and incentive compensation should constitute a significant portion of total compensation. We aim to foster a pay-for-performance culture, with a significant portion of total compensation being "at risk." Accordingly, a significant portion of total compensation should be tied to and vary with our financial, operational and strategic performance, as well as individual performance. Executives with greater roles and the ability to directly impact our strategic goals and long-term results should bear a greater proportion of the risk that these goals and results are not achieved. The amount of "at risk pay" is determined accordingly.

Long-term incentive compensation should align executives' interests with our stockholders' interests, and should reinforce a culture of ownership excellence and responsiveness. Awards of long-term incentives, including equity-based compensation, encourage executives to focus on our long-term growth and prospects and incentivize executives to manage the company from the perspective of stockholders with a meaningful stake in our success, as well as to focus on long-term career orientation.

Compensation should enable executives to share in the success that they help create. We aim to motivate and reward our executive officers whose knowledge, skills and performance ensure our continued success. Our compensation programs are designed to recognize the impact of our executive officers on our company's achievements.

We design the principal components of our executive compensation program to fulfill one or more of the principles and objectives described above. Compensation for our named executive officers consists of the elements identified in the following table:

Compensation Element	Primary Objective
Base salary	To recognize ongoing performance of job responsibilities and as a necessary tool in attracting and retaining employees
Annual performance-based cash compensation (bonuses)	To emphasize corporate and individual objectives and provide reward opportunities for our named executive officers (and employees generally) when key business and individual objectives are met
Long-term equity incentive compensation	To incentivize and reward increases in stockholder value, to emphasize and reinforce our focus on team success and to attract and retain key employees
Retirement savings (401(k)) plan	To provide retirement savings in a tax-efficient manner
Health and welfare benefits	To provide a basic level of protection from health, dental, life and disability risks

We view the components of our executive compensation program as related but distinct, and we regularly reassess the total compensation of our named executive officers to ensure that our overall compensation objectives are met. Historically, not all components have been provided to our named executive officers. We have considered, but not relied exclusively upon, the following factors in determining the appropriate level for each compensation component: our understanding of the competitive market based on the collective experience of members of our compensation committee and their review of compensation surveys; our recruiting and retention goals; our view of internal equity

and consistency; the length of service of our executive officers; our overall performance and other considerations our compensation committee determines are relevant.

Each of the primary elements of our executive compensation program is discussed in more detail below. While we have identified particular compensation objectives that each element of executive compensation serves, our compensation programs are designed to be flexible and complementary and to collectively serve all of the executive compensation objectives described above. Accordingly, whether or not specifically mentioned below, we believe that, as a part of our overall executive compensation policy, each individual element, to a greater or lesser extent, serves each of our compensation objectives and that, collectively, they are effective in achieving our overall objectives.

Elements of Executive Compensation Program

The following describes the primary components of our executive compensation program for each of our named executive officers, the rationale for that component and how compensation amounts are determined.

Base Salary

We provide our executive officers, including our named executive officers, with a base salary to compensate them for services rendered to our company during the fiscal year. The base salary payable to each named executive officer is intended to provide a fixed component of compensation reflecting the executive's skill set, experience, role and responsibilities. Generally, initial base salary amounts were established based on consideration of, among other factors, the scope of the named executive officer's responsibilities, years of service and the compensation committee's general knowledge of the competitive market based on, among other things, experience with other companies and our industry.

Thereafter, the base salaries of our named executive officers have been reviewed annually by the compensation committee and merit salary increases have been made as deemed appropriate based on such factors as the scope of an executive officer's responsibilities, individual contribution, prior experience and sustained performance.

In February 2010, the compensation committee approved a base salary increase of 3.5% for each of our named executive officers other than Dr. Chiang, who received an increase of 8%. The base salary increases were partially merit-based and also reflected a cost of living adjustment for each of our named executive officers. Dr. Chiang received a larger salary increase based on his significant contributions to us in 2009, reflecting his increased responsibilities with respect to managing our engineering and technology divisions. The actual base salaries paid to the named executive officers during 2010 are set forth in the "2010 Summary Compensation Table" below.

In February 2011, the compensation committee approved base salary increases of 22.3%, 8.5%, 8.2% and 8.7%, for Messrs. Lazovsky, Eidelman and Hunter and Dr. Chiang, respectively. In addition, the compensation committee approved base salary increases, effective November 1, 2011, of 11%, 6.8%, 9.4%, 7.6% and 1.5% for Messrs. Lazovsky, Eidelman, Hunter and Jaggi and Dr. Chiang, respectively. The base salary increases reflected the compensation committee's review of compensation survey data and the experience of its members with similar companies.

Annual Performance-Based Compensation

We use cash bonuses to motivate our named executive officers to achieve our short-term financial and strategic objectives while making progress towards our longer-term growth and other goals.

We provide cash bonuses to incentivize named executive officers to achieve annual corporate performance goals. All of our named executive officers are eligible for annual cash bonuses, which are determined annually at the discretion of the compensation committee. Determination of the bonus

payouts for the named executive officers is based on funding of our company-wide bonus pool. For 2010, the bonus pool was funded based on our achievement of pre-established targets. A base bonus pool was established at a level of 8% of our base salary accrual. Our compensation committee established the target size of the bonus pool based upon the experience of its members with similar companies and after reviewing the compensation surveys. The achievement of each corporate performance objective target was weighted, such that the available bonus pool would be determined by multiplying the percentage of corporate performance objectives actually achieved (as determined based on the respective weighting of each objective) by the base bonus pool. The table below sets forth the 2010 pre-established corporate performance targets and relevant weighting:

2010 Corporate Performance Objectives	Weighting of Corporate Performance Objectives
Positive pro forma profit	6.66%
EBITDA profit greater than 10%	6.67%
2010 year-end cash greater than $20 million	6.67%
Bookings greater than $50 million	30%
Revenue greater than $40 million	15%
Customer production qualification milestone	10%
Customer qualification milestone	10%
Customer HPC-derived product revenue greater than $10 million	7.5%
HPC WF and Informatics license renewals greater than $5.3 million	7.5%

In order to be considered in determining the size of the bonus pool, we must achieve at least 80% of the goal of certain performance objectives, such as bookings greater than $50 million and revenue greater than $40 million; other performance objectives, such as positive pro forma profit, require achievement of the stated goal in order to be considered in determining the size of the bonus pool. Based on our achievement of each performance objective, the weighting of the performance objective may be increased or decreased as determined by the compensation committee in its discretion. Based on our actual achievement in 2010 of 98% of the corporate performance objectives, in early 2011, the compensation committee established a bonus pool equal to 8% of our base salary accrual, or approximately $1.2 million, of which 40% was reserved for executive management, including named executive officers. The compensation committee in its discretion determines the size of our Chief Executive Officer's cash bonus award. Except with respect to himself, our Chief Executive Officer recommends the size of the cash bonus award for each named executive officer, but each award is ultimately determined by the compensation committee in its discretion. One factor considered in making bonus determinations was the compensation committee's performance review of our executive officers, which accounts for, among other things, the executive's initiative, teamwork, management skills and communications. The cash bonuses paid to our named executive officers for the 2010 fiscal year are set forth in the "2010 Summary Compensation Table" below.

In addition, in the first quarter of 2010, we awarded a $110,000 discretionary cash bonus to Mr. Lazovsky based on the successful execution of a multi-year customer contract. As he was eligible to receive a cash bonus upon execution of the contract, we did not award Mr. Lazovsky a separate discretionary annual cash bonus under our 2009 bonus pool for services rendered in 2009.

Long-Term Equity-Based Incentives

The goals of our long-term equity-based awards are to reward and encourage long-term corporate performance based on the value of our common stock and, thereby, to align the interests of our executive officers, including our named executive officers, with those of our stockholders. Our board of directors adopted the 2004 Equity Incentive Plan (amended and restated on September 5, 2007), or the

2004 Plan, in order to attract and retain the best available personnel for positions of substantial responsibility, to provide additional incentives to our employees, consultants and non-employee directors and to promote the success of our business. The 2004 Plan provided for the grant of stock options and restricted stock.

In October 2011, we adopted the 2011 Incentive Award Plan, or the 2011 Plan, which will be effective upon the consummation of this offering. From and after the adoption of the 2011 Plan, no further grants have been or will be made under the 2004 Plan. For additional information regarding the 2004 Plan and the 2011 Plan, see the section entitled "−Equity Incentive Plans" below. We do not currently have any formal stock ownership requirements or guidelines for our named executive officers, given the limited market for our securities. Our compensation committee will continue to periodically review best practices and re-evaluate our position with respect to such requirements or guidelines.

Equity Award Features. Historically we have granted stock options to our named executive officers. Since our named executive officers are able to benefit from stock options only if the market price of our common stock increases relative to the stock option's exercise price, we believe stock options provide meaningful incentives to our named executive officers to achieve increases in the value of our stock over time and are an effective tool for meeting our compensation goal of increasing long-term stockholder value by tying the value of these stock options to our future performance. We also believe stock option grants encourage the retention of our named executive officers because the vesting of equity awards is largely based on continued employment.

We generally use stock options to compensate our named executive officers in the form of both initial grants in connection with the commencement of employment and additional "incentive" grants. The compensation committee, based on recommendations from our Chief Executive Officer and its review of compensation survey data, approves a pool of shares to be awarded to employees as an annual incentive grant and reserves 25 - 30% of the pool for stock options to be granted to the executive management team. To date, there has been no set program for the award of incentive grants, and our compensation committee retains discretion to make stock option awards to employees at any time, including in connection with the promotion of an employee, to reward an employee, for retention purposes or in other circumstances recommended by management.

The exercise price of each stock option grant is equal to the fair market value of our common stock on the grant date. Since 2007, the determination of the appropriate fair market value of our common stock has been made by our compensation committee. In the absence of a public trading market, our compensation committee has reviewed a common stock valuation analysis prepared by an independent third-party appraiser in determining the fair market value of our common stock. It is our policy that stock options granted after the consummation of this offering will have a per share exercise price that is not less than the closing price of a share of our common stock on the grant date. Stock options typically vest over a four-year period as follows: 25% of the shares underlying an option vest on the first anniversary of the vesting commencement date, and the remainder of the shares underlying an option vest in substantially equal monthly installments over the next 36 months. Stock options granted to our named executive officers in 2007 and prior years may be exercised prior to fully vesting but are subject to a right of repurchase by us at the exercise price paid by the named executive officer that lapses pursuant to the vesting schedule of the option. We believe the vesting schedule of our stock options appropriately encourages long-term employment with our company while allowing our executives to realize compensation in line with the value they have created for our stockholders.

In February 2010, each of our named executive officers, other than Mr. Jaggi, was granted an option to purchase shares of our common stock as part of our annual incentive grant program. These options are subject to the vesting terms described in the paragraph immediately above and were granted at an exercise price of $2.66 per share, which was equal to the fair market value of our common stock on the grant date. In August 2010, in connection with the commencement of his

employment, Mr. Jaggi was granted an option to purchase 250,000 shares of our common stock at an exercise price of $2.66 per share, which was equal to the fair market value of our common stock on the grant date.

In March 2011, each of our named executive officers was granted an option to purchase shares of our common stock as part of our annual incentive grant program. These options are subject to the vesting terms described above and were granted at an exercise price of $6.20 per share, which was equal to the fair market value of our common stock on the grant date. In determining the size of the incentive grants, the compensation committee approved a pool of 600,000 shares, of which 30% were reserved for executives. In determining the size of the stock option pool and the allocation to named executive officers, the compensation committee reviewed the compensation survey data and drew upon the experience of its members with similar companies.

Name	2010 Stock Option Grants	March 2011 Stock Option Grants
David E. Lazovsky	187,500	52,500
Peter L. Eidelman	100,000	25,000
Tony P. Chiang	187,500	37,500
J. Craig Hunter	65,000	25,000
Sandeep Jaggi	250,000	25,000

Retirement Savings.

We maintain a retirement savings plan under section 401(k) of the Internal Revenue Code, or the Code, to provide retirement benefits to our eligible employees. The Code allows eligible employees to defer a portion of their compensation, within prescribed limits, which may be on a pre-tax basis through contributions to the 401(k) plan. Historically, the 401(k) plan has been funded entirely with employee contributions; however, in the future, we may match a portion of our employees' annual contributions, within prescribed limits.

Employee Benefits and Perquisites.

All of our full-time employees, including our named executive officers, are eligible to participate in our health and welfare plans, including:

- medical, dental and vision benefits;
- medical and dependent care flexible spending accounts;
- short-term and long-term disability insurance; and
- life insurance.

Changes to Compensation Approach for 2011

In connection with the preparation of this offering, our compensation committee retained Compensia to further advise on compensation matters for 2011. The following is a discussion of the key changes to certain primary elements of compensation following the consummation of this offering for each of our named executive officers.

Change in Control Severance Agreements

We have entered into a Change in Control Severance Agreement with each of our named executive officers that will become effective upon the consummation of this offering. Under the terms of this agreement, each named executive officer would be entitled to the payments and benefits described below upon a qualifying termination of employment.

Change in Control and Involuntary Termination. If, on or after the first anniversary of the named executive officer's commencement of employment, the named executive officer's employment is terminated by us other than for "cause" or by the named executive officer for "good reason" (each, as defined in the Change in Control Severance Agreement) on or within the one-month period preceding, or the one-year period following, a "change in control," the named executive officer will be entitled to:

- the payment of accrued salary, bonus, vacation and expense reimbursement;
- immediate acceleration of all unvested equity compensation then held by the named executive officer;
- a lump sum payment equal to the sum of the named executive officer's annual base salary and his target annual bonus (or, with respect to Mr. Lazovsky only, 1.5 multiplied by such sum); and
- company-paid premiums for COBRA continuation coverage for up to 18 months (Mr. Lazovsky) or 12 months (all other named executive officers) after the date of termination.

Involuntary Termination. If, on or after the first anniversary of the named executive officer's commencement of employment, the named executive officer's employment is terminated by us other than for "cause" or by the named executive officer for "good reason" at any time other than the period beginning one month preceding and ending one year following a "change in control," the named executive officer will be entitled to:

- the payment of accrued salary, bonus, vacation and expense reimbursement;
- a lump sum payment equal to 12 months (Mr. Lazovsky) or six months (all other named executive officers) of the named executive officer's annual base salary; and
- company-paid premiums for COBRA continuation coverage for up to 12 months (Mr. Lazovsky) or six months (all other named executive officers) after the date of termination.

The named executive officer's right to receive the severance payments described above is subject to continued compliance with certain restrictive covenants and his delivery of an effective general release of claims in favor of the company.

Tax and Accounting Considerations

Internal Revenue Code Section 162(m). Generally, Section 162(m) of the Code, or Section 162(m), disallows a tax deduction for any publicly-held corporation for individual compensation exceeding $1.0 million in any taxable year to its chief executive officer and each of its other named executive officers, other than its chief financial officer, unless compensation qualifies as "performance-based compensation" within the meaning of the Code. As we are not currently publicly traded, our compensation committee has not previously taken the deductibility limit imposed by Section 162(m) into consideration in setting compensation. Following this offering, we expect that our compensation committee will seek to qualify the variable compensation paid to our named executive officers for an exemption from the deductibility limitations of Section 162(m). As such, in approving the amount and form of compensation for our named executive officers in the future, our compensation committee will consider all elements of the cost to us of providing such compensation, including the potential impact of Section 162(m). However, our compensation committee may, in its judgment, authorize compensation payments that do not comply with the exemptions in Section 162(m) when it believes that such payments are appropriate to attract and retain executive talent.

Furthermore, we do not expect Section 162(m) to apply to certain awards under the 2011 Plan until the earliest to occur of our annual stockholders' meeting in 2015, a material modification of the 2011 Plan or exhaustion of the shares reserved for issuance under the 2011 Plan.

Internal Revenue Code Section 409A. Section 409A of the Code requires that "nonqualified deferred compensation" be deferred and paid under plans or arrangements that satisfy the requirements of the Code with respect to the timing of deferral elections, timing of payments and certain other matters. Failure to satisfy these requirements can expose employees and other service providers to accelerated income tax liabilities, penalty taxes and interest on their vested compensation under such plans. Accordingly, as a general matter, it is our intention to design and administer our compensation and benefits plans and arrangements for all of our employees and other service providers, including our named executive officers, so that they are either exempt from, or satisfy the requirements of, Section 409A of the Code.

Internal Revenue Code Section 280G. Section 280G of the Code, or Section 280G, disallows a tax deduction with respect to excess parachute payments to certain executives of companies that undergo a change in control. In addition, Section 4999 of the Code, or Section 4999, imposes a 20% excise tax on the individual with respect to the excess parachute payment. Parachute payments are compensation linked to or triggered by a change in control and may include, but are not limited to, bonus payments, severance payments, certain fringe benefits, and payments and acceleration of vesting from long-term incentive plans including stock options and other equity-based compensation. Excess parachute payments are parachute payments that exceed a threshold determined under Section 280G based on the executive's prior compensation. In approving the compensation arrangements for our named executive officers in the future, our compensation committee will consider all elements of the cost to the company of providing such compensation, including the potential impact of Section 280G. However, our compensation committee may, in its judgment, authorize compensation arrangements that could give rise to loss of deductibility under Section 280G and the imposition of excise taxes under Section 4999 when it believes that such arrangements are appropriate to attract and retain executive talent.

Accounting for Stock-Based Compensation. We follow Financial Accounting Standards Board Accounting Standards Codification Topic 718, or ASC Topic 718, for our stock-based compensation awards. ASC Topic 718 requires companies to calculate the grant date "fair value" of their stock-based awards using a variety of assumptions. ASC Topic 718 also requires companies to recognize the compensation cost of their stock-based awards in their income statements over the period that an employee is required to render service in exchange for the award. Grants of stock options, restricted stock, restricted stock units and other equity-based awards under our equity incentive award plans will be accounted for under ASC Topic 718. Our compensation committee will regularly consider the accounting implications of significant compensation decisions, especially in connection with decisions that relate to our equity incentive award plans and programs. As accounting standards change, we may revise certain programs to appropriately align accounting expenses of our equity awards with our overall executive compensation philosophy and objectives.

Compensation Tables

2010 Summary Compensation Table

The following table sets forth information concerning the compensation of our named executive officers for the year ended December 31, 2010.

Name and Principal Position	Year	Salary($)	Bonus($)(3)	Option Awards($)(5)	Total($)
David E. Lazovsky Chief Executive Officer and President	2010	256,875	235,000(4)	498,750	990,625
Peter L. Eidelman Chief Financial Officer	2010	234,945	72,000	266,000	572,945
Tony P. Chiang Chief Technology Officer	2010	252,240	100,200	498,750	851,190
J. Craig Hunter(1) Senior Vice President and General Manager, Clean Energy Group	2010	206,417	50,100	172,900	429,417
Sandeep Jaggi(1)(2) General Counsel and Senior Vice President of Intellectual Property	2010	106,534	24,200	665,000	795,734

(1) In 2010, Mr. Hunter's principal position was Vice President and General Manager, Clean Energy Technologies, and Dr. Jaggi's position was Vice President, Legal Affairs, Licensing and Intellectual Property. Mr. Hunter and Dr. Jaggi were promoted to their current positions in July 2011.

(2) Dr. Jaggi's 2010 salary and bonus reflect his partial-year employment, which commenced on July 12, 2010.

(3) Amounts represent discretionary annual cash bonuses awarded from our 2010 bonus pool, which was funded based on our achievement of pre-established corporate performance objectives.

(4) Amount represents (i) $125,000 attributable to the discretionary annual cash bonus awarded to Mr. Lazovsky for performance of services rendered in 2010; and (ii) a cash bonus of $110,000 awarded to Mr. Lazovsky based on the successful execution of a multi-year customer contract in the first quarter of 2010. As Mr. Lazovsky was eligible to receive a cash bonus upon execution of this contract, he was not awarded a separate discretionary annual cash bonus under our 2009 bonus pool for services rendered in 2009.

(5) Amounts reflect the full grant-date fair value of stock options granted, computed in accordance with ASC Topic 718, rather than the amounts paid to or realized by the named individual. We provide information regarding the assumptions used to calculate the value of all stock option awards made to named executive officers in "Management's Discussion and Analysis of Financial Condition and Results of Operations−Critical Accounting Policies and Estimates−Stock-Based Compensation."

Grants of Plan-Based Awards in 2010

The following table sets forth information regarding grants of plan-based awards made to our named executive officers for the year ended December 31, 2010.

Name	Grant Date	All Other Option Awards: Number of Securities Underlying Options (# shares)(1)	Exercise or Base Price of Option Awards Per Share($)	Grant Date Fair Value of Stock and Options Awards ($)(2)
David E. Lazovsky	February 4, 2010	187,500	2.66	498,750
Peter L. Eidelman	February 4, 2010	100,000	2.66	266,000
Tony P. Chiang	February 4, 2010	187,500	2.66	498,750
J. Craig Hunter	February 4, 2010	65,000	2.66	172,900
Sandeep Jaggi	August 19, 2010	250,000	2.66	665,000

(1) Represents incentive stock options granted pursuant to our 2004 Plan. In August 2010, in connection with the commencement of his employment, Dr. Jaggi was granted a stock option to purchase 250,000 shares of our common stock.

(2) Amounts reflect the full grant-date fair value of stock options granted during 2010 computed in accordance with ASC Topic 718, rather than the amounts paid to or realized by the named individual. We provide information regarding the assumptions used to calculate the value of all stock option awards made to executive officers in "Management's Discussion and Analysis of Financial Condition and Results of Operations−Critical Accounting Policies and Estimates−Stock-Based Compensation."

Outstanding Equity Awards at 2010 Fiscal Year-End

The following table summarizes the number of shares of common stock underlying outstanding equity incentive plan awards for each named executive officer as of December 31, 2010.

	Option Awards(1)(2)				
Name	Vesting Commencement Date	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price ($)	Option Expiration Date
David E. Lazovsky	July 9, 2007(3)	300,000	0	1.66	September 4, 2017
	January 20, 2009	95,833	104,167	2.00	January 19, 2019
	February 1, 2010	0	187,500	2.66	February 3, 2020
Peter L. Eidelman	February 27, 2006(3)	312,500	0	0.20	May 4, 2016
	July 9, 2007(3)	57,500	0	1.66	September 4, 2017
	January 20, 2009	50,312	54,688	2.00	January 19, 2019
	February 1, 2010	0	100,000	2.66	February 3, 2020
Tony P. Chiang	May 9, 2005(3)	1,125,000	0	0.10	June 14, 2015
	July 9, 2007(3)	100,000	0	1.66	September 4, 2017
	January 20, 2009	95,833	104,167	2.00	January 19, 2019
	February 1, 2010	0	187,500	2.66	February 3, 2020
J. Craig Hunter	January 30, 2009	167,708	182,292	2.00	February 24, 2019
	February 1, 2010	0	65,000	2.66	February 3, 2020
Sandeep Jaggi	July 12, 2010	0	250,000	2.66	August 18, 2020

(1) Each stock option was granted pursuant to our 2004 Plan.

(2) Unless otherwise noted, these options vest as to $^1/_4$th of the total number of shares subject to the option on the first anniversary of the vesting commencement date, and as to $^1/_{48}$th of the total number of shares subject to the option in monthly installments over the three-year period thereafter, subject to continued service with our company through the applicable vesting dates and accelerated vesting under certain circumstances, as described under the section entitled "Potential Payments Upon Termination or Change in Control" below.

(3) Contains an early exercise provision permitting the executive to exercise the option prior to vesting, with any unvested shares subject to repurchase by us at the exercise price paid until the shares vest in accordance with the vesting schedule of the option.

2010 Option Exercises and Stock Vested

The Company has not granted any stock awards to its named executive officers. Additionally, our named executive officers did not exercise any stock options during 2010.

Potential Payments Upon Termination or Change in Control

Employment Letters

The employment letters for Mr. Hunter and Dr. Jaggi provide that the 50% of the shares subject to the stock options granted to each executive in connection with entering into their employment letters will accelerate immediately upon a termination of employment without "cause" or for "good reason" within twelve months of a "change in control" (each as defined in the relevant employment letter). Our compensation committee determined to provide these change in control severance arrangements in

order to mitigate some of the risk that exists for executives working in a small technology company. These arrangements are intended to attract and retain qualified executives that have alternatives that may appear to them to be less risky absent these arrangements, and to mitigate a potential disincentive to consider and execute any acquisition, particularly where the services of these executives may not be required by the acquirer.

Summary of Potential Payments

The following table summarizes the payments that would be made to certain of our named executive officers upon the occurrence of certain qualifying terminations of employment in connection with a change in control, assuming such named executive officer's termination of employment with us occurred on December 31, 2010 and, where relevant, that a change in control of Intermolecular occurred on December 31, 2010. Amounts shown in the table below do not include (i) accrued but unpaid salary, and (ii) other benefits earned or accrued by the named executive officer during his employment that are available to all salaried employees, such as accrued vacation.

Name	Benefit(1)	Termination without Cause or for Good Reason($)
J. Craig Hunter	Value of Accelerated Option Awards	127,604
Sandeep Jaggi	Value of Accelerated Option Awards	92,500

(1) Represents the aggregate value of the named executive officer's unvested stock options that would have vested on an accelerated basis, determined by multiplying the number of accelerating option shares by the fair market value of our common stock ($3.40) on December 31, 2010 (as determined by our board of directors) and subtracting the applicable exercise prices.

2010 Director Compensation

2010 Non-Employee Director Compensation Program

In 2010, none of our non-employee directors received cash or equity compensation for their services as a director. We have adopted a compensation program under our 2011 Plan for our non-employee directors, or the Program, which will be effective upon the consummation of this offering. Under the Program, non-employee members of our board of directors will receive a combination of cash and equity-based compensation, as described below:

Cash Compensation. Each non-employee director will be entitled to receive an annual cash retainer of $35,000. In addition, the non-employee directors will receive the following annual cash retainers (as applicable):

Audit committee chair: $20,000
Compensation committee chair: $10,000
Nominating and corporate governance committee chair: $7,500
Audit committee member (other than chair): $7,500
Compensation committee member (other than chair): $5,000
Nominating and corporate governance committee member (other than chair): $2,500
Independent Chairman: $20,000

Pursuant to the Program, all annual retainers will be paid quarterly in arrears.

Equity Compensation. Under the Program, a non-employee director will receive an initial stock option grant to purchase 20,000 shares of our common stock when he or she joins our board of directors. In addition, under the Program, a non-employee director will receive an annual stock option grant to purchase 10,000 shares of our common stock on the date of each annual meeting of our stockholders (provided that such non-employee director shall have served on our board of directors for at least six months prior to the date of such annual meeting). Each initial stock option grant will vest as to 25% of the underlying shares on each of the first, second, third and fourth anniversaries of the grant date, subject to the non-employee director's continued service with the Company through the applicable vesting date. Each annual stock option grant will vest in full on the earlier to occur of the first anniversary of the applicable grant date and the date of the annual meeting of our stockholders immediately following the applicable grant date, in each case subject to the non-employee director's continued service with the Company through the applicable vesting date. Each initial stock option grant and annual stock option grant will automatically vest in full and become exercisable immediately prior to a "change in control" (as defined in the 2011 Plan).

Equity Incentive Plans

2011 Incentive Award Plan

On October 26, 2011, we adopted the 2011 Plan, which will be effective upon the consummation of this offering. The principal purpose of the 2011 Plan is to attract, retain and motivate selected employees, consultants and directors through the granting of stock-based compensation awards and cash-based performance bonus awards. The 2011 Plan is also designed to permit us to make cash-based awards and equity-based awards intended to qualify as "performance-based compensation" under Section 162(m).

The principal features of the 2011 Plan are summarized below. This summary is qualified in its entirety by reference to the text of the 2011 Plan, which is filed as an exhibit to the registration statement of which this prospectus is a part.

Share Reserve. Under the 2011 Plan, shares of our common stock will be initially reserved for issuance pursuant to a variety of stock-based compensation awards, including stock options, stock appreciation rights, or SARs, restricted stock awards, restricted stock unit awards, deferred stock awards, dividend equivalent awards, stock payment awards, performance shares and other incentive awards. The number of shares initially reserved for issuance or transfer pursuant to awards under the 2011 Plan is equal to the sum of (i) 4,225,648 shares, (ii) any shares of our common stock which, as of the date on which the 2011 Plan was adopted, are (A) available for issuance under the 2004 Plan or (B) underlying awards outstanding under the 2004 Plan that, on or after the date on which the 2011 Plan was adopted, terminate, expire or lapse for any reason without delivery of shares to the holder thereof, up to a maximum of 8,390,685 shares and (iii) an annual increase on the first day of each fiscal year beginning in 2012 and ending in 2021, equal to the lesser of (A) 2,535,389 shares, (B) four and one-half percent (4.5%) of the shares of stock outstanding on the last day of the immediately preceding fiscal year and (C) such smaller number of shares of stock as determined by our board of directors, all of which may be issued as incentive stock options; provided, however, that shares shall be available for issuance as incentive stock options only to the extent that such shares will not cease to qualify as incentive stock options. Shares granted under the 2011 Plan may be treasury shares, authorized but unissued shares, or shares purchased in the open market.

The following counting provisions will be in effect for the share reserve under the 2011 Plan:

- to the extent that an award terminates, expires or lapses for any reason or an award is settled in cash without the delivery of shares, any shares subject to the award at such time will be available for future grants under the 2011 Plan;

to the extent shares are tendered or withheld to satisfy the grant, exercise price or tax withholding obligation with respect to any award under the 2011 Plan, such tendered or withheld shares will be available for future grants under the 2011 Plan;

to the extent that shares of our common stock are repurchased by us prior to vesting so that shares are returned to us, such shares will be available for future grants under the 2011 Plan;

the payment of dividend equivalents in cash in conjunction with any outstanding awards will not be counted against the shares available for issuance under the 2011 Plan; and

awards granted (and shares issued) upon or in connection with the assumption of, or in substitution for, any outstanding awards under a qualifying equity plan of any entity acquired in any form of combination by us or any of our subsidiaries will not be counted against the shares available for issuance under the 2011 Plan.

However, the following shares may not be added back to the share reserve under the 2011 Plan:

shares subject to a SAR that are not issued in connection with the stock settlement of the SAR on its exercise; and

shares purchased on the open market with the cash proceeds from the exercise of options.

After a transition period that may apply following the effective date of this offering, the maximum number of shares of our common stock that may be subject to one or more awards granted to any one participant pursuant to the 2011 Plan during any calendar year will be 2,000,000 and the maximum amount that may be paid in cash pursuant to the 2011 Plan to any one participant during any calendar year will be two million dollars ($2,000,000).

Administration. The compensation committee of our board of directors will administer the 2011 Plan unless our board of directors assumes authority for administration. The compensation committee must consist solely of two or more members of our board of directors, each of whom is intended to qualify as an "outside director," within the meaning of Section 162(m), a "non-employee director" for purposes of Rule 16b-3 under the Exchange Act and an "independent director" within the meaning of the rules of The NASDAQ Stock Market and the New York Stock Exchange, or other principal securities market on which shares of our common stock are traded. The 2011 Plan provides that the compensation committee may delegate its authority to grant awards to employees other than our executive officers and certain senior executives to a committee consisting of one or more members of our board of directors or one or more of our officers and the equity awards policy we expect to adopt in 2011 calls for the compensation committee to approve all equity awards, other than awards made to our non-employee directors, which must be approved by our full board of directors.

Subject to the terms and conditions of the 2011 Plan, the administrator has the authority to select the persons to whom awards are to be made, to determine the number of shares to be subject to awards and the terms and conditions of awards, and to make all other determinations and to take all other actions necessary or advisable for the administration of the 2011 Plan. The administrator is also authorized to make all determinations and interpretations under, and adopt or revise rules relating to administration of, the 2011 Plan. Our board of directors may at any time remove the compensation committee as the administrator and revest in itself the authority to administer the 2011 Plan. The full board of directors will administer the 2011 Plan with respect to awards to non-employee directors.

Eligibility. Awards under the 2011 Plan may be granted to individuals who are then our officers, employees or consultants or are the officers, employees or consultants of our affiliates. Such awards also may be granted to our directors. Only employees of our company or certain of our affiliates may be granted incentive stock options, or ISOs.

Awards. The 2011 Plan provides that the administrator may grant or issue stock options, SARs, restricted stock, restricted stock units, deferred stock, dividend equivalents, performance awards, stock payments, performance shares and other incentive awards, or any combination thereof. Each award will be set forth in a separate agreement with the person receiving the award and will indicate the type, terms and conditions of the award.

Nonstatutory Stock Options, or NSOs, will provide for the right to purchase shares of our common stock at a specified exercise price which may not be less than fair market value on the date of grant, and usually will vest and become exercisable (at the discretion of the administrator) in one or more installments after the grant date, subject to the participant's continued employment or service with us or our affiliates and/or subject to the satisfaction of corporate performance targets and individual performance targets established by the administrator. NSOs may be granted for any term specified by the administrator that does not exceed ten years.

Incentive Stock Options, or ISOs, will be designed in a manner intended to comply with the provisions of Section 422 of the Code and will be subject to specified restrictions contained in the Code. Among such restrictions, ISOs must have an exercise price of not less than the fair market value of a share of common stock on the date of grant, may only be granted to employees, and must not be exercisable after a period of ten years measured from the date of grant. In the case of an ISO granted to an individual who owns (or is deemed to own) more than 10% of the total combined voting power of all classes of our capital stock, the 2011 Plan provides that the exercise price must be at least 110% of the fair market value of a share of common stock on the date of grant and the term of the ISO must not exceed five years.

Restricted Stock may be granted to any eligible individual and made subject to such restrictions as may be determined by the administrator. Restricted stock, typically, may be forfeited for no consideration or repurchased by us at the original purchase price if the conditions or restrictions on vesting are not met. In general, restricted stock may not be sold or otherwise transferred until restrictions are removed or expire or certain conditions are met. Recipients of restricted stock, unlike recipients of options, will have voting rights and will have the right to receive dividends, if any, prior to the time when the restrictions lapse, however, extraordinary dividends will generally be subject to the conditions or restrictions on vesting applicable to the underlying shares.

Restricted Stock Units may be awarded to any eligible individual, typically without payment of consideration, but subject to vesting conditions based on continued employment or service or on performance or other criteria established by the administrator. Like restricted stock, restricted stock units may not be sold, or otherwise transferred or hypothecated, until vesting conditions are removed or expire. Unlike restricted stock, stock underlying restricted stock units will not be issued until the restricted stock units have vested, and recipients of restricted stock units generally will have no voting or dividend rights prior to the time when vesting conditions are satisfied.

Deferred Stock Awards represent the right to receive shares of our common stock on a future date. Deferred stock may not be sold or otherwise hypothecated or transferred until issued. Deferred stock will not be issued until the deferred stock award has vested, and recipients of deferred stock generally will have no voting or dividend rights prior to the time when the vesting conditions are satisfied and the shares are issued. Deferred stock awards generally will be forfeited, and the underlying shares of deferred stock will not be issued, if the applicable vesting conditions and other restrictions are not met.

Stock Appreciation Rights typically will provide for payments to the holder based upon increases in the price of our common stock over a set exercise price. The exercise price of any SAR granted under the 2011 Plan must be at least 100% of the fair market value of a share of our common stock on the date of grant. Vesting conditions and restrictions, including continued employment or service with us or our affiliates and/or performance and other conditions, may be imposed by the administrator in

the SAR agreements. SARs under the 2011 Plan will be settled in cash or shares of our common stock, or in a combination of both, at the election of the administrator.

Dividend Equivalents represent the value of the dividends, if any, per share paid by us, calculated with reference to the number of shares covered by the award. Dividend equivalents may be settled in cash or shares, at such times and subject to such limitations as determined by the administrator.

Performance Awards will be based upon specific performance targets and may be paid in cash or in common stock or in a combination of both. Performance awards may include cash bonuses.

Stock Payments may be authorized by the administrator in the form of common stock as part of a deferred compensation or other arrangement in lieu of all or any part of compensation, including bonuses, that would otherwise be payable in cash to the employee, consultant or non-employee director.

Performance Shares are contractual rights to receive a range of shares of our common stock in the future based on the attainment of specified performance goals, in addition to other conditions which may apply to these awards. Conditions applicable to performance shares may be based on continuing service with us or our affiliates, the attainment of performance goals and/or such other conditions as the administrator may determine.

Other Incentive Awards are awards other than those enumerated in this summary that are denominated in, linked to or derived from shares of our common stock or value metrics related to our shares, and may remain forfeitable unless or until specified conditions are met.

Non-Employee Director Awards. Our board of directors may grant awards under the 2011 Plan to our non-employee directors pursuant to a written non-discretionary formula established by the administrator. The program will specify the type or types of awards to be granted, the number of shares subject to each award, and the terms and conditions applicable to each award, as determined by the administrator in its discretion.

Change in Control. In the event of a change in control where the acquiror does not assume or replace awards granted, prior to the consummation of such transaction, awards issued under the 2011 Plan will be subject to accelerated vesting such that 100% of such awards will become vested and exercisable or payable, as applicable. In addition, the administrator will also have complete discretion to structure one or more awards under the 2011 Plan to provide that such awards will become vested and exercisable or payable on an accelerated basis in the event such awards are assumed or replaced with equivalent awards but the individual's service with us or the acquiring entity is subsequently terminated within a designated period following the change in control event. The administrator may also make appropriate adjustments to awards under the 2011 Plan and is authorized to provide for the acceleration, cash-out, termination, assumption, substitution or conversion of such awards in the event of a change in control or certain other unusual or nonrecurring events or transactions. Under the 2011 Plan, a change in control is generally defined as:

the transfer or exchange in a single transaction or series of related transactions by our stockholders of more than 50% of our voting stock to a person or group;

a change in the composition of our board of directors over a two-year period such that 50% or more of the members of the board of directors were elected through one or more contested elections;

a merger, consolidation, reorganization or business combination, a sale or other disposition of all or substantially all of our assets, or our acquisition of assets or stock of another entity, other than a transaction which results in our outstanding voting securities immediately before the transaction continuing to represent a majority of the voting power of the acquiring company's

outstanding voting securities and after which no person or group beneficially owns 50% or more of the outstanding voting securities of the surviving entity; or

stockholder approval of our liquidation or dissolution.

Adjustments of Awards. In the event of any stock dividend, stock split, combination or exchange of shares, merger, consolidation, spin-off, recapitalization, distribution of our assets to stockholders (other than normal cash dividends) or any other corporate event affecting the number of outstanding shares of our common stock or the share price of our common stock that would require adjustments to the 2011 Plan or any awards under the 2011 Plan in order to prevent the dilution or enlargement of the potential benefits intended to be made available thereunder, the administrator will make equitable adjustments to:

the aggregate number and type of shares subject to the 2011 Plan;

the number and kind of shares subject to outstanding awards and terms and conditions of outstanding awards (including, without limitation, any applicable performance targets or criteria with respect to such awards); and

the grant or exercise price per share of any outstanding awards under the 2011 Plan.

Repricing and Participant Payments. Subject to applicable limitations of the Code and other applicable law, the administrator is able to increase or reduce the applicable price per share of an award, or cancel and replace an award with another award and/or cash. With regard to tax withholding, exercise price and purchase price obligations arising in connection with awards under the 2011 Plan, the administrator may, in its discretion, accept cash or check, shares of our common stock that meet specified conditions, a "market sell order" or such other consideration as it deems acceptable.

Amendment and Termination. Our board of directors may suspend, amend or modify the 2011 Plan at any time and from time to time. However, we must generally obtain stockholder approval to increase the number of shares available under the 2011 Plan (other than in connection with certain corporate events, as described above).

Our board of directors may terminate the 2011 Plan at any time. No incentive stock options may be granted pursuant to the 2011 Plan after the tenth anniversary of the adoption date of the 2011 Plan, and no additional annual share increases to the 2011 Plan's aggregate share limit will occur from and after the tenth anniversary of the effective date of the 2011 Plan; however, the 2011 Plan does not have a specified expiration date and will otherwise continue in effect until terminated by us. Any award that is outstanding on the termination date of the 2011 Plan will remain in force according to the terms of the 2011 Plan and the applicable award agreement.

Securities Laws and U.S. Federal Income Taxes. The 2011 Plan is designed to comply with various securities and U.S. federal tax laws as follows:

Securities Laws. The 2011 Plan is intended to conform to all provisions of the Securities Act and the Exchange Act and any and all regulations and rules promulgated by the SEC thereunder, including without limitation, Rule 16b-3. The 2011 Plan will be administered, and options will be granted and may be exercised, only in such a manner as to conform to such laws, rules and regulations.

Section 409A of the Code. Certain awards under the 2011 Plan may be considered "nonqualified deferred compensation" for purposes of Section 409A of the Code (Section 409A) which imposes certain additional requirements regarding the payment of deferred compensation. Generally, if at any time during a taxable year a nonqualified deferred compensation plan fails to meet the requirements of Section 409A, or is not operated in accordance with those requirements, all amounts deferred under the 2011 Plan and all other equity incentive plans for the taxable year and all preceding taxable years by any participant with respect to whom the failure relates are includible in gross income for the

taxable year to the extent not subject to a substantial risk of forfeiture and not previously included in gross income. If a deferred amount is required to be included in income under Section 409A, the amount also is subject to interest and an additional income tax. The interest imposed is equal to the interest at the underpayment rate plus one percentage point, imposed on the underpayments that would have occurred had the compensation been includible in income for the taxable year when first deferred, or if later, when not subject to a substantial risk of forfeiture. The additional U.S. federal income tax is equal to 20% of the compensation required to be included in gross income. In addition, certain states, including California, have laws similar to Section 409A, which impose additional state penalty taxes on such compensation.

Section 162(m) of the Code. In general, under Section 162(m), income tax deductions of publicly held corporations may be limited to the extent total compensation (including, but not limited to, base salary, annual bonus, and income attributable to stock option exercises and other non-qualified benefits) for certain executive officers exceeds $1,000,000 (less the amount of any "excess parachute payments" as defined in Section 280G) in any taxable year of the corporation. However, under Section 162(m), the deduction limit does not apply to certain "performance-based compensation" established by an independent compensation committee that is adequately disclosed to and approved by stockholders. In particular, stock options and SARs will satisfy the "performance-based compensation" exception if the awards are made by a qualifying compensation committee, the 2011 Plan sets the maximum number of shares that can be granted to any person within a specified period and the compensation is based solely on an increase in the stock price after the grant date. Specifically, the option exercise price must be equal to or greater than the fair market value of the stock subject to the award on the grant date. Under a Code Section 162(m) transition rule for compensation plans of corporations which are privately held and which become publicly held in an initial public offering, certain awards under the 2011 Plan will not be subject to Section 162(m) until a specified transition date, which is the earlier of:

a material modification of the 2011 Plan;

the issuance of all of the shares of our common stock reserved for issuance under the 2011 Plan; or

the first meeting of our stockholders at which members of our board of directors are to be elected that occurs after the close of the third calendar year following the calendar year in which our initial public offering occurs.

After the transition date, rights or awards granted under the 2011 Plan, other than options and SARs, will not qualify as "performance-based compensation" for purposes of Section 162(m) unless such rights or awards are granted or vest upon pre-established objective performance goals, the material terms of which are disclosed to and approved by our stockholders. Thus, after the transition date, we expect that such other rights or awards under the plan will not constitute performance-based compensation for purposes of Section 162(m).

We intend to file with the SEC a registration statement on Form S-8 covering the shares of our common stock issuable under the 2011 Plan.

2004 Equity Incentive Plan (Amended and Restated September 5, 2007)

Our board of directors adopted, and our stockholders approved, the 2004 Plan in September 2004. The 2004 Plan provides for the grant of stock options and stock purchase rights to our employees, directors and consultants of our company. As a result of our adoption of the 2011 Plan (discussed above), we will not make any further awards under the 2004 Plan; all outstanding awards will continue to be governed by their existing terms. The material terms of the 2004 Plan are summarized below.

Administration. Our compensation committee has been delegated the authority to administer the 2004 Plan and the awards granted thereunder. After the consummation of this offering, certain limitations as to the composition of the plan administrator may be imposed under Section 162(m), Section 16 of the Exchange Act, and/or stock exchange rules, as applicable. Our board of directors administers the 2004 Plan with respect to awards to independent directors.

Limitations on Awards. The aggregate number of shares of our common stock that is authorized pursuant to the 2004 Plan is 10,457,346 shares, which shares may be authorized but unissued shares or shares of reacquired common stock. Shares tendered or withheld to satisfy grant or exercise price or tax withholding obligations associated with an award granted under the 2004 Plan, shares subject to an award that is granted under the 2004 Plan that is forfeited or expires and shares of restricted stock that are repurchased by us at their original purchase price may be used again for new grants under the 2004 Plan.

Stock Options. The 2004 Plan provides for the grant of stock options, including ISOs and NSOs. ISOs, by contrast to NSOs, may provide tax deferral beyond exercise and favorable capital gains tax treatment to their holders if certain holding period and other Code requirements are satisfied. The exercise price of a stock option may not be less than 100% of the fair market value of the underlying share on the date of grant (or 110% in the case of ISOs granted to an optionee who owns stock representing more than 10% of the voting power of all classes of our common stock). A stock option may provide for "early exercise" prior to vesting in exchange for shares of restricted stock that vest on the option's vesting schedule.

In general, the maximum term of options granted is ten years. The maximum term of options granted to an optionee who owns stock representing more than 10% of the voting power of all classes of our common stock is five years. If an optionee's service relationship with us terminates other than by disability or death, the optionee may exercise the vested portion of any option in such period of time as specified in the optionee's option agreement, but prior to the date of this offering, to the extent required by applicable law, in no event will such period be less than 30 days following the termination of service. In the absence of a specified time in such option agreement, the option shall remain exercisable for three months following the optionee's termination of service with us. Shares of common stock representing any unvested portion of the option on the date of termination shall immediately cease to be issuable and shall become available for issuance under the 2004 Plan. If, after termination, the optionee does not exercise the option within the time period specified, the option shall terminate and the shares of common stock covered by such option will become available for issuance under the 2004 Plan. If an optionee's service relationship with us terminates by disability or death, the optionee may exercise the vested portion of any option in such period of time as specified in the optionee's option agreement, but prior to the date of this offering, to the extent required by applicable law, in no event will such period be less than six months following the termination of service. In the absence of a specified time in such option agreement, the option shall remain exercisable for 12 months following the optionee's termination of service with us.

Stock Purchase Rights. The 2004 Plan provides that we may issue stock purchase rights alone, in addition to or in tandem with options granted under the 2004 Plan and/or cash awards made outside the 2004 Plan. Any stock purchase rights will be governed by a restricted stock purchase agreement. We will have the right to repurchase shares of common stock acquired by the purchaser upon exercise of a stock purchase right upon the termination of the purchaser's status as an employee, director or consultant for any reason. Once the stock purchase right is exercised, the purchaser shall have rights equivalent to those of our other stockholders.

Corporate Transactions. In the event of certain significant corporate transactions, the plan administrator has the discretion to take one or more of the following actions: (a) provide for the purchase or any option, stock purchase right or restricted stock for an amount of cash equal to the

amount that could have been obtained upon the exercise of such option or stock purchase right; (b) provide that any option or stock purchase right be made exercisable; (c) provide for the assumption of any option, stock purchase right or restricted stock; (d) provide adjustments in the number and type of shares of common stock subject to outstanding options and stock purchase rights; and (e) provide for the termination of any option or stock purchase right. In addition, in the event of certain non-reciprocal transactions with our shareholders known as "equity restructurings," the plan administrator may make equitable adjustments to the 2004 Plan and outstanding awards.

Change in Control. In the event we undergo a change in control, and any surviving corporation does not assume or substitute similar awards for options, stock purchase rights or restricted stock under the 2004 Plan, the vesting of options, stock purchase rights or restricted stock held by participants in the 2004 Plan whose status as an employee, director or consultant has not terminated prior to such event shall be accelerated and made fully exercisable at least ten days prior to the closing of the event of change in control, and any options or stock purchase rights outstanding under the 2004 Plan shall terminate if not exercised prior to the closing of the event of change in control.

Plan Amendment and Termination. Our board of directors may amend or terminate the 2004 Plan at any time; however, (i) no amendment or termination may adversely affect an outstanding award without the affected participant's consent, and (ii) except in connection with certain changes in our capital structure, stockholder approval will be required for any amendment that increases the number of shares available under the 2004 Plan or extends the term of the 2004 Plan. No award may be granted pursuant to the 2004 Plan after September 7, 2014, however, we ceased granting awards under the 2004 Plan upon the adoption of the 2011 Plan.

We intend to file with the SEC a registration statement on Form S-8 covering the shares of our common stock issuable under the 2004 Plan.

Confidentiality Information, Secrecy and Invention Agreements

Each of our named executive officers has entered into a standard form agreement with respect to confidential information, secrecy and inventions. Among other things, this agreement obligates each named executive officer to refrain from disclosing any of our proprietary information received during the course of employment and, with some exceptions, to assign to us any inventions conceived or developed during the course of employment.

Limitation on Liability and Indemnification Matters

Our amended and restated certificate of incorporation and amended and restated bylaws, each to be effective upon the consummation of this offering, will provide that we will indemnify our directors, officers, employees and agents to the fullest extent permitted by the Delaware General Corporation Law, which prohibits our amended and restated certificate of incorporation from limiting the liability of our directors for the following:

any breach of the director's duty of loyalty to us or to our stockholders;

acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;

unlawful payment of dividends or unlawful stock repurchases or redemptions; and

any transaction from which the director derived an improper personal benefit.

If Delaware law is amended to authorize corporate action further eliminating or limiting the personal liability of a director, then the liability of our directors will be eliminated or limited to the fullest extent permitted by Delaware law, as so amended. Our amended and restated certificate of incorporation does not eliminate a director's duty of care and, in appropriate circumstances, equitable

remedies, such as injunctive or other forms of non-monetary relief, remain available under Delaware law. This provision also does not affect a director's responsibilities under any other laws, such as the federal securities laws or other state or federal laws. Under our amended and restated bylaws, we will also be empowered to enter into indemnification agreements with our directors, officers, employees and other agents and to purchase insurance on behalf of any person whom we are required or permitted to indemnify.

In addition to the indemnification required in our amended and restated certificate of incorporation and amended and restated bylaws, we have entered into indemnification agreements with each of our directors, and will enter into new indemnification agreements with each of our current directors, officers and certain employees before the consummation of this offering. These agreements provide for the indemnification of our directors, officers and certain employees for all reasonable expenses and liabilities incurred in connection with any action or proceeding brought against them by reason of the fact that they are or were our agents. We believe that these provisions in our amended and restated certificate of incorporation and amended and restated bylaws and indemnification agreements are necessary to attract and retain qualified persons as directors and officers. Furthermore, we have obtained director and officer liability insurance to cover liabilities our directors and officers may incur in connection with their services to us. This description of the indemnification provisions of our amended and restated certificate of incorporation, our amended and restated bylaws and our indemnification agreements is qualified in its entirety by reference to these documents, each of which is attached as an exhibit to this registration statement.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against directors and officers, even though an action, if successful, might benefit us and our stockholders. A stockholder's investment may be harmed to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act, and is, therefore, unenforceable. There is no pending litigation or proceeding naming any of our directors or officers as to which indemnification is being sought, nor are we aware of any pending or threatened litigation that may result in claims for indemnification by any director or officer.

Rule 10b5-1 Sales Plans

Our directors and executive officers may adopt written plans, known as Rule 10b5-1 plans, in which they will contract with a broker to buy or sell shares of our common stock on a periodic basis. Under a Rule 10b5-1 plan, a broker executes trades pursuant to parameters established by the director or officer when entering into the plan, without further direction from them. The director or officer may amend or terminate the plan in some circumstances. Our directors and executive officers may also buy or sell additional shares outside of a Rule 10b5-1 plan when they are not in possession of material, nonpublic information.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

We describe below each transaction, since January 1, 2008, to which we were a party or will be a party, in which:

- the amounts involved exceeded or will exceed $120,000; and

- a director, executive officer, holder or group of holders known to us to beneficially own more than 5% of any class of our voting securities or any member of their immediate family had or will have a direct or indirect material interest in the transaction.

Preferred Stock Issuances

Issuance of Series E Preferred Stock

On March 4, 2011 and June 14, 2011, we sold 3,610,873 shares and 2,407,249 shares of Series E preferred stock, respectively, at a price of $4.15412 per share for aggregate gross proceeds of approximately $25.0 million. The table below sets forth the number of shares of Series E preferred stock sold to our directors, executive officers and 5% stockholders and their affiliates. Each share of Series E Preferred Stock is convertible into one-half of one share of common stock upon consummation of the offering.

Name	Number of Shares of Series E Preferred Stock	Aggregate Purchase Price
ATMI, Inc.(1)	1,623,838	$ 6,745,617.92
CMEA Ventures VI, L.P.(2)(3)	601,811	$ 2,499,995.12
Redpoint Ventures II, L.P.(4)(5)	695,003	$ 2,887,125.87
Symyx Technologies, Inc.	198,211	$ 823,392.28
U.S. Venture Partners IX, L.P.(6)	492,010	$ 2,043,868.59

(1) George M. Scalise is one of our directors and is a member of the board of directors of ATMI, Inc.

(2) Includes 13,788 shares purchased by CMEA Ventures VI GmbH & Co. KG.

(3) Thomas R. Baruch is one of our directors and is a general partner of CMEA Ventures Management, L.P., which is the general partner of each of CMEA Venture Partners VI, L.P. and CMEA Ventures VI GmbH & Co. KG.

(4) Includes 15,708 shares purchased by Redpoint Associates II, LLC.

(5) John L. Walecka is one of our directors and is a managing member of each of Redpoint Ventures II, L.P. and Redpoint Associates II, LLC.

(6) Irwin B. Federman is one of our directors and is a managing member of Presidio Management Group IX, LLC, which is the general partner of U.S. Venture Partners IX, L.P.

Issuance of Series D Preferred Stock

On December 16, 2008, we sold 6,575,832 shares of Series D preferred stock at a price of $3.04144 per share for gross proceeds of approximately $20.0 million. The table below sets forth the number of shares of Series D preferred stock sold to our directors, executive officers and 5% stockholders and

their affiliates. Each share of Series D Preferred Stock is convertible into one-half of one share of common stock upon consummation of the offering.

Name	Number of Shares of Series D Preferred Stock	Aggregate Purchase Price
ATMI, Inc.	3,287,916	$ 9,999,999.24
CMEA Ventures VI, L.P.(1)(2)	1,014,233	$ 3,084,728.82
Redpoint Ventures II, L.P.(3)(4)	1,014,233	$ 3,084,728.82
Symyx Technologies, Inc.(5)	541,448	$ 1,646,781.61
U.S. Venture Partners IX, L.P.(6)	718,002	$ 2,183,760.01

(1) Includes 23,226 shares purchased by CMEA Ventures VI GmbH & Co. KG.

(2) Thomas R. Baruch is one of our directors and is a general partner of CMEA Ventures Management, L.P., which is the general partner of each of CMEA Ventures VI, L.P. and CMEA Ventures VI GmbH & Co. KG.

(3) Includes 22,922 shares purchased by Redpoint Associates II, LLC.

(4) John L. Walecka is one of our directors and is a managing member of each of Redpoint Ventures II, L.P. and Redpoint Associates II, LLC.

(5) Isy Goldwasser is one of our directors and, at the time of the transaction, was an executive officer of Symyx Technologies, Inc.

(6) Irwin B. Federman is one of our directors and is a managing member of Presidio Management Group IX, LLC, which is the general partner of U.S. Venture Partners IX, L.P.

Symyx

In March 2005, we entered into a Collaborative Development and License Agreement with Symyx Technologies, Inc. (Symyx). In addition, in December 2005, we entered into an Alliance Agreement (Symyx Alliance Agreement) with Symyx, and we amended the Symyx Alliance Agreement in August 2006, June 2007, August 2007, November 2007 and September 2009. Prior to the consummation of this offering, Symyx is a beneficial owner of approximately 10.9% of our common stock. Isy Goldwasser is one of our directors and, at the time of these transactions, was an executive officer of Symyx.

Under the Symyx agreements, Symyx granted us a license to certain high-throughput combinatorial patents held or licensed by them and related software to design, develop and manufacture integrated circuits, photovoltaic cells, glass coatings, light emitting diodes, organic light-emitting diodes and thin films for electronics, optical and energy applications (Fields), and we agreed to pay Symyx royalties in connection with such license. During the nine months ended September 30, 2011 and 2010 and the years ended December 31, 2010, 2009 and 2008, we recorded $1.5 million, $1.3 million, $2.0 million, $1.2 million and $1.0 million in cost of revenue, respectively, and had accrued liabilities due to Symyx of $552,000, $795,000 and $502,000 as of September 30, 2011 and December 31, 2010 and 2009, respectively. In addition, during the nine months ended September 30, 2011 and 2010 and the years ended December 31, 2010, 2009 and 2008, we purchased $172,000, $0, $6,000, $14,000 and $286,000, respectively, of fixed assets, software licenses, maintenance and consumables from Symyx.

On July 28, 2011, we entered into an agreement with Symyx, pursuant to which we agreed to use commercially reasonable efforts to allow Symyx to sell in this offering 3,968,204 shares of our common stock held by them (on an as-converted basis after giving effect to a 1-for-2 conversion ratio as a result of the 1-for-2 reverse stock split of our common stock). Pursuant to the agreement, Symyx agreed to

sell such shares and, upon consummation of this offering, including the sale of such shares, to terminate our future royalty obligations under the Symyx agreements to the extent they would have accrued after December 31, 2011. Additionally, upon consummation of this offering and such sale, Symyx would transfer to us all the patents held by them that relate to combinatorial processing. To the extent the gross proceeds (before deducting underwriting discounts and commissions and offering expenses) to Symyx from the sale of their shares in this offering are less than $67 million, we would issue Symyx a secured promissory note that would have a term of 24 months and an interest rate equal to 4%. Such note would be payable in an amount equal to the greater of $500,000 per quarter or the amount of accrued interest, with a balloon payment at maturity, if applicable. Such note would also be pre-payable by us at any time without penalty or premium, and would be secured by tangible personal property, excluding intellectual property. In addition, we have agreed to reimburse Symyx for 50% of the underwriting discounts and commissions payable by them in connection with this offering, which amount is equal to approximately $1.8 million, based on an assumed initial public offering price of $13.00 (the midpoint of the price range set forth on the cover page of this prospectus). In addition, we agreed to continue to license from them the rights they have to certain patents held by Lawrence Berkeley National Laboratory and for which we have an exclusive sub-license in the Fields and to assume certain royalty and license fee obligations to Berkeley in connection with such sub-license, not to exceed $300,000 per year.

ATMI, Inc.

In November 2006, we entered into an Alliance Agreement with ATMI, which is the beneficial owner of approximately 10.6% of our common stock outstanding as of September 30, 2011. In July 2007, we entered into a Wets Workflow Purchase Agreement with ATMI, and then in December 2008 entered into a Dry Workflow Purchase Agreement with ATMI, pursuant to which we sold to ATMI certain high productivity development tools. Under the Alliance Agreement and related ancillary agreements, we agreed to work with ATMI to conduct R&D and other activities with respect to materials and HPC technology for use in semiconductor applications. Under the agreements, ATMI pays us fees for services and both parties may provide royalties to the other for licensed technology sold to third parties. During the nine months ended September 30, 2011 and 2010 and the years ended December 31, 2010, 2009 and 2008, we recorded revenue in the amount of $11.7 million, $16.5 million, $22.1 million, $16.0 million and $13.4 million, respectively, in equipment sales, license fees and service fees and had accounts receivable in the amount of $447,000, $461,000 and $1.2 million as of September 30, 2011 and December 31, 2010 and 2009, respectively, related to these agreements. We recorded a deferred revenue balance in the amount of $5.7 million, $13.3 million and $22.8 million related to these agreements as of September 30, 2011 and December 31, 2010 and 2009, respectively.

Investor Rights Agreement

We have entered into an amended and restated investor rights agreement with certain holders of our common stock, including entities with which certain of our directors are affiliated. Following the offering, holders of 26,492,877 shares of our common stock are entitled to rights with respect to the registration of their shares under the Securities Act. For a more detailed description of these registration rights, see "Description of Capital Stock−Registration Rights." The investor rights agreement also provides for rights of first refusal. We have obtained waivers so that the rights of first refusal will not apply to, and will terminate upon consummation of, this offering.

Voting Agreement

We have entered into an amended and restated voting agreement with certain holders of our common stock and preferred stock. Upon the consummation of this offering, the amended and restated

voting agreement will terminate. For a description of the amended and restated voting agreement, see the section titled "Management−Voting Arrangements."

Right of First Refusal and Co-Sale Agreement

We have entered into an amended and restated right of first refusal and co-sale agreement with certain holders of our common stock and preferred stock. This agreement provides for rights of first refusal and co-sale relating to certain shares of our common stock in favor of the holders of certain shares of our preferred stock. Upon the consummation of this offering, the amended and restated right of first refusal and co-sale agreement will terminate.

Indemnification Agreements

We have entered into indemnification agreements with each of our directors and will enter into new indemnification agreements with each of our current directors, officers and certain employees before the completion of this offering. These agreements, among other things, will require us to indemnify each director and executive officer to the fullest extent permitted by Delaware law, including indemnification of expenses such as attorneys' fees, judgments, fines and settlement amounts incurred by the director or executive officer in any action or proceeding, including any action or proceeding by or in right of us, arising out of the person's services as a director or executive officer. See "Executive Compensation−Limitation on Liability and Indemnification Matters."

Stock Options

We have granted stock options to our executive officers and certain of our directors. For more information regarding these stock options, see the section titled "Executive Compensation−Compensation Discussion and Analysis."

Policies and Procedures for Related Party Transactions

Our board of directors intends to adopt a written related person transaction policy to set forth the policies and procedures for the review and approval or ratification of related person transactions. This policy will cover, with certain exceptions set forth in Item 404 of Regulation S-K under the Securities Act, any transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships in which we were or are to be a participant, where the amount involved exceeds $120,000 and a related person had or will have a direct or indirect material interest, including, without limitation, purchases of goods or services by or from the related person or entities in which the related person has a material interest, indebtedness, guarantees of indebtedness and employment by us of a related person.

As provided by our audit committee charter to be effective upon consummation of this offering, our audit committee will be responsible for reviewing and approving in advance any related party transaction.

PRINCIPAL AND SELLING STOCKHOLDERS

The following table sets forth information known to us about the beneficial ownership of our common stock at October 15, 2011, as adjusted to reflect the sale of the shares of common stock in this offering, by:

- each person or group of affiliated persons known to us to be the beneficial owner of more than 5% of our common stock;
- each named executive officer and each director;
- all of our executive officers and directors as a group; and
- each of the selling stockholders.

The information in the table below is calculated based on 36,451,372 shares of common stock outstanding before this offering as of October 15, 2011, which gives effect to:

- the conversion of all of our convertible preferred stock outstanding on October 15, 2011 into an aggregate of 29,230,708 shares of our common stock, which will be effective immediately prior to the consummation of this offering (reflecting a 1-for-2 conversion ratio as a result of the 1-for-2 reverse stock split of our common stock); and
- the cash exercise of warrants outstanding to purchase shares of our common stock as of October 15, 2011, resulting in the issuance of 1,313,492 shares of common stock on an as-converted basis for an aggregate exercise price of approximately $6.4 million.

Beneficial ownership "After this Offering" is calculated based on 42,256,487 shares, which is comprised of 36,451,372 shares of common stock outstanding as of October 15, 2011, plus (1) the 5,678,615 shares of common stock to be sold by us in this offering and (2) the 126,500 shares of common stock that will be issued upon the exercise of options held by certain of our executive officers in connection with their sales as part of this offering.

Beneficial ownership "After this Offering (Over-allotment Option Exercised in Full)" is calculated based on 43,665,815 shares, which is comprised of 36,451,372 shares of common stock outstanding as of October 15, 2011, plus (1) the 7,037,343 shares of common stock to be sold by us in this offering and (2) the 177,100 shares of common stock that will be issued upon the exercise of options held by certain of our executive officers in connection with their sales as part of this offering.

In computing the number of shares of common stock beneficially owned by a person, entity or group and the corresponding percentage ownership of that person, entity or group, shares of common stock underlying common stock or preferred stock options and warrants that are held by that person, entity or group and that are currently exercisable or exercisable within 60 days of October 15, 2011 are considered to be outstanding. We did not deem these shares to be outstanding, however, for the purpose of computing the percentage ownership of any other person, entity or group.

Unless otherwise noted below, the address of each beneficial owner listed on the table is c/o Intermolecular, Inc., 3011 N. First Street, San Jose, California 95134. We have determined beneficial ownership in accordance with the rules of the SEC. Except as indicated by the footnotes below, we believe, based on the information furnished to us, that the persons and entities named in the

tables below have sole voting and investment power with respect to all shares of common stock that they beneficially own, subject to applicable community property laws where applicable.

	Beneficially Owned Prior to this Offering		Beneficially Owned After this Offering			Beneficial Ownership After this Offering (Over-allotment Option Exercised in Full)		
	Number of Shares Beneficially Owned	Percentage of Beneficial Ownership	Shares Being Offered	Number of Shares Beneficially Owned	Percentage of Beneficial Ownership	Shares Being Offered	Number of Shares Beneficially Owned	Percentage of Beneficial Ownership
5% Stockholders								
ATMI, Inc.(1)	3,857,242	10.58%		3,857,242	9.13%		3,857,242	8.83%
Entities affiliated with CMEA Ventures(2)	7,548,443	20.71%		7,548,443	17.86%		7,548,443	17.29%
Entities affiliated with Redpoint Ventures(3)	7,595,039	20.84%		7,595,039	17.97%		7,595,039	17.39%
Symyx Technologies, Inc.(4)	3,968,204	10.89%	3,968,204	–	–		–	–
U.S. Venture Partners(5)	5,376,719	14.75%		5,376,719	12.72%		5,376,719	12.31%
Named Executive Officers and Directors								
David E. Lazovsky(6)	4,321,237	11.69%	226,681	4,094,556	9.57%	90,672	4,003,884	9.06%
Peter L. Eidelman(7)	490,207	1.33%	30,000	460,207	1.08%	12,000	448,207	1.02%
Tony P. Chiang, Ph.D.(8)	1,452,602	3.83%	82,500	1,370,102	3.14%	33,000	1,337,102	2.97%
J. Craig Hunter(9)	277,707	*		277,707	*		277,707	*
Sandeep Jaggi, J.D., Ph.D.(10)	88,541	*		88,541	*		88,541	*
Thomas R. Baruch(11)	7,673,443	20.98%		7,673,443	18.11%		7,673,443	17.52%
Marvin D. Burkett(12)	12,500	*		12,500	*		12,500	*
Irwin B. Federman(13)	5,376,719	14.75%		5,376,719	12.72%		5,376,719	12.31%
Isy Goldwasser(14)	–	–		–	–		–	–
Bruce M. McWilliams(15)	325,000	*		325,000	*		325,000	*
George M. Scalise(16)	190,000	*		190,000	*		190,000	*
John L. Walecka(17)	7,595,039	20.84%		7,595,039	17.97%		7,595,039	17.39%
All executive officers and directors as a group (14 persons)(18)	27,938,411	70.43%	353,181	27,585,230	60.83%	141,272	27,443,958	58.76%

* Represents beneficial ownership of less than 1%.

(1) Includes 735,000 shares to be issued upon the cash exercise of a warrant upon the consummation of this offering. The address of ATMI, Inc. is 7 Commerce Drive, Danbury, Connecticut 06810.

(2) Includes: (i) 7,375,500 shares held prior to this offering by CMEA Ventures VI, L.P. (CMEA VI) and (ii) 172,943 shares held prior to this offering by CMEA Ventures VI GmbH & Co. KG (CMEA VI GmbH). CMEA Ventures VI Management, L.P. (CMEA VI Mgmt) is the general partner of each of CMEA VI and CMEA VI GmbH. Thomas R. Baruch, David J. Collier, Karl D. Handelsman, Faysal A. Sohail and James F. Watson are the general partners of CMEA VI Mgmt and, as such, have voting and dispositive power over these shares. Each disclaims beneficial ownership of the shares held by these entities, except to the extent of any pecuniary interest therein. The address of each of the entities affiliated with CMEA Ventures is One Letterman Drive, Building C, Suite CM500, San Francisco, California 94129.

(3) Includes: (i) 7,423,391 shares held prior to this offering by Redpoint Ventures II, L.P. (RV II) and (ii) 171,648 shares held prior to this offering by Redpoint Associates II, LLC (RA II). Redpoint Ventures II, LLC (RV II LLC), a Delaware limited liability company, is the sole general partner of RV II. Voting and dispositive decisions with respect to shares held by RV II and RA II are shared by Jeffery D. Brody, R. Thomas Dyal, Timothy M. Haley, G. Bradford Jones, John L. Walecka and Geoffrey Y. Yang in their capacities as managing members of each of RV II and RA II. Each disclaims beneficial ownership of the shares held by these entities, except to the extent of any pecuniary interest therein. The address of each of the entities affiliated with Redpoint Ventures is 3000 Sand Hill Road, Building Two, Suite 290, Menlo Park, California 94025.

(4) The address of Symyx Technologies, Inc. is c/o Accelrys, Inc., 10188 Telesis Court, Suite 100, San Diego, California 92121.

(5) Includes 5,376,719 shares held prior to this offering by U.S. Venture Partners IX, L.P. (USVP IX). Presidio Management Group IX, LLC (PMG IX) is the general partner of USVP IX. Each of Irwin B. Federman, Winston S. Fu, Steven M. Kransz, David E. Liddle, Paul Matteucci, Jonathan D. Root, Christopher Rust, Casey M. Tansey and Philip M. Young are the managing members of PMG IX and may be deemed to share voting and dispositive power over the shares held by USVP IX. Such persons disclaim beneficial ownership of the shares held by USVP IX, except to the extent of any pecuniary interest therein. The address of U.S. Venture Partners is 2735 Sand Hill Road, Menlo Park, California 94025.

(6) Consists of: (i) 3,297,752 shares held by David E. Lazovsky, (ii) 225,000 shares held by The David E. Lazovsky 2010 Annuity Trust, (iii) 225,000 shares held by The Juel D. Lazovsky 2010 Annuity Trust, (iv) 45,882 shares held by The Lazovsky 2010 Irrevocable Children's Trust and (v) 527,603 shares that may be acquired pursuant to the exercise of stock options within 60 days of October 15, 2011 by Mr. Lazovsky.

(7) Consists of 490,207 shares that may be acquired pursuant to the exercise of stock options within 60 days of October 15, 2011, of which Mr. Eidelman has agreed to exercise options for and sell 30,000 shares at an exercise price of $0.20 per share in connection with this offering, as well as up to an additional 12,000 shares at an exercise price of $0.20 per share in the event the underwriters exercise their over-allotment option in full.

(8) Consists of 1,452,602 shares that may be acquired pursuant to the exercise of stock options within 60 days of October 15, 2011, of which Dr. Chiang has agreed to exercise options for and sell 82,500 shares at an exercise price of $0.10 per share in connection with this offering, as well as up to an additional 33,000 shares at an exercise price of $0.10 per share in the event the underwriters exercise their over-allotment option in full.

(9) Consists of 277,707 shares that may be acquired pursuant to the exercise of stock options within 60 days of October 15, 2011.

(10) Consists of 88,541 shares that may be acquired pursuant to the exercise of stock options within 60 days of October 15, 2011.

(11) Consists of the shares described in Note (2) above. Mr. Baruch disclaims beneficial ownership of the shares held by the entities affiliated with CMEA Ventures as descibed in Note (2) above, except to the extent of his pecuniary interest therein. Also includes 125,000 shares that may be acquired pursuant to the exercise of stock options within 60 days of October 15, 2011.

(12) Consists of 12,500 shares that may be acquired pursuant to the exercise of stock options within 60 days of October 15, 2011.

(13) Consists of the shares described in Note (5) above. Mr. Federman disclaims beneficial ownership of the shares held by the entities affiliated with U.S. Ventures as descibed in Note (5) above, except to the extent of his pecuniary interest therein.

(14) Excludes shares held by Symyx Technologies, Inc. Mr. Goldwasser has tendered his resignation from our board effective immediately prior to the effectiveness of the registration statement related to this offering.

(15) Consists of: (i) 220,000 shares held by Bruce and Astrid McWilliams 1997 Trust UAD 11/06/97 and (ii) 105,000 shares that may be acquired pursuant to the exercise of stock options within 60 days of October 15, 2011.

(16) Consists of 190,000 shares held by George M. Scalise and Dorothea Scalise TR Family Trust UA 12/28/88. Includes 15,000 shares subject to our right of repurchase, which right lapses as to 7,500 shares annually on February 25, 2012 and February 25, 2013.

(17) Consists of the shares described in Note (3) above. Mr. Walecka disclaims beneficial ownership of the shares held by the entities affiliated with Redpoint Ventures as descibed in Note (3) above, except to the extent of his pecuniary interest therein.

(18) Includes 20,520,201 shares held by entities affiliated with certain of our directors and 3,214,576 shares that may be acquired pursuant to the exercise of stock options within 60 days of October 15, 2011, of which an aggregate of 126,500 shares, or up to 177,100 shares in the event the underwriters exercise their over-allotment option in full, will be issued upon the exercise of options in connection with this offering, in each case, at the weighted average exercise price of $0.33. Includes 135,416 shares that may be acquired by John R. Behnke pursuant to the exercise of stock options within 60 days of October 15, 2011, of which Mr. Behnke has agreed to exercise options for and sell 14,000 shares at an exercise price of $2.00 per share in connection with this offering, as well as up to an additional 5,600 shares at an exercise price of $2.00 per share in the event the underwriters exercise their over-allotment option in full.

DESCRIPTION OF CAPITAL STOCK

General

Upon the consummation of this offering, we will have authorized under our amended and restated certificate of incorporation 200,000,000 shares of common stock, $0.001 par value per share, and 5,000,000 shares of preferred stock, $0.001 par value per share. The following information assumes the filing of our amended and restated certificate of incorporation and the conversion of all outstanding shares of our preferred stock into shares of common stock upon the consummation of this offering.

As of September 30, 2011, there were outstanding:

- 35,137,880 shares of our common stock held by 89 stockholders of record; and
- 8,156,105 shares issuable upon exercise of outstanding stock options, which include 126,500 shares subject to options that will be exercised in connection with this offering at a weighted average exercise price of $0.33 per share.

The following description of our capital stock and provisions of our amended and restated certificate of incorporation and amended and restated bylaws to be in effect upon the consummation of this offering is a summary and is qualified in its entirety by reference to the full copies of these documents, which have been filed with the SEC as exhibits to our registration statement, of which this prospectus forms a part. The descriptions of the common stock and preferred stock reflect changes to our capital structure that will occur upon the consummation of this offering. Currently, there is no established public trading market for our common stock.

Common Stock

Voting Rights

Each holder of our common stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders, including the election of directors. Our stockholders do not have cumulative voting rights in the election of directors. Accordingly, holders of a majority of the voting shares are able to elect all of the directors.

Dividends

Subject to preferences that may be applicable to any then outstanding preferred stock, holders of our common stock are entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of legally available funds.

Liquidation

In the event of our liquidation, dissolution or winding up, holders of our common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities and the satisfaction of any liquidation preference granted to the holders of any then outstanding shares of preferred stock.

Rights and Preferences

Holders of our common stock have no preemptive, conversion, subscription or other rights, and there are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences and privileges of the holders of our common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of preferred stock that we may designate in the future.

Preferred Stock

Upon the consummation of this offering, our board of directors will have the authority, without further action by our stockholders, to issue up to 5,000,000 shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of such series, any or all of which may be greater than the rights of common stock. The issuance of our preferred stock could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change of control of our company or other corporate action. Upon consummation of this offering, no shares of preferred stock will be outstanding, and we have no present plan to issue any shares of preferred stock.

Warrants

The following table sets forth information about outstanding warrants to purchase shares of our stock as of September 30, 2011. In connection with the consummation of this offering, the warrant to purchase shares of our Series B redeemable convertible preferred stock will convert into a warrant to purchase shares of our common stock. Certain of the warrants below (as indicated) will be exercised on a cash basis in connection with the consummation of this offering, resulting in the issuance of 1,313,492 shares of common stock.

Class of Stock	Number of Shares	Exercise Price/Share	Expiration Date
Common	75,000	$ 1.50	(1)(2)
Common	5,619	$ 1.66	(2)(3)
Common	735,000	$ 3.76	12/1/2012(2)
Common	90,000	$ 2.04	(4)
Common	822,368	$ 6.08288	(5)
Common	411,000	$ 8.30824	12/1/2012(2)
Common	2,500	$ 0.20	2/25/2013(2)
Series B preferred stock	84,373	$ 0.8889	11/4/2012(2)

(1) Expires ten days following the termination of a Campaign Proposal Agreement, dated April 26, 2007, by and between Loomis Group, Inc. and us.

(2) Warrants will be exercised on a cash basis in connection with the consummation of this offering.

(3) Expires ten days following the termination of a Standard Production Agreement, dated April 19, 2007, by and between Compass Rose Media, LLC and us.

(4) Expires on the earlier of (i) three months after Timane S.a r.l. (Timane), the holder of the warrant, ceases to be a service provider to us or the death or disability of Dr. Rabinzohn if he becomes a service provider after Timane ceases to be a service provider or (ii) June 15, 2018.

(5) Expires 120 days from the end of the Collaborative Development Program under the Collaborative Development Program Agreement by and among Toshiba Corporation, SanDisk Corporation and us, dated March 15, 2010.

Registration Rights

We are party to an investor rights agreement, which provides certain holders of our common stock the right to demand that we file a registration statement or request that their shares be covered by a registration statement that we are otherwise filing. In the event that we propose to register any of our securities under the Securities Act, either for our own account or for the account of other security holders, these holders are entitled to notice of such registration and are entitled to certain "piggyback" registration rights allowing the holder to include their common stock in such registration, subject to certain marketing and other limitations. Pursuant to the investor rights agreement, certain holders of our common stock have the right upon the earlier of six months after the consummation of this offering and March 4, 2014 to require us, on not more than two occasions, to file a registration statement under the Securities Act to register the resale of their shares of common stock with an anticipated aggregate offering price, net of underwriting discounts and commissions, of at least $5 million. We may, in certain circumstances, defer such registrations and any underwriters will have the right, subject to certain limitations, to limit the number of shares included in such registrations. Further, these holders may require us to register the resale of all or a portion of their shares on a registration statement on Form S-3 once we are eligible to use Form S-3, subject to certain conditions and limitations. In an underwritten offering, the underwriter has the right, subject to specified conditions, to limit the number of registrable securities such holders may include. Additionally, the holders of registration rights have waived their rights to include any of their shares in this offering prior to the consummation of this offering.

Anti-Takeover Provisions

Certificate of Incorporation and Bylaws to be in Effect Upon the Consummation of this Offering

Our amended and restated certificate of incorporation to be in effect upon the consummation of this offering will provide for our board of directors to be divided into three classes, with staggered three-year terms. Only one class of directors will be elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective three-year terms. Because our stockholders do not have cumulative voting rights, our stockholders holding a majority of the shares of common stock outstanding will be able to elect all of our directors. Our amended and restated certificate of incorporation and amended and restated bylaws to be effective upon the consummation of this offering will provide that all stockholder action must be effected at a duly called meeting of stockholders and not by a consent in writing, and that only our board of directors, chairman of the board, Chief Executive Officer or President (in the absence of a Chief Executive Officer) may call a special meeting of stockholders.

Our amended and restated certificate of incorporation will require a $66^2/_3\%$ stockholder vote for the amendment, repeal or modification of certain provisions of our amended and restated certificate of incorporation and amended and restated bylaws relating to the classification of our board of directors, the requirement that stockholder actions be effected at a duly called meeting, and the designated parties entitled to call a special meeting of the stockholders. The combination of the classification of our board of directors, the lack of cumulative voting and the $66^2/_3\%$ stockholder voting requirements will make it more difficult for our existing stockholders to replace our board of directors as well as for another party to obtain control of us by replacing our board of directors. Because our board of directors has the power to retain and discharge our officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management. In addition, the authorization of undesignated preferred stock makes it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change our control.

These provisions may have the effect of deterring hostile takeovers or delaying changes in our control or management. These provisions are intended to enhance the likelihood of continued stability in the composition of our board of directors and its policies and to discourage certain types of transactions that may involve an actual or threatened acquisition of us. These provisions are designed to reduce our vulnerability to an unsolicited acquisition proposal. The provisions also are intended to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and, as a consequence, they also may inhibit fluctuations in the market price of our shares that could result from actual or rumored takeover attempts. Such provisions may also have the effect of preventing changes in our management.

Section 203 of the Delaware General Corporation Law

We are subject to Section 203 of the Delaware General Corporation Law, which prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years after the date that such stockholder became an interested stockholder, with the following exceptions:

if, before such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested holder;

if, upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction began, excluding for purposes of determining the voting stock outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned (i) by persons who are directors and also officers and (ii) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or

if, on or after such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least $66^{2}/_{3}\%$ of the outstanding voting stock that is not owned by the interested stockholder.

In general, Section 203 defines business combination to include the following:

any merger or consolidation involving the corporation and the interested stockholder;

any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;

subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;

any transaction involving the corporation that has the effect of increasing the proportionate share of the stock or any class or series of the corporation beneficially owned by the interested stockholder; or

the receipt by the interested stockholder of the benefit of any loss, advances, guarantees, pledges or other financial benefits by or through the corporation.

In general, Section 203 defines an "interested stockholder" as an entity or person who, together with the person's affiliates and associates, beneficially owns, or is an affiliate or associate of the corporation and within three years prior to the time of determination of interested stockholder status did own, 15% or more of the outstanding voting stock of the corporation.

Limitations of Liability and Indemnification Matters

For an in depth discussion of liability and indemnification, please see "Executive Compensation−Limitation on Liability and Indemnification Matters."

NASDAQ Global Select Market Listing

Subject to official notice of issuance, our common stock has been approved for listing on The NASDAQ Global Select Market under the trading symbol "IMI."

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, LLC.

SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no public market for our common stock. Future sales of our common stock in the public market, or the availability of such shares for sale in the public market, could adversely affect market prices of our common stock prevailing from time to time. As described below, only a limited number of shares will be available for sale shortly after this offering due to contractual and legal restrictions on resale. Nevertheless, sales of our common stock in the public market after such restrictions lapse, or the perception that those sales may occur, could adversely affect the prevailing market price of our common stock and our ability to raise equity capital in the future.

Based on the number of shares of common stock outstanding as of September 30, 2011, upon consummation of this offering, we will have an aggregate of 42,256,487 shares of common stock outstanding. All of the shares sold by us and the selling stockholders in this offering will be freely tradable unless purchased by our affiliates.

The remaining 32,256,487 shares of common stock outstanding after this offering will be restricted as a result of securities laws or lock-up agreements as described below. Following the expiration of the lock-up period, all shares will be eligible for resale in compliance with Rule 144 or Rule 701 promulgated under the Securities Act to the extent such shares have been released from any repurchase option that we may hold. "Restricted securities" as defined under Rule 144 were issued and sold by us in reliance on exemptions from the registration requirements of the Securities Act. These shares may be sold in the public market only if registered or pursuant to an exemption from registration, such as Rule 144 or Rule 701 under the Securities Act. Subject to the lock-up agreements as described below and the provisions of Rule 144 or Rule 701, the shares of common stock outstanding after this offering (excluding the shares sold by us in this offering) will generally become available for sale in the public market beginning 180 days after the date of this prospectus.

Rule 144

Rule 144 provides an exemption from the registration and prospectus-delivery requirements of the Securities Act. This exemption is available to affiliates of ours that sell our restricted or non-restricted securities and also to non-affiliates that sell our restricted securities. Restricted securities include securities acquired from the issuer of those securities, or from an affiliate of the issuer, in a transaction or chain of transactions not involving any public offering. The shares we are selling in this offering are not restricted securities. However, all the shares we have issued before this offering are restricted securities, and they will continue to be restricted securities until they are resold pursuant to Rule 144 or pursuant to an effective registration statement.

In general, under Rule 144, as in effect on the date of this prospectus, a person who is, or at any time during the 90 days preceding the sale was, an affiliate of ours generally may sell, within any three-month period, a number of shares that does not exceed the greater of:

- 1% of the number of shares of common stock outstanding, which will equal approximately 422,600 shares immediately after this offering (or approximately 436,700 shares if the underwriters' over-allotment is exercised in full); or
- the average weekly trading volume of our common stock on the applicable stock exchange during the four calendar weeks immediately preceding the date on which a notice of sale is filed with the SEC.

In addition, sales by these persons must also satisfy requirements relating to the manner of sale, public notice, the availability of current public information about us and, in the case of restricted securities, a minimum holding period for those securities. All other persons may rely on Rule 144 to freely sell our restricted securities, so long as they satisfy both the minimum holding period

requirement and, until a one-year holding period has elapsed, the current public information requirement.

Rule 144 does not supersede our security holders' contractual obligations under the lock-up agreements described below.

Rule 701

Generally, an employee, officer, director or qualified consultant of ours who purchased shares of our common stock before the effective date of the registration statement relating to this prospectus, or who holds options as of that date, pursuant to a written compensatory plan or contract may rely on the resale provisions of Rule 701 under the Securities Act. Under Rule 701, of these persons:

- those who are not our affiliates may generally sell those securities, commencing 90 days after the effective date of the registration statement, without having to comply with the current public information and minimum holding period requirements of Rule 144; and

- those who are our affiliates may generally sell those securities under Rule 701, commencing 90 days after the effective date of the registration statement, without having to comply with Rule 144's minimum holding period restriction.

Rule 701 does not supersede our security holders' contractual obligations under the lock-up agreements described below.

Lock-up Agreements

We, along with our directors, executive officers, the selling stockholders and substantially all of our other security holders, have agreed with the underwriters that, subject to certain exceptions, for a period of 180 days following the date of this prospectus, we or they will not offer, sell, contract to sell, pledge, or otherwise dispose of, directly or indirectly, any shares of common stock or any securities convertible into or exercisable or exchangeable for shares of common stock, or enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the common stock or any securities convertible into or exercisable or exchangeable for shares of common stock, whether any of these transactions are to be settled by delivery of our common stock or other securities, in cash or otherwise, or publicly disclose the intention to effect any of these transactions. Morgan Stanley & Co. LLC and J.P. Morgan Securities LLC may, in their sole discretion, at any time without prior notice, release all or any portion of the shares from the restrictions in any such agreement.

If:

- during the last 17 days of the 180-day restricted period, we issue an earnings release or material news or a material event relating to us occurs; or

- prior to the expiration of the 180-day restricted period, we announce that we will release earnings results during the 16 day period beginning on the last day of the 180-day period or provide notification to Morgan Stanley & Co. LLC and J.P. Morgan Securities LLC of any earnings release or material news or material event that may give rise to an extension of the initial 180-day restricted period.

Registration Rights

We are party to an investor rights agreement that provides that holders of our preferred stock have the right to demand that we file a registration statement or request that their shares be covered by a registration statement that we are otherwise filing. See "Description of Capital Stock−Registration Rights." Except for shares purchased by affiliates, registration of their shares under the Securities Act would result in these shares becoming freely tradable without restriction under the Securities Act immediately upon effectiveness of the registration, subject to the expiration of the lock-up period and to the extent such shares have been released from any repurchase option that we may hold.

Stock Plans

As soon as practicable after the consummation of this offering, we intend to file a Form S-8 registration statement under the Securities Act to register shares of our common stock subject to options outstanding or reserved for issuance under our 2004 Equity Incentive Plan and our 2011 Incentive Award Plan. This registration statement will become effective immediately upon filing, and shares covered by this registration statement will thereupon be eligible for sale in the public markets, subject to Rule 144 limitations applicable to affiliates and any lock-up agreements. For a more complete discussion of our stock plans, see "Executive Compensation−Equity Incentive Plans."

MATERIAL UNITED STATES FEDERAL INCOME TAX CONSEQUENCES TO NON-U.S. HOLDERS

The following is a summary of the material United States federal income tax consequences to non-U.S. holders (as defined below) of the acquisition, ownership and disposition of our common stock issued pursuant to this offering. This discussion is not a complete analysis of all of the potential United States federal income tax consequences relating thereto, nor does it address any estate and gift tax consequences or any tax consequences arising under any state, local or foreign tax laws, or any other United States federal tax laws. This discussion is based on the Internal Revenue Code of 1986, as amended, or the Code, Treasury Regulations promulgated thereunder, judicial decisions, and published rulings and administrative pronouncements of the Internal Revenue Service, or IRS, all as in effect as of the date of this offering. These authorities may change, possibly retroactively, resulting in United States federal income tax consequences different from those discussed below. No ruling has been or will be sought from the IRS with respect to the matters discussed below, and there can be no assurance that the IRS will not take a contrary position regarding the tax consequences of the acquisition, ownership or disposition of our common stock, or that any such contrary position would not be sustained by a court.

This discussion is limited to non-U.S. holders who purchase our common stock issued pursuant to this offering and who hold our common stock as a "capital asset" within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all of the United States federal income tax consequences that may be relevant to a particular holder in light of such holder's particular circumstances. This discussion also does not consider any specific facts or circumstances that may be relevant to holders subject to special rules under the United States federal income tax laws, including, without limitation:

- U.S. expatriates or former long-term residents of the United States;
- partnerships or other pass-through entities;
- "controlled foreign corporations," "passive foreign investment companies" or corporations that accumulate earnings to avoid United States federal income tax;
- banks, insurance companies, or other financial institutions;
- brokers, dealers, or traders in securities, commodities or currencies;
- tax-exempt organizations;
- tax-qualified retirement plans; or
- persons holding our common stock as part of a hedge, straddle or other risk reduction strategy or as part of a conversion transaction or other integrated investment.

PROSPECTIVE INVESTORS ARE URGED TO CONSULT THEIR TAX ADVISORS REGARDING THE PARTICULAR UNITED STATES FEDERAL INCOME TAX CONSEQUENCES TO THEM OF ACQUIRING, OWNING AND DISPOSING OF OUR COMMON STOCK, AS WELL AS ANY TAX CONSEQUENCES ARISING UNDER ANY STATE, LOCAL OR FOREIGN TAX LAWS AND ANY OTHER UNITED STATES FEDERAL TAX LAWS.

Definition of Non-U.S. Holder

For purposes of this discussion, a non-U.S. holder is any beneficial owner of our common stock that is not a "U.S. person" or a partnership (or other entity treated as a partnership) for United States federal income tax purposes. A U.S. person is any of the following:

- an individual citizen or resident of the United States;

a corporation (or other entity treated as a corporation for United States federal income tax purposes) created or organized under the laws of the United States, any state therein or the District of Columbia;

an estate the income of which is subject to United States federal income tax regardless of its source; or

a trust (1) the administration of which is subject to the primary supervision of a United States court and all substantial decisions of which are controlled by one or more United States persons or (2) that has a valid election in effect under applicable Treasury Regulations to be treated as a U.S. person.

Distributions on Our Common Stock

If we make cash or other property distributions on our common stock, such distributions will constitute dividends for United States federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under United States federal income tax principles. Amounts not treated as dividends for United States federal income tax purposes will constitute a return of capital and will first be applied against and reduce a holder's adjusted tax basis in the common stock, but not below zero. Distributions in excess of our current and accumulated earnings and profits and in excess of a non-U.S. holder's tax basis in its shares will be treated as gain realized on the sale or other disposition of the common stock and will be treated as described under "Gain on Disposition of Our Common Stock" below.

Dividends paid to a non-U.S. holder of our common stock will be subject to United States federal withholding tax at a rate of 30% of the gross amount of the dividends, or such lower rate specified by an applicable income tax treaty. To receive the benefit of a reduced treaty rate, a non-U.S. holder must furnish to us or our paying agent a valid IRS Form W-8BEN (or applicable successor form) certifying such holder's qualification for the reduced rate. This certification must be provided to us or our paying agent prior to the payment of dividends and must be updated periodically. Non-U.S. holders that do not timely provide us or our paying agent with the required certification, but who qualify for a reduced treaty rate, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS.

If a non-U.S. holder holds our common stock in connection with the conduct of a trade or business in the United States, and dividends paid on the common stock are effectively connected with such holder's United States trade or business (and if required by an applicable income tax treaty, attributable to a permanent establishment maintained by the non-U.S. holder in the United States), the non-U.S. holder will be exempt from United States federal withholding tax. To claim the exemption, the non-U.S. holder must furnish to us or our paying agent a properly executed IRS Form W-8ECI (or applicable successor form).

Any dividends paid on our common stock that are effectively connected with a non-U.S. holder's United States trade or business (and if required by an applicable income tax treaty, attributable to a permanent establishment maintained by the non-U.S. holder in the United States) will be subject to United States federal income tax on a net income basis at the regular graduated United States federal income tax rates in much the same manner as if such holder were a resident of the United States. A non-U.S. holder that is a foreign corporation also may be subject to a branch profits tax equal to 30% (or such lower rate specified by an applicable income tax treaty) of a portion of its effectively connected earnings and profits for the taxable year, as adjusted for certain items. Non-U.S. holders are urged to consult any applicable income tax treaties that may provide for different rules.

A non-U.S. holder who claims the benefit of an applicable income tax treaty will be required to satisfy applicable certification and other requirements prior to the distribution date. Non-U.S. holders should consult their tax advisors regarding their entitlement to benefits under a relevant income tax treaty.

Gain on Disposition of Our Common Stock

A non-U.S. holder will not be subject to United States federal income tax on any gain realized upon the sale or other disposition of our common stock, unless:

- the gain is effectively connected with the non-U.S. holder's conduct of a trade or business in the United States, and if required by an applicable income tax treaty, attributable to a permanent establishment maintained by the non-U.S. holder in the United States;

- the non-U.S. holder is a nonresident alien individual present in the United States for 183 days or more during the calendar year of the disposition, and certain other requirements are met; or

- our common stock constitutes a "United States real property interest" by reason of our status as a United States real property holding corporation, or USRPHC, for United States federal income tax purposes at any time within the shorter of the five-year period preceding the disposition or the non-U.S. holder's holding period for our common stock. The determination of whether we are a USRPHC depends on the fair market value of our United States real property interests relative to the fair market value of our other trade or business assets and our foreign real property interests.

We believe we are not currently and do not anticipate becoming a USRPHC for United States federal income tax purposes. Even if we become a USRPHC, however, so long as our common stock is regularly traded on an established securities market, such common stock will be treated as U.S. real property interests only if the non-U.S. holder actually or constructively holds more than 5% of our common stock.

Gain described in the first bullet point above will be subject to United States federal income tax on a net income basis at the regular graduated United States federal income tax rates in much the same manner as if such holder were a resident of the United States. Further, non-U.S. holders that are foreign corporations also may be subject to a branch profits tax equal to 30% (or such lower rate specified by an applicable income tax treaty) of a portion of its effectively connected earnings and profits for the taxable year, as adjusted for certain items.

Gain described in the second bullet point above will be subject to United States federal income tax at a flat 30% rate (or such lower rate specified by an applicable income tax treaty), but may be offset by United States source capital losses (even though the individual is not considered a resident of the United States).

Non-U.S. holders are urged to consult any applicable income tax treaties that may provide for different rules.

Information Reporting and Backup Withholding

We must report annually to the IRS and to each non-U.S. holder the amount of distributions on our common stock paid to such holder and the amount of any tax withheld with respect to those distributions. These information reporting requirements apply even if no withholding was required because the distributions were effectively connected with the holder's conduct of a United States trade or business, or withholding was reduced or eliminated by an applicable income tax treaty. This information also may be made available under a specific treaty or agreement with the tax authorities in the country in which the non-U.S. holder resides or is established. Backup withholding may apply to

distribution payments to a non-U.S. holder of our common stock and information reporting and backup withholding may apply to the payments of the proceeds of a sale of our common stock within the United States or through certain United States-related financial intermediaries, unless the non-U.S. holder furnishes to us or our paying agent the required certification as to its non-U.S. status, such as by providing a valid IRS Form W-8BEN or IRS Form W-8ECI, or certain other requirements are met. Notwithstanding the foregoing, backup withholding may apply if either we have or our paying agent has actual knowledge, or reason to know, that the holder is a U.S. person who is not an exempt recipient.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against a non-U.S. holder's United States federal income tax liability, provided the required information is timely furnished to the IRS.

New Legislation Relating to Foreign Accounts

Newly enacted legislation may impose withholding taxes on certain types of payments made to "foreign financial institutions" (as specially defined for the purposes of these rules) and certain other non-United States entities. Under this legislation, the failure to comply with additional certification, information reporting and other specified requirements could result in withholding tax being imposed on payments of dividends and sales proceeds to foreign intermediaries and certain non-United States holders. The legislation imposes a 30% withholding tax on dividends on, or gross proceeds from the sale or other disposition of, our common stock paid to a foreign financial institution or to a foreign non-financial entity, unless (i) the foreign financial institution undertakes certain diligence and reporting obligations or (ii) the foreign non-financial entity either certifies it does not have any substantial United States owners or furnishes identifying information regarding each substantial United States owner. If the payee is a foreign financial institution, it must enter into an agreement with the United States Treasury requiring, among other things, that it undertake to identify accounts held by certain United States persons or United States-owned foreign entities, annually report certain information about such accounts and withhold 30% on payments to account holders whose actions prevent it from complying with these reporting and other requirements. The legislation will apply to payments made after December 31, 2012 (subject to certain transition rules). Prospective investors should consult their tax advisors regarding this legislation.

UNDERWRITING

Under the terms and subject to the conditions in an underwriting agreement dated the date of this prospectus, the underwriters named below, for whom Morgan Stanley & Co. LLC, J.P. Morgan Securities LLC and Barclays Capital Inc. are acting as representatives, have severally agreed to purchase, and we and the selling stockholders have agreed to sell to them, severally, the number of shares indicated below:

Name	Number of Shares
Morgan Stanley & Co. LLC	
J.P. Morgan Securities LLC	
Barclays Capital Inc.	
Pacific Crest Securities LLC	
Needham & Company, LLC	
Total	10,000,000

The underwriters and the representatives are collectively referred to as the "underwriters" and the "representatives," respectively. The underwriters are offering the shares of common stock subject to their acceptance of the shares from us and subject to prior sale. The underwriting agreement provides that the obligations of the several underwriters to pay for and accept delivery of the shares of common stock offered by this prospectus are subject to the approval of certain legal matters by their counsel and to certain other conditions. The underwriters are obligated to take and pay for all of the shares of common stock offered by this prospectus if any such shares are taken. However, the underwriters are not required to take or pay for the shares covered by the underwriters' option to purchase additional shares described below.

The underwriters initially propose to offer part of the shares of common stock directly to the public at the offering price listed on the cover page of this prospectus and part to certain dealers at a price that represents a concession not in excess of $ per share. After the initial offering of the shares of common stock, the offering price and other selling terms may from time to time be varied by the representatives.

We and certain of the selling stockholders have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus, to purchase, from time to time, in whole or in part, up to an aggregate of 1,500,000 additional shares of common stock at the public offering price listed on the cover page of this prospectus, less underwriting discounts and commissions. The underwriters may exercise this option solely for the purpose of covering over-allotments, if any, made in connection with the offering of the shares of common stock offered by this prospectus. To the extent the option is exercised, each underwriter will become obligated, subject to certain conditions, to purchase about the same percentage of the additional shares of common stock as the number listed next to the underwriter's name in the preceding table bears to the total number of shares of common stock listed next to the names of all underwriters in the preceding table.

The following table shows the per share and total public offering price, underwriting discounts and commissions, and proceeds before expenses to us and the selling stockholders. These amounts are

shown assuming both no exercise and full exercise of the underwriters' option to purchase up to an additional 1,500,000 shares of common stock.

		Total	
	Per Share	No Exercise	Full Exercise
Public offering price	$	$	$
Underwriting discounts and commissions to be paid by:			
Us	$	$	$
The selling stockholders	$	$	$
Proceeds, before expenses, to us	$	$	$
Proceeds, before expenses, to selling stockholders	$	$	$

The estimated offering expenses payable by us, exclusive of the underwriting discounts and commissions but inclusive of our obligation to reimburse Symyx for 50% of their underwriting discounts and commissions, are approximately $5.4 million.

The underwriters have informed us that they do not intend sales to discretionary accounts to exceed 5% of the total number of shares of common stock offered by them.

Subject to official notice of issuance, our common stock has been approved for listing on The NASDAQ Global Select Market under the trading symbol "IMI."

We and all directors and officers and the holders of substantially all of our outstanding stock and stock options have agreed that, without the prior written consent of Morgan Stanley & Co. LLC and J.P. Morgan Securities LLC on behalf of the underwriters, we and they will not, during the period ending 180 days after the date of this prospectus:

- offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any shares of common stock or any securities convertible into or exercisable or exchangeable for shares of common stock;

- enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the common stock; or

- file any registration statement with the SEC relating to the offering of any shares of common stock or any securities convertible into or exercisable or exchangeable for common stock,

whether any such transaction described in the first two bullet points above is to be settled by delivery of common stock or such other securities, in cash or otherwise. In addition, each such person agrees that, without the prior written consent of Morgan Stanley & Co. LLC and J.P. Morgan Securities LLC on behalf of the underwriters, it will not, during the period ending 180 days after the date of this prospectus, make any demand for, or exercise any right with respect to, the registration of any shares of common stock or any security convertible into or exercisable or exchangeable for common stock.

The restrictions described in the immediately preceding paragraph do not apply to:

- the sale of shares of common stock to the underwriters;

- the issuance of shares of common stock by us upon the exercise of an option or a warrant or the conversion of a security outstanding on the date of this prospectus of which the underwriters have been advised in writing;

- the issuance by us of stock options, restricted stock, restricted stock units or other equity awards pursuant to our equity incentive award plans described elsewhere in this prospectus;

the issuance by us of securities (and the agreement that provides for the issuance of such securities), or public announcement thereof, in full or partial consideration of one or more future acquisitions or strategic investments, or the filing of a registration statement on Form S-4 under the Securities Act related thereto; provided that the number of shares of common stock issued or issuable shall not, in the aggregate, exceed approximately 4.2 million;

transactions by any person other than us relating to shares of common stock or other securities acquired in open market transactions after the completion of the offering of the shares; provided that no filing under Section 16(a) of the Exchange Act is required or voluntarily made in connection with subsequent sales of the common stock or other securities acquired in such open market transactions;

transfers by any person other than us of shares of common stock or any security convertible into or exercisable or exchangeable for common stock (i) to an immediate family member of such person or to a trust formed for the benefit of an immediately family member, (ii) to a trust or other entity formed for estate planning purposes in which such person is a beneficiary, (iii) as a bona fide gift or by will or intestacy; (iv) if such person is a corporation, partnership or other business entity, (A) to limited partners, members or stockholders of such person or (B) to another corporation, partnership or other business entity that controls, is controlled by or is under common control with such person; or (v) if such person is a trust, to a trustor or beneficiary of the trust; provided that (i) each transferee, donee or distributee shall sign and deliver a lock-up agreement substantially in the form of the lock-up agreement signed and delivered by us and all directors and officers and the holders of substantially all of our outstanding stock and stock options and (ii) no filing under Section 16(a) of the Exchange Act is required or voluntarily made during the restricted period;

the establishment of a trading plan pursuant to Rule 10b5-1 under the Exchange Act for the transfer of shares of common stock, provided that such plan does not provide for the transfer of common stock during the restricted period and no public announcement or filing under the Exchange Act regarding the establishment of such plan is required or voluntarily made during the restricted period;

transfers by any person other than us of shares of common stock to us pursuant to a net exercise or cashless exercise by such person of any option or warrant to purchase shares of common stock or any security convertible into or exercisable or exchangeable for common stock that is outstanding as of the date of this prospectus; provided that any common ctock acquired upon the net exercise or cashless exercise of such equity awards shall be subject to the same lock up restrictions and provided further that no filing under Section 16(a) of the Exchange Act is required or voluntarily made during the restricted period; or

transfer by any person other than us of shares of common stock or any security convertible into or exercisable or exchangeable for common stock pursuant to a bona fide third party tender offer, merger, consolidation or other similar transaction made to all holders of common stock involving a change of control of us; provided that in the event that the tender offer, merger, consolidation or other such transaction is not completed, the common stock owned by such shall remain subject to the lock up restrictions.

The 180 day restricted period described in the immediately preceding paragraph will be extended if:

during the last 17 days of the 180-day restricted period, we issue an earnings release or material news or a material event relating to us occurs; or

prior to the expiration of the 180-day restricted period, we announce that we will release earnings results during the 16-day period beginning on the last day of the 180-day period or

provide notification to Morgan Stanley & Co. LLC and J.P. Morgan Securities LLC of any earnings release or material news or material event that may give rise to an extension of the initial 180-day restricted period.

in which case the restrictions described in the immediately preceding paragraph will continue to apply until the expiration of the 18 day period beginning on the issuance of the earnings release or the occurrence of the material news or material event.

Morgan Stanley & Co. LLC and J.P. Morgan Securities LLC, in their sole discretion, may release the common stock and other securities subject to the lock-up agreements described above in whole or in part at any time with or without notice. When determining whether or not to release common stock and other securities from lock-up agreements, Morgan Stanley & Co. LLC and J.P. Morgan Securities LLC will consider, among other factors, the holder's reasons for requesting the release, the number of shares of common stock and other securities for which the release is being requested and market conditions at the time. At least two business days before the effectiveness of any written consent of Morgan Stanley & Co. LLC and J.P. Morgan Securities LLC during the 180 day period, (1) Morgan Stanley & Co. LLC and J.P. Morgan Securities LLC will notify the Company of the impending release or waiver of any restriction and (2) the Company has agreed to announce the impending release or waiver by press release through a major news service at least two business days before the effective date of the release or waiver, except where the release or waiver is effected solely to permit a transfer of common stock that is not for consideration and where the transferee has agreed in writing to be bound by the terms of this agreement.

In order to facilitate the offering of the common stock, the underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the common stock. Specifically, the underwriters may sell more shares than they are obligated to purchase under the underwriting agreement, creating a short position. A short sale is covered if the short position is no greater than the number of shares available for purchase by the underwriters under the option to purchase additional shares of common stock. The underwriters can close out a covered short sale by exercising the option to purchase additional shares of common stock or purchasing shares in the open market. In determining the source of shares to close out a covered short sale, the underwriters will consider, among other things, the open market price of shares compared to the price available under the option to purchase additional shares of common stock. The underwriters may also sell shares in excess of the option to purchase additional shares of common stock, creating a naked short position. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market after pricing that could adversely affect investors who purchase in this offering. As an additional means of facilitating the offering, the underwriters may bid for, and purchase, shares of common stock in the open market to stabilize the price of the common stock. These activities may raise or maintain the market price of the common stock above independent market levels or prevent or retard a decline in the market price of the common stock. The underwriters are not required to engage in these activities and may end any of these activities at any time.

We, the selling stockholders and the underwriters have agreed to indemnify each other against certain liabilities, including liabilities under the Securities Act.

A prospectus in electronic format may be made available on websites maintained by one or more underwriters, or selling group members, if any, participating in this offering. The representatives may agree to allocate a number of shares of common stock to underwriters for sale to their online brokerage account holders. Internet distributions will be allocated by the representatives to underwriters that may make Internet distributions on the same basis as other allocations.

Other than the prospectus in electronic format, the information on any underwriter's or selling group member's website and any information contained in any other website maintained by an underwriter or selling group member is not part of the prospectus or the registration statement of which this prospectus forms a part, has not been approved and/or endorsed by us or any underwriter or selling group member in its capacity as underwriter or selling group member and should not be relied upon by investors.

Pricing of the Offering

Prior to this offering, there has been no public market for our common stock. The initial public offering price will be determined by negotiations between us and the representatives. Among the factors to be considered in determining the initial public offering price will be our future prospects and those of our industry in general, our sales, earnings and certain other financial and operating information in recent periods, and the price-earnings ratios, price-sales ratios, market prices of securities, and certain financial and operating information of companies engaged in activities similar to ours.

Selling Restrictions

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a "Relevant Member State") an offer to the public of any shares of our common stock may not be made in that Relevant Member State, except that an offer to the public in that Relevant Member State of any shares of our common stock may be made at any time under the following exemptions under the Prospectus Directive, if they have been implemented in that Relevant Member State:

(a) to any legal entity which is a qualified investor as defined in the Prospectus Directive;

(b) to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the representatives for any such offer; or

(c) in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of shares of our common stock shall result in a requirement for the publication by us or any underwriter of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer to the public" in relation to any shares of our common stock in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares of our common stock to be offered so as to enable an investor to decide to purchase any shares of our common stock, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, the expression "Prospectus Directive" means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State), and includes any relevant implementing measure in the Relevant Member State, and the expression "2010 PD Amending Directive" means Directive 2010/73/EU.

United Kingdom

Each underwriter has represented and agreed that:

(a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the FSMA) received by it in connection with the issue or sale of the shares of our common stock in circumstances in which Section 21(1) of the FSMA does not apply to us; and

(b) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares of our common stock in, from or otherwise involving the United Kingdom.

Australia

No prospectus or other disclosure document (as defined in the Corporations Act 2001 (Cth) of Australia (Corporations Act)) in relation to the shares of our common stock has been or will be lodged with the Australian Securities & Investments Commission (ASIC). This document has not been lodged with ASIC and is only directed to certain categories of exempt persons. Accordingly, if you receive this document in Australia:

(a) you confirm and warrant that you are either:

(i) a "sophisticated investor" under section 708(8)(a) or (b) of the Corporations Act;

(ii) a "sophisticated investor" under section 708(8)(c) or (d) of the Corporations Act and that you have provided an accountant's certificate to us which complies with the requirements of section 708(8)(c)(i) or (ii) of the Corporations Act and related regulations before the offer has been made;

(iii) a person associated with the company under section 708(12) of the Corporations Act; or

(iv) a "professional investor" within the meaning of section 708(11)(a) or (b) of the Corporations Act,

and to the extent that you are unable to confirm or warrant that you are an exempt sophisticated investor, associated person or professional investor under the Corporations Act any offer made to you under this document is void and incapable of acceptance; and

(b) you warrant and agree that you will not offer any of the shares of our common stock for resale in Australia within 12 months of those shares of our common stock being issued unless any such resale offer is exempt from the requirement to issue a disclosure document under section 708 of the Corporations Act.

Hong Kong

Each underwriter has represented and agreed that:

(a) it has not offered or sold and will not offer or sell in Hong Kong, by means of any document, any shares of our common stock other than (i) to "professional investors" as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong and any rules made under that Ordinance; or (ii) in other circumstances which do not result in the document being a "prospectus" as defined in the Companies Ordinance (Cap. 32) of Hong Kong or which do not constitute an offer to the public within the meaning of that Ordinance; and

(b) it has not issued or had in its possession for the purposes of issue, and will not issue or have in its possession for the purposes of issue, whether in Hong Kong or elsewhere, any advertisement, invitation or document relating to the shares of our common stock, which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to the shares of our common stock which are or are intended to be disposed of only to persons outside of Hong Kong or only to "professional investors" as defined in the Securities and Futures Ordinance and any rules made under that Ordinance.

India

This prospectus has not been and will not be registered as a prospectus with the Registrar of Companies in India or with the Securities and Exchange Board of India. This prospectus or any other material relating to these securities is for information purposes only and may not be circulated or distributed, directly or indirectly, to the public or any members of the public in India and in any event to not more than 50 persons in India. Further, persons into whose possession this prospectus comes are required to inform themselves about and to observe any such restrictions. Each prospective investor is advised to consult its advisors about the particular consequences to it of an investment in these securities. Each prospective investor is also advised that any investment in these securities by it is subject to the regulations prescribed by the Reserve Bank of India and the Foreign Exchange Management Act and any regulations framed thereunder.

Japan

No securities registration statement (SRS) has been filed under Article 4, Paragraph 1 of the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948, as amended) (FIEL) in relation to the shares of our common stock. The shares of our common stock are being offered in a private placement to "qualified institutional investors" (tekikaku-kikan-toshika) under Article 10 of the Cabinet Office Ordinance concerning Definitions provided in Article 2 of the FIEL (the Ministry of Finance Ordinance No. 14, as amended) (QIIs), under Article 2, Paragraph 3, Item 2 i of the FIEL.

Korea

The shares of our common stock may not be offered, sold and delivered directly or indirectly, or offered or sold to any person for reoffering or resale, directly or indirectly, in Korea or to any resident of Korea except pursuant to the applicable laws and regulations of Korea, including the Korea Securities and Exchange Act and the Foreign Exchange Transaction Law and the decrees and regulations thereunder. The shares of our common stock have not been registered with the Financial Services Commission of Korea for public offering in Korea. Furthermore, the shares of our common stock may not be resold to Korean residents unless the purchaser of the shares of our common stock complies with all applicable regulatory requirements (including but not limited to government approval requirements under the Foreign Exchange Transaction Law and its subordinate decrees and regulations) in connection with the purchase of the shares of our common stock.

Singapore

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares of our common stock may not be circulated or distributed, nor may the of our common stock be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Future Act, Chapter 289 of Singapore (the SFA), (ii) to a "relevant person" as defined in Section 275(2) of the SFA, or any person

pursuant to Section 275 (1A), and in accordance with the conditions, specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares of our common stock are subscribed and purchased under Section 275 of the SFA by a relevant person which is:

(a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

(b) a trust (where the trustee is not an accredited investor (as defined in Section 4A of the SFA)) whose sole whole purpose is to hold investments and each beneficiary is an accredited investor,

shares, debentures and units of shares and debentures of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferable within six months after that corporation or that trust has acquired the shares of our common stock under Section 275 of the SFA except:

(i) to an institutional investor under Section 274 of the SFA or to a relevant person (as defined in Section 275(2) of the SFA) and in accordance with the conditions, specified in Section 275 of the SFA;

(ii) (in the case of a corporation) where the transfer arises from an offer referred to in Section 275(1A) of the SFA, or (in the case of a trust) where the transfer arises from an offer that is made on terms that such rights or interests are acquired at a consideration of not less than S$200,000 (or its equivalent in a foreign currency) for each transaction, whether such amount is to be paid for in cash or by exchange of securities or other assets;

(iii) where no consideration is or will be given for the transfer; or

(iv) where the transfer is by operation of law.

By accepting this prospectus, the recipient hereof represents and warrants that he is entitled to receive it in accordance with the restrictions set forth above and agrees to be bound by limitations contained herein. Any failure to comply with these limitations may constitute a violation of law.

LEGAL MATTERS

The validity of our common stock offered by this prospectus will be passed upon for us by Latham & Watkins LLP, Menlo Park, California. Certain attorneys and investment funds affiliated with Latham & Watkins LLP collectively own shares of preferred stock, which will convert into shares of common stock upon the consummation of this offering, as well as options to purchase shares of our common stock pursuant to our 2004 Equity Incentive Plan, altogether comprising less than 1% of our shares of common stock upon the consummation of this offering. Certain legal matters in connection with this offering will be passed upon for the selling stockholders by Paul Hastings LLP, San Diego, California, for Symyx Technologies, Inc., and by Latham & Watkins LLP, Menlo Park, California, for the remaining selling stockholders. Certain legal matters in connection with this offering will be passed upon for the underwriters by Davis Polk & Wardwell LLP, Menlo Park, California.

EXPERTS

The consolidated financial statements of Intermolecular, Inc. and subsidiaries as of December 31, 2010 and 2009, and for each of the years in the three-year period ended December 31, 2010, have been included herein and in the registration statement in reliance upon the report of KPMG LLP, independent registered public accounting firm, appearing elsewhere herein, and upon the authority of said firm as experts in accounting and auditing. The audit report covering the December 31, 2010 financial statements refers to the change in the manner in which the Company accounted for convertible preferred stock.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the shares of our common stock offered hereby. This prospectus does not contain all of the information set forth in the registration statement and the exhibits and schedules thereto. Some items are omitted in accordance with the rules and regulations of the SEC. For further information with respect to us and the common stock offered hereby, we refer you to the registration statement and the exhibits and schedules filed therewith. Statements contained in this prospectus as to the contents of any contract, agreement or any other document are summaries of the material terms of this contract, agreement or other document. A copy of the registration statement, and the exhibits and schedules thereto, may be inspected without charge at the public reference facilities maintained by the SEC at 100 F Street, N.E., Washington, D.C. 20549. Copies of these materials may be obtained by writing to the Public Reference Section of the SEC at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference facility. The SEC maintains a website that contains reports, proxy and information statements and other information regarding registrants that file electronically with the SEC. The address of the SEC's website is http://www.sec.gov.

Upon consummation of this offering, we will become subject to the information and periodic reporting requirements of the Exchange Act and, in accordance therewith, will file periodic reports, proxy statements and other information with the SEC. Such periodic reports, proxy statements and other information will be available for inspection and copying at the public reference room and web site of the SEC referred to above. We maintain a website at www.intermolecular.com. You may access our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act with the SEC free of charge at our website as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. The reference to our website address does not constitute incorporation by reference of the information contained on or accessible through our website.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

INTERMOLECULAR, INC. AND SUBSIDIARIES

Consolidated Financial Statements

Years Ended December 31, 2008, 2009 and 2010 and the

Nine Months Ended September 30, 2010 and 2011

When the transaction referred to in the "Stock Split" section of note 1 of the Notes to Consolidated Financial Statements has been consummated, we will be in a position to render the following report.

/s/ KPMG LLP

Report of Independent Registered Public Accounting Firm

The Board of Directors
Intermolecular, Inc.:

We have audited the accompanying consolidated balance sheets of Intermolecular, Inc. and subsidiaries (the Company) as of December 31, 2009 and 2010, and the related consolidated statements of operations, redeemable convertible preferred stock and of stockholders' deficit and cash flows for each of the years in the three-year period ended December 31, 2010. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Intermolecular, Inc. and subsidiaries as of December 31, 2009 and 2010, and the results of their operations and their cash flows for each of the years in the three-year period ended December 31, 2010, in conformity with U.S. generally accepted accounting principles.

As discussed in note 6(a) to the consolidated financial statements, effective for all periods presented, the Company changed the manner in which it accounted for redeemable convertible preferred stock.

Mountain View, California
June 30, 2011, except as related
to note 6(a) to the consolidated
financial statements which is as
of July 28, 2011 and the "Stock Split"
section of note 1 which is as of
, 2011

INTERMOLECULAR, INC. AND SUBSIDIARIES

Consolidated Balance Sheets

(In thousands, except share and per share data)

	December 31, 2009	December 31, 2010	September 30, 2011	Pro Forma Stockholders' Equity as of September 30, 2011
				(unaudited)
ASSETS				
Current assets:				
Cash and cash equivalents	$ 20,856	$ 23,064	$ 28,761	
Short-term investments	11,764	–	750	
Accounts receivable, net of allowance for doubtful accounts of zero as of December 31, 2009 and 2010 and September 30, 2011 (unaudited)	–	3,296	6,245	
Accounts receivable, due from related parties	1,189	836	911	
Prepaid expenses and other current assets	3,442	1,868	3,702	
Total current assets	37,251	29,064	40,369	
Inventory	1,379	2,189	2,153	
Property and equipment, net	13,874	21,728	25,160	
Intangible assets, net	1,664	2,238	2,733	
Restricted cash	173	173	173	
Other assets	128	179	3,068	
Total assets	$ 54,469	$ 55,571	$ 73,656	
LIABILITIES, REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY (DEFICIT)				
Current liabilities:				
Accounts payable	$ 426	$ 2,806	$ 2,774	
Accrued payable, due to related parties	502	795	552	
Accrued liabilities	1,428	2,720	5,302	
Accrued compensation and employee benefits	1,219	2,243	2,482	
Deferred revenue, current portion	1,876	5,233	2,446	
Related party deferred revenue, current portion	15,252	10,227	5,263	
Derivative liability	–	–	3,451	
Preferred stock warrant liability	159	215	909	
Total current liabilities	20,862	24,239	23,179	
Deferred revenue, net of current portion	–	1,470	–	
Related party deferred revenue, net of current portion	7,500	3,216	625	
Deferred rent, net of current portion	99	808	1,088	
Other long-term liabilities	–	135	155	
Total liabilities	$ 28,461	29,868	25,047	
Commitments and contingencies (note 5)				
Redeemable convertible preferred stock, par value $0.001 per share–56,000,000, 56,000,000 and 59,230,199 shares authorized as of December 31, 2009 and 2010 and September 30, 2011 (unaudited); 52,443,325, 52,443,325 and 58,461,447 shares issued and outstanding as of	55,633	55,633	80,515	

December 31, 2009 and 2010 and September 30, 2011 (unaudited); liquidation preference of $80,975 as of September 30, 2011 (unaudited), actual; no shares issued and outstanding, pro forma (unaudited)				
Accumulated accretion of redeemable convertible preferred stock to redemption values	20,264	34,426	43,086	
Total redeemable convertible preferred stock	75,897	90,059	123,601	
Stockholders' equity (deficit):				
Common stock, par value $0.001 per share–85,000,000, 85,000,000 and 105,000,000 shares authorized as of December 31 and 2009 and 2010 and September 30, 2011 (unaudited); 5,532,801, 5,619,716 and 5,907,172 shares issued and outstanding as of December 31, 2009 and 2010 and September 30, 2011 (unaudited), actual; 36,451,372 shares issued and outstanding, pro forma (unaudited)	6	6	6	$ 36
Additional paid-in capital	–	–	–	130,857
Accumulated deficit	(49,895)	(64,362)	(74,998)	(74,998)
Total stockholders' (deficit) equity	(49,889)	(64,356)	(74,992)	$ 55,895
Total liabilities, redeemable convertible preferred stock and stockholders' equity (deficit)	$ 54,469	$ 55,571	$ 73,656	

See accompanying notes to consolidated financial statements.

INTERMOLECULAR, INC. AND SUBSIDIARIES

Consolidated Statement of Operations

(In thousands, except share and per share data)

	Years Ended December 31,			Nine Months Ended September 30,	
	2008	2009	2010	2010	2011
				(unaudited)	
Revenue:					
Collaborative development program and services revenue	$ 14,647	$ 14,182	$ 27,705	$ 17,992	$ 26,169
Product revenue	6,206	9,065	6,959	4,935	2,038
Licensing and royalty revenue	2,276	3,663	8,010	5,583	10,491
Total revenue	23,129	26,910	42,674	28,510	38,698
Cost of revenue:					
Cost of collaborative development program and services revenue	9,141	8,849	16,855	11,214	16,749
Cost of product revenue	3,370	3,972	3,665	2,490	710
Cost of licensing and royalty revenue	114	197	406	284	540
Total cost of revenue	12,625	13,018	20,926	13,988	17,999
Gross profit	10,504	13,892	21,748	14,522	20,699
Operating expenses:					
Research and development	11,849	10,983	13,917	10,217	14,601
Sales and marketing	3,849	3,211	4,074	3,056	3,229
General and administrative	4,300	4,867	5,761	4,250	6,156
Total operating expenses	19,998	19,061	23,752	17,523	23,986
Loss from operations	(9,494)	(5,169)	(2,004)	(3,001)	(3,287)
Other income (expense):					
Interest income, net	174	(6)	43	37	16
Other income (expense), net	6	(62)	202	71	(1,174)
Total other income (expense), net	180	(68)	245	108	(1,158)
Loss before provision for income taxes	(9,314)	(5,237)	(1,759)	(2,893)	(4,445)
Provision for income taxes	186	17	19	8	19
Net loss	(9,500)	(5,254)	(1,778)	(2,901)	(4,464)
Accretion on redeemable convertible preferred stock	(5,436)	(9,170)	(14,162)	(10,044)	(8,660)
Net loss attributable to common stockholders	$ (14,936)	$ (14,424)	$ (15,940)	$ (12,945)	$ (13,124)
Net loss per share of common stock, basic and diluted	$ (2.97)	$ (2.62)	$ (2.86)	$ (2.33)	$ (2.30)
Weighted-average number of shares used in computing net loss per share of common stock, basic and diluted	5,024,118	5,511,889	5,567,286	5,555,448	5,716,511
Pro forma net loss per share of common stock, basic and diluted			$ (0.05)		$ (0.11)
Weighted-average number of shares used in computing pro forma net loss per share of common stock, basic and diluted			32,688,160		34,885,617

Related Party Transactions

The Consolidated Statements of Operations shown above include the following related party transactions:

	Years Ended December 31,			Nine Months Ended September 30,	
	2008	2009	2010	2010	2011
				(unaudited)	
Revenue:					
Collaborative development program and services revenue	$ 6,625	$ 3,263	$ 13,382	$ 9,132	$ 8,299
Product revenue	6,206	9,065	6,047	4,935	10
Licensing and royalty revenue	2,276	3,663	6,584	4,912	7,266
Total revenue	$ 15,107	$ 15,991	$ 26,013	$ 18,979	$ 15,575
Cost of Revenue:					
Cost of collaborative development program and services revenue	625	597	1,250	815	824
Cost of product revenue	310	429	322	245	102
Cost of licensing and royalty revenue	114	197	406	284	527
Total cost of revenue	$ 1,049	$ 1,223	$ 1,978	$ 1,344	$ 1,453

See accompanying notes to consolidated financial statements.

INTERMOLECULAR, INC. AND SUBSIDIARIES

Consolidated Statements of Redeemable Convertible Preferred Stock and of Stockholders' Deficit

(In thousands, except share data)

	Redeemable Convertible Preferred Stock		Stockholders' Deficit				
			Common stock		Additional paid-in capital	Accumulated deficit	Total stockholders' deficit
	Shares	Amount	Shares	Amount			
Balances as of December 31, 2007	45,867,493	$ 41,394	5,258,742	$ 5	$ –	$ (22,711)	$ (22,706)
Issuance of common stock from option exercises	–	–	244,634	1	146	–	147
Issuance of Series D redeemable convertible preferred stock (net of issuance costs of $90)	6,575,832	19,910	–	–	–	–	–
Stock-based compensation	–	–	–	–	916	–	916
Accretion of preferred stock to redemption amount	–	5,436	–	–	(1,062)	(4,374)	(5,436)
Net loss (restated)	–	–	–	–	–	(9,500)	(9,500)
Balances as of December 31, 2008	52,443,325	66,740	5,503,376	6	–	(36,585)	(36,579)
Issuance of common stock from option exercises	–	–	29,425	–	33	–	33
Issuance cost increase of Series D redeemable convertible preferred stock increase to $103	–	(13)	–	–	–	–	–
Stock-based compensation	–	–	–	–	1,081	–	1,081
Accretion of preferred stock to redemption amount	–	9,170	–	–	(1,114)	(8,056)	(9,170)
Net loss (restated)	–	–	–	–	–	(5,254)	(5,254)
Balances as of December 31, 2009	52,443,325	75,897	5,532,801	6	–	(49,895)	(49,889)
Issuance of common stock from option exercises	–	–	86,915	–	109	–	109
Stock-based compensation	–	–	–	–	1,364	–	1,364
Accretion of preferred stock to redemption amount	–	14,162	–	–	(1,473)	(12,689)	(14,162)
Net loss	–	–	–	–	–	(1,778)	(1,778)
Balances as of December 31, 2010	52,443,325	90,059	5,619,716	6	–	(64,362)	(64,356)
Issuance of Series E redeemable convertible preferred stock (net of issuance costs of $118) (unaudited)	6,018,122	24,882	–	–	–	–	–
Issuance of common stock from option exercises (unaudited)	–	–	282,456	–	332	–	332
Stock-based compensation (unaudited)	–	–	–	–	1,803	–	1,803

Issuance of common stock warrants (unaudited)	–	–	–	–	312	–	312
Non cash issuance of common stock for services (unaudited)	–	–	5,000	–	41	–	41
Accretion of preferred stock to redemption amount (unaudited)	–	8,660	–	–	(2,488)	(6,172)	(8,660)
Net loss (unaudited)	–	–	–	–	–	(4,464)	(4,464)
Balances as of September 30, 2011 (unaudited)	58,461,447	$123,601	5,907,172	$ 6	$ –	$ (74,998)	$ (74,992)

See accompanying notes to consolidated financial statements.

INTERMOLECULAR, INC. AND SUBSIDIARIES

Consolidated Statements of Cash Flows

(In thousands)

	Years Ended December 31,			Nine Months Ended September 30,	
	2008	2009	2010	2010	2011
				(Unaudited)	
Cash flows from operating activities:					
Net loss	$ (9,500)	$ (5,254)	$ (1,778)	$ (2,901)	(4,464)
Adjustments to reconcile net loss to net cash used in operating activities:					
Depreciation and amortization	3,430	4,380	4,971	3,642	5,239
Stock-based compensation	916	1,081	1,364	1,028	1,803
Mark-to-market of preferred stock warrant liability	80	42	56	–	694
Mark-to-market of derivative liability	–	–	–	–	609
Common stock warrant charge (contra revenue)	–	–	–	–	312
Loss on disposal of property and equipment	–	–	–	–	65
Changes in operating assets and liabilities:					
Prepaid expenses and other assets	(2,683)	279	1,523	1,614	(4,682)
Inventory	(354)	778	(810)	(1,053)	36
Accounts receivable	(831)	567	(2,943)	(2,054)	(3,024)
Accounts payable	960	(561)	1,000	2,320	(468)
Accrued and other liabilities	(554)	293	2,274	1,944	5,393
Deferred revenue	1,368	476	4,827	(500)	(4,257)
Related party deferred revenue	8,149	(993)	(9,309)	(10,169)	(7,555)
Net cash provided by (used in) operating activities	981	1,088	1,175	(6,129)	(10,299)
Cash flows from investing activities:					
Purchase of short-term investments	–	(11,764)	–	(2,614)	(750)
Redemption of short-term investments	–	–	11,764	11,877	–
Purchase of property and equipment	(7,631)	(4,810)	(10,517)	(7,767)	(8,026)
Capitalized intangible assets	(531)	(134)	(323)	(223)	(472)
Net cash (used in) provided by investing activities	(8,162)	(16,708)	924	1,273	(9,248)
Cash flows from financing activities:					
Proceeds from long-term debt	3,000	–	–	–	–
Payment of long-term debt	(1,749)	(4,446)	–	–	–
Proceeds from issuance of common stock	178	33	109	62	362
Proceeds from issuance of redeemable convertible preferred stock, net of issuance costs	19,910	(13)	–	–	24,882
Net cash provided by (used in) financing activities	21,339	(4,426)	109	62	25,244
Net increase in cash and cash equivalents	14,158	(20,046)	2,208	(4,794)	5,697
Cash and cash equivalents at beginning of period	26,744	40,902	20,856	20,856	23,064
Cash and cash equivalents at end of period	$40,902	$ 20,856	$ 23,064	$ 16,062	$ 28,761
Supplemental disclosure of cash flow information:					
Cash paid for interest	$ 295	$ 113	$ –	$ –	$ –

Cash paid for income taxes, net of refunds received	$ 3	$ 279	$ (73)	$ (75)	$ 20
Noncash investing and financing activities					
Accretion of redeemable convertible preferred stock	$ 5,436	$ 9,170	$ 14,162	$ 10,044	$ 8,660
Contract intangible obtained under a derivative liability	$ –	$ –	$ –	$ –	$ 2,842

See accompanying notes to consolidated financial statements.

INTERMOLECULAR, INC. AND SUBSIDIARIES

Notes to Consolidated Financial Statements

1. The Company and Summary of Significant Accounting Policies

Business

Intermolecular, Inc. and subsidiaries (the Company) is headquartered in San Jose, California and has wholly-owned subsidiaries in Hong Kong and Japan and a wholly-owned branch in Taiwan.

The Company develops and applies high productivity combinatorial research and development technologies to accelerate research and development, innovation and time to market for the semiconductor and clean-energy industries. The Company creates high productivity combinational systems and methods, which allow the Company to perform collaborative research and development services, sell high productivity combinatorial systems, and license intellectual property to customers.

The Company's consolidated financial statements have been prepared on a going-concern basis, which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business. Since inception, the Company has incurred net losses and has accumulated a deficit of $64.4 million and $75.0 million as of December 31, 2010 and September 30, 2011, respectively.

Basis of Presentation

The Company's consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America (GAAP) and include the accounts of the Company and its consolidated subsidiaries. All intercompany transactions and balances have been eliminated during consolidation. Certain prior-year balances have been reclassified to conform to current financial statement presentation.

Stock Split

On October 26, 2011, the board of directors approved an amended and restated certificate of incorporation effecting a 1-for-2 reverse stock split of our issued and outstanding shares of common stock. The par value of the common stock will not be adjusted as a result of the reverse stock split. All issued and outstanding shares of common stock, warrants for common stock, and per share amounts contained in our financial statements have been retroactively adjusted to reflect this reverse stock split for all periods presented. Also, as a result of the reverse stock split of our common stock, the conversion ratios for all of our redeemable convertible preferred stock will be automatically adjusted such that our preferred stock would be convertible into shares of common stock at a conversion rate of 1-for-2 instead of 1-for-1. The number of issued and outstanding shares of preferred stock (and any associated warrants and per share amounts) will not be affected by the reverse stock split and therefore has not been adjusted in our financial statements. However, to the extent that our redeemable convertible preferred stock is presented on an as converted to common stock basis, all issued and outstanding shares of preferred stock, warrants for preferred stock, and per share amounts contained in our financial statements have been retroactively adjusted to reflect this reverse stock split for all periods presented. The reverse stock split will be effected prior to the effectiveness of a registration statement relating to the initial public offering of our common stock.

Immaterial Revision

The Company has revised its previously reported consolidated statement of operations for the year ended December 31, 2008 to correct the weighted average number of shares used in computing net loss

INTERMOLECULAR, INC. AND SUBSIDIARIES

Notes to Consolidated Financial Statements (Continued)

1. The Company and Summary of Significant Accounting Policies (Continued)

per share of common stock, basic and diluted, to reflect the appropriate treatment of common stock options that have been early exercised. As a result the weighted-average shares used in computing net loss per share of common stock, basic and diluted, have been revised to 5,024,118 shares from 5,358,231 shares for the year ended December 31, 2008, and the net loss per share of common stock, basic and diluted, has been revised to $2.97 from $2.79 for the year ended December 31, 2008. These revisions had no effect on previously reported consolidated balance sheets or consolidated statements of redeemable convertible preferred stock and stockholders' deficit and were not material to the Company's financial statements.

The Company has evaluated subsequent events through June 30, 2011, which is the date the annual financial statements were issued. For the issuance of financial statements for the nine months ended September 30, 2011, the unaudited interim period presented herein, such evaluation was performed through October 24, 2011.

Use of Estimates

The preparation of the accompanying consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions about future events. These estimates and the underlying assumptions affect the amounts of assets and liabilities reported, disclosures about contingent assets and liabilities, and reported amounts of revenue and expenses. Such estimates include the valuations of accounts receivable, inventories, intangible assets, capital stock and warrants and assumptions used in the calculation of income taxes and stock-based compensation, among others. These estimates and assumptions are based on management's best estimates and judgment. Management evaluates its estimates and assumptions on an ongoing basis using historical experience and other factors and adjusts such estimates and assumptions when facts and circumstances dictate. As future events and their effects cannot be determined with precision, actual results could differ significantly from these estimates.

Unaudited Interim Financial Information

The accompanying interim consolidated balance sheet as of September 30, 2011, the consolidated interim statements of operations and cash flows during the nine months ended September 30, 2010 and 2011 and the interim consolidated statement of redeemable convertible preferred stock and of stockholders' deficit during the nine months ended September 30, 2011 are unaudited. The unaudited interim consolidated financial statements have been prepared on a basis consistent with the annual consolidated financial statements and, in the opinion of management, reflect all adjustments, which include only normal recurring adjustments, necessary to present fairly the Company's consolidated financial position as of September 30, 2011 and its consolidated results of operations and cash flows during the nine months ended September 30, 2010 and 2011. The financial data and the other financial information disclosed in these notes to the consolidated financial statements related to the nine month periods are also unaudited. The consolidated results of operations during the nine months ended September 30, 2011 are not necessarily indicative of the results to be expected during the year ending December 31, 2011 or for any other future annual or interim period.

INTERMOLECULAR, INC. AND SUBSIDIARIES

Notes to Consolidated Financial Statements (Continued)

1. The Company and Summary of Significant Accounting Policies (Continued)

Unaudited Pro Forma Stockholders' Equity

The Company's Restated Certificate of Incorporation as in effect immediately prior to the consummation of this offering provides that the Company's redeemable convertible preferred stock will automatically convert to common stock in the event of an underwritten initial public offering at a price that exceeds $10.80 per share and with aggregate minimum proceeds to the Company of at least $30.0 million. Since the Company expects to raise more than $30.0 million in the offering, as well as sell its shares of common stock at a per share offering price in excess of $10.80, the Company has included the automatic conversion of its redeemable convertible preferred stock in the presentation of pro forma disclosures and balances.

The unaudited pro forma stockholders' equity as of September 30, 2011 has been prepared assuming the automatic conversion of all outstanding shares of the Company's redeemable convertible preferred stock into shares of common stock immediately before the completion of an initial public offering and the resulting reclassification of accumulated accretion of redeemable convertible preferred stock and preferred stock warrant liability to additional paid-in capital. The pro forma shares of common stock outstanding as of September 30, 2011 reflect the conversion of the redeemable convertible preferred stock into 29,230,708 shares of common stock and the conversion and subsequent exercise of preferred and certain common stock warrants into 1,313,492 shares of common stock in connection with the completion of the Company's initial public offering.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to concentration of credit risk consist of cash, cash equivalents and short-term investments. The Company's cash, cash equivalents and short-term investments consist of demand deposits, money market accounts and certificates of deposit maintained with high quality financial institutions.

Cash and Cash Equivalents

The Company considers all highly liquid investments purchased with a maturity of three months or less to be cash equivalents. The Company's cash equivalents are comprised of money market funds and are maintained with high quality financial institutions.

Short-Term Investments

The Company considers all high quality investments purchased with a maturity between three and twelve months to be short-term investments. The Company has short-term investments consisting of certificates of deposit maintained with high quality credit institutions. The carrying value of these investments approximates their fair value due to the short term of their maturities.

Restricted Cash

In connection with a lease transaction, the Company has restricted cash pledged as collateral representing a security deposit required by the lease agreement for its headquarters.

INTERMOLECULAR, INC. AND SUBSIDIARIES

Notes to Consolidated Financial Statements (Continued)

1. The Company and Summary of Significant Accounting Policies (Continued)

Inventory

Inventories are stated at the lower of cost or market value, with cost determined on an average cost basis. Inventories consist only of raw materials. Inventories in excess of salable amounts and spare parts inventories that are considered obsolete are recorded as a cost in the period in which they occur. The Company did not experience any significant inventory impairments during the three-year-period ended December 31, 2010 and the nine months ended September 30, 2011.

Property and Equipment

Property and equipment are stated at cost less accumulated depreciation and amortization. Depreciation of equipment is recognized on a straight-line basis over the estimated useful lives of the equipment, ranging from three to five years. Leasehold improvements are amortized over the shorter of the lease term or the estimated useful life of the assets. Maintenance and repairs that do not extend the life of or improve an asset are expensed in the period incurred.

Intangible Assets

Intangible assets consist of issued and pending patents and trademarks as a result of third-party legal fees incurred in the patent and trademark application processes. Intangible assets with finite lives are amortized on a straight-line basis over their useful lives, while intangible assets without finite lives are not amortized. Upon the issuance of pending patent and trademark applications, the period of benefit will be determined. Patents, upon issuance, have a maximum life of 20 years from their application filing date. Trademarks, upon issuance, have an indefinite life and will not be amortized.

Impairment of Long-Lived Assets

The Company evaluates its long-lived assets, which consist of property and equipment and intangible assets, for indicators of possible impairment when events or changes in circumstances indicate the carrying amount of an asset may not be recoverable. Impairment exists if the carrying amounts of such assets exceed the estimates of future net undiscounted cash flows expected to be generated by such assets. Should impairment exist, the impairment loss would be measured based on the excess carrying value of the asset over the estimated fair value of the asset. As of December 31, 2009 and 2010 and September 30, 2011, the Company has not recorded an impairment on any of its long-lived assets.

Revenue Recognition

The Company derives its revenue from three principal sources: collaborative development programs and other services; product sales; and technology licensing and royalty fees. Revenue is recognized when all of the following criteria are met:

Persuasive evidence of an arrangement exists;

Delivery has occurred;

The vendor's fee is fixed or determinable; and

Collectability of the fee is probable.

INTERMOLECULAR, INC. AND SUBSIDIARIES

Notes to Consolidated Financial Statements (Continued)

1. The Company and Summary of Significant Accounting Policies (Continued)

Persuasive evidence of the arrangement represents a written contract signed by both the Company and the customer, or a customer purchase order. The Company assesses whether a price is fixed or determinable by, among other things, reviewing contractual terms and conditions related to payment terms. The Company assesses collectability based on factors such as the customer's creditworthiness and past collection history, if applicable. If collection is not probable, revenue recognition is deferred until receipt of payment.

Collaborative development programs and other services−The Company enters into collaborative development programs and other research and development service agreements with customers under which the Company conducts research and development activities jointly with the customer. The agreements specify minimum levels of research effort required to be performed by the Company. Payments received under the agreements are not refundable if the research effort is not successful. The Company retains rights to certain elements of technology developed in the course of its performance, which the customer has an option to license in the future under the terms defined in the agreement. Most arrangements with customers have fixed monthly fees and requirements to provide regular reporting of research and development activities performed and revenue is recognized in a manner consistent with the fixed monthly fee. Payments received prior to performance are deferred and recognized as revenue when earned over future performance periods.

The Company considers arrangements that include specifically identified, dedicated equipment to contain a lease provision, as these arrangements convey the right to the customer to use specific equipment and provide the ability to the customer to direct the use of the equipment as well as control more than a minor amount of the output of the equipment. To date the Company has determined these arrangements to contain operating leases, with a lease term that corresponds to the term of the CDP arrangement. The amount of revenue allocated for the lease element is based on its relative fair value, but the impact of the allocation does not change the amount of revenue recognized for the total arrangement as the lease term is consistent with the CDP term.

Future minimum operating lease payments associated with CDP arrangements that contain operating leases were $5.2 million and $11.3 million as of December 31, 2010 and 2011, respectively.

Product maintenance and support services−Included in collaborative development programs and other services revenue, these services entitle customers to receive product updates and enhancements or technical support and maintenance, depending on the offering. The related revenue is recognized ratably over the period the services are delivered.

Product revenue−The Company recognizes revenue from the sale of products once delivery has occurred (title and risk of loss have passed to the customer), and customer acceptance, if required, has been achieved. The Company has determined that the software included with its equipment products is more than incidental to the product as a whole.

Licensing and royalty revenue−The Company recognizes revenue for licenses to intellectual property when earned pursuant to the terms of the agreements. Time-based license revenue is recognized ratably over the license term. Licensing and royalty revenue that becomes triggered by specific customer actions, such as exercise of a license option or by sales volume, is recognized when it occurs based on royalty reports or other information received from the licensee. Minimum and prepaid royalties and license fees are recognized ratably over the related periods.

INTERMOLECULAR, INC. AND SUBSIDIARIES

Notes to Consolidated Financial Statements (Continued)

1. The Company and Summary of Significant Accounting Policies (Continued)

Multiple-element arrangements−Certain of the Company's customer arrangements involve the delivery or performance of multiple products, services or licenses. Product sale arrangements include product maintenance and support. Collaborative development programs and other research and development services include licenses of technology and may also include sales of products.

The Company evaluates whether a delivered element has value to the customer without the remaining undelivered elements by determining whether the delivered element could be sold by the Company, or resold by the customer, on a stand-alone basis. The Company concluded that all of its products and services deliverables have value to the customers on a stand-alone basis, as all these deliverables have been or could be sold and used by customers on a stand-alone basis. Intellectual property license arrangements have value on a stand-alone basis if the customer could purchase and use them without the remaining elements of the arrangement. In addition, the Company assesses whether there is objective and reliable evidence of fair values of all undelivered elements. Fair values of such elements are determined by reference to the Company-specific objective evidence, such as pricing of these elements when sold separately, substantive renewal prices for product maintenance and support and time-based licenses, or other available evidence. If the fair value of any undelivered elements in a multiple-element arrangement cannot be objectively determined, revenue is deferred until all elements are delivered, or until fair value can objectively be determined for any remaining undelivered elements. However, in situations where the undelivered elements are software-related hardware elements, the Company will recognize revenue under a proportional performance model when fair value for the hardware elements is not available, if the undelivered hardware elements are substantially similar products. If product maintenance and support and time-based licenses are the only undelivered elements without objective and reliable evidence of fair value, all revenue from the arrangement is amortized over the longer of the product maintenance and support term or license period. For purposes of classification in the consolidated statements of operations, revenue is allocated between collaborative development programs and services revenue, product revenue and licensing and royalty revenue based on objective and reliable evidence of fair value for any elements for which it exists or based on the relative stated invoice amount for elements for which objective and reliable evidence of fair value does not exist.

In 2009, the Financial Accounting Standards Board (FASB) issued *ASU 2009-13 Revenue Recognition (Topic 605): Multiple-Deliverable Revenue Arrangements−a consensus of the FASB Emerging Issues Task Force* (ASU 2009-13) and *ASU 2009-14 Software (Topic 985): Certain Revenue Arrangements That Include Software Elements−a consensus of the FASB Emerging Issues Task Force* (ASU 2009-14). ASU 2009-13 and 14 are amendments to the accounting standards for revenue recognition to remove tangible products containing software components and nonsoftware components that function together to deliver the product's essential functionality from the scope of industry-specific software revenue recognition guidance, and also:

provide updated guidance on whether multiple deliverables exist, how the deliverables in an arrangement should be separated, and how the consideration should be allocated;

require an entity to allocate revenue in an arrangement using estimated selling prices (ESP) of deliverables if the Company does not have vendor-specific objective evidence of selling price (VSOE) or third-party evidence of selling price (TPE); and

eliminate the use of the residual method and require an entity to allocate revenue using the relative selling price method.

INTERMOLECULAR, INC. AND SUBSIDIARIES

Notes to Consolidated Financial Statements (Continued)

1. The Company and Summary of Significant Accounting Policies (Continued)

For all transactions entered into after December 31, 2010, the Company recognizes revenue using estimated selling prices of the delivered goods and services based on a hierarchy of methods contained in ASU 2009-13. The Company uses VSOE for determination of estimated selling price of elements in each arrangement if available, and since third-party evidence is not available for those elements where vendor-specific objective evidence of selling price cannot be determined, the Company evaluates factors to determine its ESP for all other elements. In multiple-element arrangements where hardware and software are sold as part of the solution, revenue is allocated to the hardware and software as a group using the relative selling prices of each of the deliverables in the arrangement based upon the aforementioned selling price hierarchy.

The adoption of ASU 2009-13 and 14 did not have any impact on the Company's consolidated financial condition, operating revenue, results of operations or cash flows for the nine month period ended September 30, 2011 as there were no multiple-element arrangements that included the sale of products originating during the period. The adoption of this standard may impact future revenue recognition for multiple-element product arrangements where product maintenance and support and time-based licenses are the only undelivered elements. The impact of adopting these provisions will result in more product revenue being recognized in earlier periods as the Company allocates revenue using the relative selling price method as opposed to recognizing all revenue from the arrangement ratably over the longer of the product maintenance and support term or license period.

Deferred Revenue

Deferred revenue represents amounts collected from customers for which the related revenue has not been recognized, because one or more of the revenue recognition criteria have not been met. The current portion of deferred revenue represents the amount that is expected to be recognized as revenue within one year from the balance sheet date.

Accounts Receivable and Allowance for Doubtful Accounts

Trade accounts receivable are recorded at invoiced amounts, which include unbilled contractually obligated amounts, net of allowances for doubtful accounts if applicable, and do not bear interest.

The allowance for doubtful accounts is based on the Company's assessment of the collectability of its customer accounts. The Company reviews the allowance by considering certain factors such as historical experience, industry data, credit quality, age of balances and current economic conditions that may affect a customers' ability to pay. The Company determined that an allowance for doubtful accounts was not required as of December 31, 2009 and 2010 or September 30, 2011 and did not recognize any charges to bad debt during the years ended December 31, 2008, 2009 and 2010 and the nine months ended September 30, 2010 and 2011.

INTERMOLECULAR, INC. AND SUBSIDIARIES

Notes to Consolidated Financial Statements (Continued)

1. The Company and Summary of Significant Accounting Policies (Continued)

Concentration of Revenue and Accounts Receivable

Significant customers are those that represent more than 10% of the Company's total revenue or accounts receivable. For each significant customer, including related parties, revenue as a percentage of total revenue and accounts receivable as a percentage of total accounts receivable are as follows:

	Revenue					Accounts Receivable		
	Years Ended December 31,			Nine Months Ended September 30,		As of December 31,		As of September 30,
	2008	2009	2010	2010	2011	2009	2010	2011
				(unaudited)				(unaudited)
Customer A	58%	59%	52%	58%	30%	100%	11%	*
Customer B	*	–	*	*	10%	–	20%	*
Customer C	*	–	*	–	*	–	12%	–
Customer D	23%	29%	20%	20%	19%	–	*	*
Customer E	–	–	*	*	10%	–	11%	*
Customer F	–	–	*	*	*	–	19%	*
Customer G	–	–	*	–	13%	–	24%	67%

* less than 10%

Cost of Revenue

Cost of revenue is primarily comprised of salaries and other personnel-related expenses for collaborative research and development scientists, engineers and development fab process operations employees. Additionally, cost of revenue includes wafers, targets, materials, program-related supplies, depreciation on equipment used in collaborative development programs and allocated facility-related costs. Product cost of revenue primarily includes cost of products sold. Cost of licensing and royalty includes related party license fees paid to Symyx.

Research and Development

Research and development expenses, including direct and allocated expenses, are expensed as incurred. Research and development costs include salaries of technical staff, consultant costs, research and development parts and prototypes, wafers, chemicals, research and development supply costs, facilities rental, utilities costs related to laboratories and offices occupied by technical staff, depreciation on equipment used by technical staff, and outside services, such as machining and third-party research and development costs.

Software Development Costs

The costs to develop software have not been capitalized as the technological feasibility of the related software is not established until substantially all product development is complete.

Income Taxes

Income taxes have been accounted for under the asset and liability method. Deferred tax assets and liabilities are determined based on the difference between the financial statement and tax bases of

INTERMOLECULAR, INC. AND SUBSIDIARIES

Notes to Consolidated Financial Statements (Continued)

1. The Company and Summary of Significant Accounting Policies (Continued)

assets and liabilities as measured by the enacted tax rates that will be in effect when these differences reverse. Accordingly, realization of any deferred tax assets is dependent on future taxable income against which these deductions, losses and credits can be utilized.

The Company assesses the likelihood that the deferred tax assets will be recovered and establishes a valuation allowance to the extent the Company believes that it is more likely than not that all or some portion of the asset will not be realized due to the inability to generate sufficient taxable income in the period and/or of the character necessary to utilize the benefit of the deferred tax asset. The Company recorded a full valuation allowance against its deferred tax assets as of December 31, 2009 and 2010 and September 30, 2011. Based on the available evidence, the Company believed it was more likely than not that it would not be able to utilize its deferred tax assets in the future. The Company intends to maintain a full valuation allowance until and if sufficient evidence exists to support all or a portion of its reversal.

The Company regularly reviews its tax positions for benefits to be realized. A tax position must be more likely than not to be sustained upon examination. The amount recognized is measured as the largest amount of benefit that is more likely than not to be realized upon settlement. The Company's policy is to recognize interest and penalties related to income tax matters as income tax expense. Through September 30, 2011, the Company did not have any interest or penalties associated with unrecognized tax benefits.

Share-Based Compensation

Compensation costs related to employee stock options granted during the years ended December 31, 2008, 2009 and 2010 and the nine months ended September 30, 2010 and 2011 are based on the fair value of the options on the date of grant, net of estimated forfeitures. The Company determines the grant date fair value of the options using the Black-Scholes option-pricing model and the related stock-based compensation expense is generally recognized on a straight-line basis over the period in which an employee is required to provide service in exchange for the options, or the vesting period of the respective options.

The Company accounts for stock options issued to nonemployees based on the fair value of the options determined using the Black-Scholes option-pricing model. The fair value of stock options granted to nonemployees is remeasured each reporting period as the stock options vest and the resulting change in value, if any, is recognized in the Company's consolidated statements of operations during the period the related services are rendered.

Comprehensive Loss

Comprehensive loss consists of the same components as net loss and therefore the Company does not separately disclose a statement of comprehensive loss.

Employee Savings Plan

The Company has a savings plan in the United States that qualifies under Section 401(k) of the Internal Revenue Code. Participating employees may contribute up to the statutory limits. The Company has not made employer contributions to the plan to date.

INTERMOLECULAR, INC. AND SUBSIDIARIES

Notes to Consolidated Financial Statements (Continued)

1. The Company and Summary of Significant Accounting Policies (Continued)

Segment Information

The Company operates in one reportable segment. The Company's chief operating decision-maker, its chief executive officer, reviews its operating results on an aggregate basis and manages its operations as a single operating segment.

Deferred Offering Costs

Deferred offering costs, consisting of legal, accounting and filing fees relating to the initial public offering, are capitalized. The deferred offering costs will be offset against initial public offering proceeds upon the effectiveness of the offering. In the event the offering is terminated, deferred offering costs will be expensed. As of September 30, 2011, the Company had capitalized $2.2 million of deferred offering costs in prepaid expenses and other current assets on the consolidated balance sheet. No amounts were deferred as of December 31, 2009 and 2010.

Fair Value of Financial Instruments

The Company measures and reports its cash equivalents, short-term investments and preferred stock warrant liabilities at fair value. Fair value is defined as the exchange price that would be received for an asset or an exit price paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. The fair value hierarchy defines a three-level valuation hierarchy for disclosure of fair value measurements as follows:

Level I−Unadjusted quoted prices in active markets for identical assets or liabilities;

Level II−Inputs other than quoted prices included within Level I that are observable, unadjusted quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the related assets or liabilities; and

Level III−Unobservable inputs that are supported by little or no market activity for the related assets or liabilities.

The categorization of a financial instrument within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement.

The Company's financial instruments consist of Level I and Level III liabilities. Level I securities include highly liquid money market funds and short-term investments. The Company does not hold any Level II instruments. Level III liabilities that are measured at fair value on a recurring basis consist of preferred stock warrant liabilities. The fair values of the outstanding preferred stock warrants are measured using the Black-Scholes option-pricing model. Inputs used to determine estimated fair value include the estimated fair value of the underlying stock at the valuation measurement date, the remaining contractual term of the warrants, risk-free interest rates, expected dividends and the expected volatility of the underlying stock.

INTERMOLECULAR, INC. AND SUBSIDIARIES

Notes to Consolidated Financial Statements (Continued)

1. The Company and Summary of Significant Accounting Policies (Continued)

Foreign Currency

The functional currency of foreign subsidiaries is the U.S. dollar and foreign currency transaction gains and losses are recorded in other income (expense), net.

Net Loss per Share of Common Stock

The Company's basic net loss per share of common stock is calculated by dividing the net loss by the weighted average number of shares of common stock outstanding for the period. The diluted net loss per share of common stock is computed by giving effect to all potential common stock equivalents outstanding for the period determined using the if-converted method. For purposes of this calculation, redeemable convertible preferred stock, options to purchase common stock, common stock subject to repurchase, warrants to purchase redeemable convertible preferred stock and warrants to purchase common stock are considered to be common stock equivalents but have been excluded from the calculation of diluted net loss per share of common stock as their effect is antidilutive.

Unaudited Pro Forma Net Loss per Share of Common Stock

The Company's Restated Certificate of Incorporation as in effect immediately prior to the consummation of this offering provides that the Company's redeemable convertible preferred stock will automatically convert to common stock in the event of an underwritten initial public offering at a price that exceeds $10.80 per share and with aggregate minimum proceeds to the Company of at least $30.0 million. Since the Company expects to raise more than $30.0 million in the offering, as well as sell its shares of common stock at a per share offering price in excess of $10.80, the Company has included the automatic conversion of its redeemable convertible preferred stock in the presentation of pro forma disclosures and balances.

In contemplation of the Company's initial public offering, the Company has presented the unaudited pro forma basic and diluted net loss per share of common stock which has been computed to give effect to the automatic conversion of the redeemable convertible preferred stock into shares of common stock on a weighted average basis and the conversion and subsequent exercise of preferred and certain common stock warrants that will be exercised in connection with the completion of the Company's initial public offering. Also, the numerator in the pro forma basic and diluted net loss per share calculation has been adjusted to remove gains and losses resulting from the accretion of redeemable convertible preferred stock and the remeasurement of the preferred stock warrant liability as if the conversion had occurred as of the beginning of the period.

Recent Accounting Pronouncements

In January 2010, the FASB issued an amendment to an accounting standard that requires new disclosures for fair value measurements and provides clarification for existing fair value disclosure requirements. The amendment will require an entity to disclose separately the amounts of significant transfers in and out of Levels I and II fair value measurements and to describe the reasons for the transfers; and to disclose information about purchases, sales, issuances and settlements separately in the reconciliation for fair value measurements using significant unobservable inputs, or Level III inputs. This amendment clarifies existing disclosure requirements for the level of disaggregation used for classes of assets and liabilities measured at fair value and requires disclosures about the valuation techniques and inputs used to measure fair value for both recurring and nonrecurring fair value

INTERMOLECULAR, INC. AND SUBSIDIARIES

Notes to Consolidated Financial Statements (Continued)

1. The Company and Summary of Significant Accounting Policies (Continued)

measurements using Level II and Level III inputs. This guidance is effective for interim and annual reporting periods beginning after December 15, 2009, except for certain Level III activity disclosure requirements that will be effective for reporting periods beginning after December 15, 2010. Accordingly, the Company adopted this amendment as of January 1, 2010, except for the additional Level III requirements, which will be adopted during the year ending December 31, 2011. The Company did not hold any Level II investments during any of the years presented and has disclosed in note 5 and note 7 the underlying inputs used to value its Level III derivative liability and preferred stock warrant liability, respectively.

2. Fair Value of Financial Instruments

The Company measures and reports its cash equivalents, short-term investments and preferred stock warrant liability at fair value. The following table sets forth the fair value of the Company's financial assets and liabilities by level within the fair value hierarchy (in thousands):

	As of December 31, 2009			
	Fair Value	Level I	Level II	Level III
Assets:				
Money market funds	$ 20,285	$ 20,285	$ –	$ –
Short-term investments	11,764	11,764	–	–
Total assets measured at fair value	$ 32,049	$ 32,049	$ –	$ –
Liabilities:				
Preferred stock warrant liability	$ 159	$ –	$ –	$ 159
Total liabilities measured at fair value	$ 159	$ –	$ –	$ 159

	As of December 31, 2010			
	Fair Value	Level I	Level II	Level III
Assets:				
Money market funds	$ 20,659	$ 20,659	$ –	$ –
Total assets measured at fair value	$ 20,659	$ 20,659	$ –	$ –
Liabilities:				
Preferred stock warrant liability	$ 215	$ –	$ –	$ 215
Total liabilities measured at fair value	$ 215	$ –	$ –	$ 215

INTERMOLECULAR, INC. AND SUBSIDIARIES

Notes to Consolidated Financial Statements (Continued)

2. Fair Value of Financial Instruments (Continued)

	As of September 30, 2011			
	Fair Value	Level I	Level II	Level III
		(unaudited)		
Assets:				
Money market funds	$ 23,673	$ 23,673	$ –	$ –
Short-term investments	750	750		
Total assets measured at fair value	$ 24,423	$ 24,423	$ –	$ –
Liabilities:				
Derivative liability	$ 3,451	$ –	$ –	$ 3,451
Preferred stock warrant liability	909	–	–	909
Total liabilities measured at fair value	$ 4,360	$ –	$ –	$ 4,360

The following table sets forth a summary of the changes in the fair value of the Company's Level III financial liabilities (in thousands):

	Years Ended December 31,			Nine Months Ended September 30,	
	2008	2009	2010	2010	2011
				(unaudited)	
Fair value–beginning of period	$ 37	$ 117	$ 159	$159	$ 215
Initial fair value of derivative liability	–	–	–	–	2,842
Mark-to-market of warrant and derivative liabilities	80	42	56	–	1,303
Fair value–end of period	$ 117	$ 159	$ 215	$159	$4,360

3. Property and Equipment

Property and equipment consist of the following (in thousands):

	As of December 31,		As of September 30,
	2009	2010	2011
			(unaudited)
Lab equipment and machinery	$ 16,128	$ 24,766	$ 32,726
Leasehold improvements	3,488	5,055	5,869
Computer equipment and software	1,842	2,314	2,863
Furniture and fixtures	79	108	132
Construction in progress	3,280	5,252	4,390
Total property and equipment	24,817	37,495	45,980
Less accumulated depreciation	(10,943)	(15,767)	(20,820)
Property and equipment, net	$ 13,874	$ 21,728	$ 25,160

INTERMOLECULAR, INC. AND SUBSIDIARIES

Notes to Consolidated Financial Statements (Continued)

3. Property and Equipment (Continued)

As of December 31, 2009 and 2010 and September 30, 2011, no property and equipment were pledged as collateral against borrowings. Amortization of leasehold improvements is included in depreciation expense. Depreciation expense was $3.4 million, $4.4 million, $5.0 million, $3.6 million and $5.2 million during the years ended December 31, 2008, 2009 and 2010 and the nine months ended September 30, 2010 and 2011, respectively.

The Company maintained dedicated equipment to support contractual customer capacity requirements as part of certain collaborative development programs that are classified as lab equipment and machinery that have a net book value of $2.1 million and $7.3 million as of December 31, 2010 and September 30, 2011, respectively.

4. Intangible Assets

Intangible assets consist of the following (in thousands):

	As of December 31,		As of September 30,
	2009	2010	2011
			(unaudited)
Patents issued	$ 121	$ 209	$ 497
Patents pending	1,514	2,009	2,233
Trademarks	38	38	38
Total intangible assets	1,673	2,256	2,768
Less patent amortization	(9)	(18)	(35)
Intangible assets, net	$ 1,664	$ 2,238	$ 2,733

Amortization commences upon patent issuance. The useful life of the patents, once approved, will not exceed 20 years, and will depend on the nature of the patent. The average estimated amortization period of our current portfolio is 17 years. Amortization expense during the years ended December 31, 2008, 2009, 2010 and the nine months ended September 30, 2010 and 2011 was $4,000, $5,000, $9,000, $6,000 and $17,000, respectively.

Estimated future aggregate annual amortization expense for both issued and pending intangible assets is as follows (in thousands):

As of December 31:	
2011	$ 73
2012	123
2013	123
2014	123
2015	123
Thereafter	1,635
Total	$ 2,200

INTERMOLECULAR, INC. AND SUBSIDIARIES
Notes to Consolidated Financial Statements (Continued)

5. Commitments and Contingencies

Leases

The Company entered into an operating lease agreement in July 2005 for its facility in California with a lease term that expires on October 31, 2011. During the year ended December 31, 2008, the space under the operating lease was expanded to support the Company's operating needs. During the year ended December 31, 2010, the Company relocated its operations to a new facility and, accordingly, entered into an operating lease agreement in May 2010 that expires in May 2015. Rent expense for both facilities, which is being recognized on a straight-line basis over the lease term, was approximately $725,000, $797,000, $1.6 million, $1.1 million and $1.6 million during the years ended December 31, 2008, 2009 and 2010 and the nine months ended September 30, 2010 and 2011, respectively. Future commitments and obligations under the operating leases to be satisfied as they become due over the term are as follows (in thousands):

As of December 31:	
The years ending December 31,	
2011	$ 1,550
2012	1,573
2013	1,657
2014	1,707
2015	728
Total	$ 7,215

As of September 30 (unaudited):	
Three month period ending December 31, 2011	$ 415
The years ending December 31,	
2012	1,573
2013	1,657
2014	1,707
2015	728
Total	$ 6,080

During 2010 and the nine months ended September 30, 2011, the Company made regular payments of $0.9 million and $1.1 million, respectively, on the operating leases.

Equipment Loan

On June 1, 2007, the Company borrowed $3.8 million pursuant to the terms of a loan and security agreement with a bank that was signed in 2005. In May 2008, the Company borrowed an additional $3.0 million under this loan and security agreement. The loan amounts were payable over a 36-month term ending June 1, 2010 and May 1, 2011, respectively. The outstanding loan balances under this loan and security agreement were paid off in February 2009. Effective January 27, 2010 and March 26, 2010, the Company amended the terms of the loan and security agreement to extend the availability of additional loan advances through December 31, 2011. Any additional borrowing will be payable in 36 monthly installments ending no later than December 1, 2013. These loans are secured by all company assets, excluding intellectual property. The amount borrowed must be requested in no less

INTERMOLECULAR, INC. AND SUBSIDIARIES

Notes to Consolidated Financial Statements (Continued)

5. Commitments and Contingencies (Continued)

than $500,000 increments. The loan amount must be 100% first position secured by eligible equipment purchased within 270 days before the equipment advance. The loan advance allows for a look back for eligible equipment purchased, as long as the loan request is made within 90 days of the execution of the loan and security agreement. Equipment advances will accrue interest at a 5.50% annual rate.

In connection with the original loan and security agreement, the Company issued a warrant to purchase Series B redeemable convertible preferred stock for 2.5% of the value of the loan facility. As of December 31, 2009 and 2010, there were no outstanding balances under the equipment loans and the Company was compliant with all loan covenants, which primarily consist of monthly and annual financial statement reporting and the maintenance of certain minimum financial ratios. As of December 31, 2009 and 2010, there was $10.0 million available for advances under this loan and security agreement.

On September 15, 2011, the Company terminated its loan and security agreement. There were no balances outstanding under the loan and security agreement and the Company was compliant with all covenants.

Symyx Asset Purchase

On July 28, 2011, the Company entered into an agreement with Symyx Technologies, Inc., a related party (Symyx), pursuant to which the Company agreed to use commercially reasonable efforts to allow Symyx to sell in an initial public offering shares of the Company's common stock held by them. Pursuant to the agreement, Symyx agreed to sell such shares and, upon consummation of the initial public offering, including the sale of such shares, to terminate the Company's future royalty obligations under an existing license agreement with Symyx to the extent they would have accrued after December 31, 2011. Additionally, upon consummation of the initial public offering and such sale, Symyx would transfer to the Company all patents held by them that relate to combinatorial processing. To the extent the gross proceeds (before deducting underwriting discounts and commissions and offering expenses) to Symyx from the sale of their shares in an initial public offering are less than $67.0 million, the Company would issue Symyx a secured promissory note that would have a term of 24 months and an interest rate equal to 4%. Such note would be payable in an amount equal to the greater of $500,000 per quarter or the amount of accrued interest, with a balloon payment at maturity, if applicable. Such note would also be pre-payable by the Company at any time without penalty or premium, and would be secured by tangible personal property, excluding intellectual property. In addition, the Company has agreed to reimburse Symyx for 50% of the underwriting discounts and commissions payable by them in connection with this offering. In the event that an initial public offering does not occur by July 1, 2012, the purchase agreement with Symyx expires and the royalty obligation continues under its original terms.

In connection with entering into the agreement the Company recorded a derivative liability representing the value of the guaranteed return to Symyx and reimbursement of 50% of the underwriting discounts and commissions payable in connection with the offering. The Company recorded the liability at inception because it has effectively issued a written option that requires the Company to settle with a cash payment to Symyx. The initial fair value of the contract as of the date of the agreement was determined using a hybrid model utilizing a probability-weighted expected return model and a Monte Carlo Simulation model to be $2.8 million, which incorporates parameters such as the volatility of the Company's stock price, the time value of the feature, the strike price on the guarantee, the likelihood of an initial public offering, and the obligation to pay a portion of Symyx's

INTERMOLECULAR, INC. AND SUBSIDIARIES

Notes to Consolidated Financial Statements (Continued)

5. Commitments and Contingencies (Continued)

selling costs. Between July 28, 2011 and the date of the offering, the Company will adjust the fair value of the derivative liability to market value, with any change in the market value being recorded in other income (expense), net, in the Company's statement of operations. On July 28, 2011, the Company recorded an intangible asset in the amount of $2.8 million in other assets that represents the value of the intangible assets that will be transferred by Symyx to the Company upon the consummation of the offering.

As of September 30, 2011, the derivative has a market value of $3.4 million and during the nine months ended September 30, 2011, the Company recorded a charge in other income (expense), net in the amount of $0.6 million.

Litigation

The Company is subject to various claims arising in the ordinary course of business. Although no assurance may be given, the Company believes that it is not presently a party to any litigation of which the outcome, if determined adversely, would individually or in the aggregate be reasonably expected to have a material adverse effect on the business, operating results, cash flows or financial position of the Company.

Third parties and others may claim in the future that the Company has infringed their past, current or future intellectual property rights. These claims, whether meritorious or not, could be time-consuming, result in costly litigation, require expensive changes in the Company's methods of doing business or require the Company to enter into costly royalty or licensing agreements, if available. As a result, these claims could harm the Company's business, operating results, cash flows and financial position.

Indemnification

From time to time, the Company agrees to indemnify certain customers against certain third-party liabilities, including liability if its products infringe a third party's intellectual property rights. The indemnification is typically limited to no more than the amount paid by the customer. As of December 31, 2010 and September 30, 2011, the Company was not subject to any material pending intellectual property-related litigation for which it is indemnifying a customer.

6. Redeemable Convertible Preferred Stock and Stockholders' Deficit

(a) Redeemable Convertible Preferred Stock

During the year ended December 31, 2008, the Company issued 6,575,832 shares of Series D at $3.04 per share, resulting in net cash proceeds of $19.9 million.

During the nine months ended September 30, 2011, the Company issued 6,018,122 shares of Series E at $4.15 per share, resulting in net cash proceeds of $24.9 million.

INTERMOLECULAR, INC. AND SUBSIDIARIES

Notes to Consolidated Financial Statements (Continued)

6. Redeemable Convertible Preferred Stock and Stockholders' Deficit (Continued)

The following tables are in thousands, except share data:

	As of December 31, 2009		
	Shares Authorized	Shares Issued and Outstanding	Aggregate Liquidation Preference
Series A	8,399,831	8,399,831	$ 800
Series B	22,949,711	22,780,964	10,125
Series C	14,686,698	14,686,698	25,050
Series D	9,963,760	6,575,832	20,000
Total	56,000,000	52,443,325	$ 55,975

	As of December 31, 2010		
	Shares Authorized	Shares Issued and Outstanding	Aggregate Liquidation Preference
Series A	8,399,831	8,399,831	$ 800
Series B	22,949,711	22,780,964	10,125
Series C	14,686,698	14,686,698	25,050
Series D	9,963,760	6,575,832	20,000
Total	56,000,000	52,443,325	$ 55,975

	As of September 30, 2011		
	Shares Authorized	Shares Issued and Outstanding	Aggregate Liquidation Preference
			(unaudited)
Series A	8,399,831	8,399,831	$ 800
Series B	22,949,711	22,780,964	10,125
Series C	14,686,698	14,686,698	25,050
Series D	6,575,832	6,575,832	20,000
Series E	6,618,127	6,018,122	25,000
Total	59,230,199	58,461,447	$ 80,975

Significant terms of Series A, B, C, D and E redeemable convertible preferred stock are as follows:

Conversion Features

Holders of Series A, B, C, D and E redeemable convertible preferred stock have the option to convert each share into common stock at any time at a conversion rate of 1-for-2. The preferred stock will automatically convert into shares of common stock upon an affirmative vote of more than 60% of the preferred stock voting together or an initial public offering with a share price of not less than $10.80 and with net proceeds of not less than $30.0 million.

INTERMOLECULAR, INC. AND SUBSIDIARIES

Notes to Consolidated Financial Statements (Continued)

6. Redeemable Convertible Preferred Stock and Stockholders' Deficit (Continued)

Voting Rights

Each share of Series A, B, C, D and E redeemable convertible preferred stock has voting rights equivalent to the number of shares of common stock into which it is convertible. In regards to the selection of the Company's board of directors, the Series A holders will elect two directors, the Series B holders will elect one director, the Series C holders will elect one director and the common stock holders will elect one director. Any remaining directors will be elected by the common and preferred stock holders voting together.

Dividend Rights

The holders of Series A, B, C, D and E redeemable convertible preferred stock are entitled to receive annual noncumulative dividends at a rate of $0.01, $0.04, $0.15, $0.24 and $0.33 per share, respectively, as adjusted for stock splits, stock dividends, reverse stock splits, stock combinations, reorganizations, and the like, out of any assets available when and if declared by the board of directors. No dividends have been declared to date.

Annual noncumulative cash dividends of $0.01, $0.04, $0.15, $0.24 and $0.33 per share of Series A, B, C, D and E redeemable convertible preferred stock, respectively, multiplied by the number of years that dividends were not declared and paid since issuance, must be paid prior to the payment of any dividends on the common stock, if and when declared by the board of directors.

Liquidation Preferences

In the event of liquidation, dissolution or winding up of the affairs of the Company, the holders of Series A, B, C, D and E redeemable convertible preferred stock are entitled to receive $0.10, $0.44, $1.88, $3.04 and $4.15 per share, respectively, and any declared but unpaid dividends prior to any other distributions. In the event of insufficient assets to pay the holders of Series A, B, C, D and E, the remaining assets will be distributed proportionally to all holders of redeemable convertible preferred stock. Any remaining assets after distribution to the holders of Series A, B, C, D and E redeemable convertible preferred stock will be distributed pro rata among all stockholders on an as converted basis until the holders of the redeemable convertible preferred stock receive a return of three times their original purchase price. Any remaining assets will be distributed pro rata among the common stockholders.

Redemption Rights

Series A, B, C, D and E redeemable convertible preferred stock are redeemable at any time after June 14, 2016 upon the affirmative vote or written consent of the holders of greater than 60% of the then-outstanding shares of redeemable convertible preferred stock (the Redemption Request). Upon receiving a Redemption Request, the Company will redeem these shares from any source of funds legally available on each of the respective Redemption Dates (as defined below) in three equal annual installments of one-third of the outstanding shares of redeemable convertible preferred stock to be redeemed. The redemption date for each annual redemption of shares (the Redemption Date) will be (i) for the first such installment, a date determined by the Company falling not later than 60 days after the date the Company received a Redemption Request and (ii) for the second and third installments, on the first and second anniversary of the first Redemption Date. The shares of preferred stock not redeemed as of a certain Redemption Date

INTERMOLECULAR, INC. AND SUBSIDIARIES

Notes to Consolidated Financial Statements (Continued)

6. Redeemable Convertible Preferred Stock and Stockholders' Deficit (Continued)

will remain outstanding and will be entitled to all the rights and preferences provided to holders of the redeemable convertible preferred stock.

The redemption price of the redeemable convertible preferred stock will be the greater of the original purchase price as adjusted for any stock splits, stock dividends, reverse stock splits, stock combinations, recapitalizations, and similar events, plus any declared but unpaid dividends, or the fair market value of each respective Series as determined by the board of directors with the approval of at least 60% of the directors then serving on the board on the date of Redemption Request. The original purchase price was $800,000, $10.1 million, $25.1 million, $20.0 million and $25.0 million for Series A, B, C, D and E, respectively.

Adoption of Classification and Measurement of Redeemable Securities Accounting Standard

In connection with the Company's decision to file a registration statement with the Securities Exchange Commission for an initial public offering of the Company's common stock, the Company adopted the provisions of ASC Topic 480-10-S99-3A, *Classification and Measurement of Redeemable Securities*

The shares contain redemption features that are not solely within the Company's control. Accordingly, all shares of redeemable convertible preferred stock, previously classified in stockholders' (deficit) equity, have been classified as temporary equity rather than as a component of stockholders' (deficit) equity in the Company's consolidated balance sheets for all periods presented.

The carrying value of redeemable convertible preferred stock was recorded at its fair value at the date of issue. In accordance with the standard, the Company has accounted for changes in the redemption value over the period from the date of issuance to the earliest redemption date using the interest method to a value equal to the fair value, as determined by the Company using the most recent round of redeemable convertible preferred stock financing as an estimate for the fair value, of its redeemable convertible preferred stock over the period from the date of issuance to the earliest redemption date on June 14, 2016. As the Company did not have a round of redeemable preferred stock financing around December 31, 2009 or December 31, 2010, the Company determined the fair value by selecting a value that approximated an increase in value on a consistent basis between the Series D round (December 31, 2008) and the Series E round (June 14, 2011). The increases in the redemption value increases the value of the redeemable convertible preferred stock and decreases the additional paid-in capital and accumulated deficit balances. There was no impact of adopting this accounting principle on the consolidated statements of cash flows and the impact on the consolidated statement of operations was an increase in the net loss attributable to common stockholders as a result of the accounting for the change in the redemption value.

INTERMOLECULAR, INC. AND SUBSIDIARIES

Notes to Consolidated Financial Statements (Continued)

6. Redeemable Convertible Preferred Stock and Stockholders' Deficit (Continued)

Estimated Redemption Values

The redemption values by security that the Company is using to accrete to are as follows (in thousands):

	December 31,		September 30,
	2009	2010	2011
			(unaudited)
Redeemable convertible preferred stock series:			
A	$ 28,765	$ 33,067	$ 47,665
B	78,013	89,680	129,272
C	50,295	57,816	83,340
D	22,519	25,887	37,315
E	–	–	34,150

In evaluating the fair value of preferred stock and the related preferred stock accretion for the three and nine months ended September 30, 2011 the Company considered the potential impact of the appreciation on the fair value of common stock between the June 14, 2011 Series E second closing and September 30, 2011, as well as the convergence of the preferred stock and common stock prices as the likelihood of an IPO increases. The Company determined that following the filing of its registration statement on Form S-1 on July 29, 2011 a redemption was no longer probable given the decrease in the likelihood of a redemption occurring. Accordingly, effective July 29, 2011 the Company is no longer accreting its redeemable convertible preferred stock to its redemption value.

(b) Common Stock

As of December 31, 2009 and 2010 and September 30, 2011, the Company had reserved shares of common stock, on an as if converted basis, for issuance as follows:

	As of December 31,		As of
	2009	2010	September 30, 2011
			(unaudited)
Issuances under stock option plan	7,532,571	7,445,656	8,390,683
Conversion of redeemable convertible preferred stock	26,221,649	26,221,649	29,230,708
Issuances upon exercise of warrants	989,992	1,812,360	2,225,860
	34,744,212	35,479,655	39,847,251

7. Warrants

Preferred Stock Warrants

In connection with the loan and security agreement obtained in November 2005, the Company issued a warrant to purchase 168,747 shares of Series B redeemable convertible preferred stock at a price of $0.44 per share. The Series B warrants are exercisable immediately and expire in November 2012. The fair value of the warrant on the date of issuance was $37,000 which is being recognized as interest expense over the term of the loan and security agreement. The fair value of the warrant was

INTERMOLECULAR, INC. AND SUBSIDIARIES
Notes to Consolidated Financial Statements (Continued)

7. Warrants (Continued)

determined using the Black-Scholes option-pricing model and is remeasured at each reporting period. As of December 31, 2009, 2010 and September 30, 2011, the Company recorded a warrant liability of $159,000, $215,000 and $909,000 on the consolidated balance sheets. During the years ended December 31, 2008, 2009 and 2010 and the nine months ended September 30, 2010 and 2011, the remeasurement of the warrant liability resulted in the recognition of remeasurement gains and losses of $80,000, $42,000, $56,000, $0 and $694,000, respectively, which was recorded as other income (expense), net on the consolidated statement of operations.

The Company determined the fair value of the Series B warrants at the end of each reporting period using the Black-Scholes option-pricing model with the following assumptions:

	Years Ended December 31,			Nine Months Ended September 30,	
	2008	2009	2010	2010	2011
				(unaudited)	
Contractual term (in years)	4.0	3.0	2.0	2.3	1.1
Risk-free interest rate	1.3%	1.7%	0.6%	0.7%	0.1%
Expected volatility	65%	60%	55%	55%	49%
Expected dividend rate	0%	0%	0%	0%	0%

Common Stock Warrants

During the year ended December 31, 2007, the Company issued warrants to purchase 817,500 shares of common stock in connection with certain collaboration agreements with exercise prices ranging from $1.50 to $3.76 per share and five year terms. Of these warrants, 735,000 were granted to a related party and were exercisable immediately while the remaining warrants vest over periods ranging from two to four years. During the years ended December 31, 2008, 2009 and 2010 and the nine months ended September 30, 2010 and 2011, the Company recognized expenses related to the issuances and vesting of these warrants in the amount of $43,000, $7,000, $1,000, $1,000 and $0, respectively. As of December 31, 2009 and 2010 and September 30, 2011, 815,619 of these warrants to purchase shares of common stock were still outstanding.

During the year ended December 31, 2008, the Company issued warrants to purchase 90,000 shares of common stock for consulting services with an exercise price of $2.04 per share and a 10 year term. These warrants vest over four years. During the years ended December 31, 2008, 2009 and 2010 and the nine months ended September 30, 2010 and 2011, the Company recognized expenses related to the issuances and vesting of these warrants in the amount of $41,000, $51,000, $35,000, $28,000 and $41,000, respectively. As of December 31, 2009 and 2010 and September 30, 2011, these warrants to purchase shares of common stock were still outstanding.

During the year ended December 31, 2010, the Company issued warrants to purchase 822,368 shares of common stock in connection with certain collaboration agreements with an exercise price of $6.08 per share and approximately two year terms, of which 411,184 were granted to a related party. These warrants will become exercisable upon election of specified licenses by the holders prior to the expiration of the warrants. These warrants, if they become exercisable, do not contain a net exercise provision and therefore can only be exercised on a cash basis upon surrender of the warrants. Upon a license election by the holders, the Company will record the fair value of these warrants as measured

INTERMOLECULAR, INC. AND SUBSIDIARIES
Notes to Consolidated Financial Statements (Continued)

7. Warrants (Continued)

on the date of election against any related revenue derived from these agreements. As of September 30, 2011, the holders have not elected the license option.

During the nine months ended September 30, 2011, the Company issued a warrant to purchase 411,000 shares of common stock in connection with a collaboration agreement with an exercise price of $8.31 per share and a term of 18 months. The warrant was exercisable immediately. The warrant does not contain a net exercise provision and therefore can only be exercised on a cash basis upon surrender of the warrants. The fair value of the warrant as measured on the date of grant was $312,000 and was recognized as a reduction of revenue derived from the agreement. The Company also issued a warrant to purchase 2,500 shares of common stock in connection with services that were provided to the Company with an exercise price of $0.20 per share and a term of 18 months. The warrant was exercisable immediately. The fair value of the warrant as measured on the date of grant was $29,000 and was recognized in general and administrative expenses.

In total, the Company had 905,619, 1,727,987 and 2,141,487 outstanding warrants to purchase shares of common stock as of December 31, 2009 and 2010 and September 30, 2011, respectively. Of these outstanding warrants, 846,713, 871,088 and 1,302,224 were exercisable as of December 31, 2009 and 2010 and September 30, 2011, respectively. During the years ended December 31, 2008, 2009, 2010 and the nine months ended September 30, 2010 and 2011, the Company recognized expenses related to the issuances and vesting of these warrants in the amount of $84,000, $58,000, $36,000, $28,000 and $71,000, respectively. Additionally, during the nine months ended September 30, 2011, the Company recognized a reduction to revenue in the amount of $312,000 related to the issuance and vesting of a warrant granted to a customer in connection with a collaboration agreement.

8. Stock-Based Compensation

During the year ended December 31, 2004, the Company adopted the 2004 Equity Incentive Plan (the 2004 Plan) which includes both incentive and nonstatutory stock options. As of September 30, 2011, under the 2004 Plan, the Company may grant options to purchase up to 10,457,346 shares of common stock to employees, directors and service providers with exercise prices not less than the fair market value of the underlying common stock at date of grant for incentive stock options and not less than 85% of fair market value for nonstatutory options. Options granted to persons who, at the time of the grant, own more than 10% of the voting power of all classes of stock will have exercise prices equal to at least 110% of the fair market value of the underlying common stock. These options generally expire 10 years from the date of grant and are generally exercisable at any time after the date of grant when the shares are vested. Incentive and nonstatutory stock options granted generally vest at a rate of 25% on the first anniversary of the commencement or grant date and 1/48th each month thereafter.

INTERMOLECULAR, INC. AND SUBSIDIARIES

Notes to Consolidated Financial Statements (Continued)

8. Stock-Based Compensation (Continued)

Option activity for the periods presented are as follows:

		Options Outstanding			
	Shares Available For Grant	Number of Stock Options Outstanding	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value (in thousands)
Balance as of January 1, 2008	2,499,133	5,305,616	$ 0.75	8.5	$ 6,856
Granted	(813,000)	813,000	2.18		
Exercised	–	(242,753)	0.72		119
Cancelled	564,993	(564,993)	1.41		
Balance as of December 31, 2008	2,251,126	5,310,870	0.90	7.7	5,989
Granted	(1,725,250)	1,725,250	2.00		
Exercised	–	(76,300)	0.18		142
Repurchased	46,875	–	–		
Cancelled	862,389	(862,389)	1.18		
Balance as of December 31, 2009	1,435,140	6,097,431	1.18	7.3	9,047
Granted	(1,579,875)	1,579,875	2.76		
Exercised	–	(86,915)	1.18		141
Cancelled	321,482	(321,482)	2.06		
Balance as of December 31, 2010	176,747	7,268,909	1.48	6.9	13,937
Exercisable as of December 31, 2010		4,789,962	$ 0.98	5.9	$ 11,375
Vested and expected to vest as of December 31, 2010		6,669,505	$ 1.40		$ 13,309
Additional shares authorized (unaudited)	1,227,483	–			
Granted (unaudited)	(1,393,999)	1,393,999	6.80		
Exercised (unaudited)	–	(282,456)	1.28		2,101
Cancelled (unaudited)	224,347	(224,347)	3.33		
Balance as of September 30, 2011 (unaudited)	234,578	8,156,105	2.35	6.7	78,405
Exercisable as of September 30, 2011 (unaudited)		5,277,350	$ 1.19	5.6	$ 56,856
Vested and expected to vest as of September 30, 2011 (unaudited)		7,500,912	$ 2.18		$ 73,288

INTERMOLECULAR, INC. AND SUBSIDIARIES

Notes to Consolidated Financial Statements (Continued)

8. Stock-Based Compensation (Continued)

The options exercisable as of December 31, 2010 include options that are exercisable prior to vesting. The weighted average grant date fair value of options granted during the years ended December 31, 2008, 2009 and 2010 and the nine months ended September 30, 2011 was $1.20, $1.06, $1.48 and $3.84, respectively.

The Company recognized stock-based compensation expense for awards granted to its employees and nonemployees as follows (in thousands):

	Years Ended December 31,			Nine Months Ended September 30,	
	2008	2009	2010	2010	2011
				(unaudited)	
Cost of revenue	$ 71	$ 134	$ 285	$ 188	$ 418
Research and development	170	222	204	171	327
Sales and marketing	408	378	422	336	627
General and administrative	267	347	453	333	431
Total stock-based compensation	$ 916	$ 1,081	$ 1,364	$ 1,028	$ 1,803

As of December 31, 2009 and 2010 and September 30, 2011, there was $2.5 million, $3.4 million and $5.2 million, respectively, of unrecognized compensation cost related to stock option compensation arrangements which is primarily recognized on a straight-line basis over a weighted average period of 2.6, 2.8 and 3.1 years, respectively. There were no capitalized stock-based compensation costs or recognized stock-based compensation tax benefits during the years ended December 31, 2008, 2009 and 2010 and the nine months ended September 30, 2010 and 2011.

Additional information regarding options outstanding as of December 31, 2010 is as follows:

	Options Outstanding			Options Exercisable	
Exercise Price	Options Outstanding	Weighted-Average Remaining Contractual Life (Years)	Weighted-Average Exercise Price per Share	Exercisable	Weighted-Average Exercise Price per Share
$0.02	220,000	4.1	$ 0.02	220,000	$ 0.02
0.10	1,377,396	4.5	0.10	1,377,396	0.10
0.20	728,500	5.4	0.20	728,500	0.20
1.50	489,000	5.9	1.50	488,764	1.50
1.66	1,001,195	6.7	1.66	931,966	1.66
2.00	1,570,319	8.2	2.00	762,956	2.00
2.04	357,000	7.2	2.04	248,880	2.04
2.66	1,262,750	9.2	2.66	–	–
2.90	54,499	7.8	2.90	31,500	2.90
3.40	208,250	10.0	3.40	–	–
	7,268,909	6.9	1.48	4,789,962	0.98

INTERMOLECULAR, INC. AND SUBSIDIARIES

Notes to Consolidated Financial Statements (Continued)

8. Stock-Based Compensation (Continued)

Additional information regarding options outstanding as of September 30, 2011 is as follows (unaudited):

	Options Outstanding			Options Exercisable	
Exercise Price	Options Outstanding	Weighted-Average Remaining Contractual Life (Years)	Weighted-Average Exercise Price per Share	Exercisable	Weighted-Average Exercise Price per Share
$ 0.02	217,500	3.4	$ 0.02	217,500	$ 0.02
0.10	1,350,000	3.7	0.10	1,350,000	0.10
0.20	671,000	4.6	0.20	671,000	0.20
1.50	404,000	5.1	1.50	404,000	1.50
1.66	903,374	5.9	1.66	899,834	1.66
2.00	1,501,023	7.5	2.00	972,732	2.00
2.04	281,362	6.4	2.04	249,348	2.04
2.66	1,228,596	8.5	2.66	453,990	2.66
2.90	44,500	7.1	2.90	34,011	2.90
3.40	206,750	9.2	3.40	9,310	3.40
6.20	1,221,500	9.6	6.20	15,625	6.20
11.96	126,500	9.9	11.96	–	–
	8,156,105	6.7	2.35	5,277,350	1.19

Determining Fair Value of Stock Options

The fair value of each grant of stock options was determined by the Company and its board of directors using the methods and assumptions discussed below. Each of these inputs is subjective and generally requires significant judgment to determine.

Valuation Method–The Company estimates the fair value of its stock options using the Black-Scholes option-pricing model.

Expected Term–The expected term represents the period that the stock-based awards are expected to be outstanding. For option grants that are considered to be "plain vanilla," the Company used the simplified method to determine the expected term as provided by the Securities and Exchange Commission. The simplified method calculates the expected term as the average of the time-to-vesting and the contractual life of the options.

Expected Volatility–The expected volatility was based on the historical stock volatilities of several of the Company's publicly listed peers over a period approximately equal to the expected term of the options as the Company did not have a sufficient trading history to use the volatility of its own common stock.

Fair Value of Common Stock–The fair value of the common stock underlying the stock options has historically been determined by the Company's board of directors. Because there has been no public market for the Company's common stock, the board of directors has determined the fair value of the common stock at the time of the option grant by considering a number of objective and subjective factors including valuations of comparable companies, sales of redeemable convertible preferred stock

INTERMOLECULAR, INC. AND SUBSIDIARIES

Notes to Consolidated Financial Statements (Continued)

8. Stock-Based Compensation (Continued)

to unrelated third parties, operating and financial performance, lack of liquidity of capital stock and general and industry-specific economic outlook, amongst other factors. The fair value of the underlying common stock shall be determined by the board of directors until such time that the Company's common stock is listed on an established stock exchange or national market system.

Risk-Free Interest Rate–The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of grant for zero coupon U.S. Treasury notes with maturities approximately equal to the expected term of the options.

Expected Dividend–The expected dividend has been zero as the Company has never paid dividends and does not expect to pay dividends.

Summary of Assumptions–The fair value of the employee stock options were estimated on the grant dates using a Black-Scholes option-pricing model with the following weighted average assumptions:

	Years Ended December 31,			Nine Months Ended September 30,	
	2008	2009	2010	2010	2011
				(unaudited)	
Expected term (in years)	6.0	6.0	6.0	6.0	6.0
Risk-free interest rate	3.3%	2.5%	2.2%	2.7%	2.3%
Expected volatility	55%	55%	55%	55%	57%
Expected dividend rate	0%	0%	0%	0%	0%

9. Net Loss per Share of Common Stock

The following table sets forth the computation of the Company's basic and diluted net loss per share of common stock during the years ended December 31, 2008, 2009 and 2010 and the six months ended June 30, 2010 and 2011 (in thousands, except for share and per share amounts):

	Years Ended December 31,			Nine Months Ended September 30,	
	2008	2009	2010	2010	2011
				(unaudited)	
Net loss attributable to common stockholders	$ (14,936)	$ (14,424)	$ (15,940)	$ (12,945)	$ (13,124)
Shares used in computing net loss per share of common stock, basic and diluted	5,024,118	5,511,889	5,567,286	5,555,448	5,716,511
Net loss per share of common stock, basic and diluted	$ (2.97)	$ (2.62)	$ (2.86)	$ (2.33)	$ (2.30)

INTERMOLECULAR, INC. AND SUBSIDIARIES

Notes to Consolidated Financial Statements (Continued)

9. Net Loss per Share of Common Stock (Continued)

The following outstanding shares of common stock equivalents were excluded from the computation of diluted net loss per share of common stock for the periods presented because including them would have been antidilutive:

	Years Ended December 31,			Nine Months Ended September 30,	
	2008	2009	2010	2010	2011
				(unaudited)	
Redeemable convertible preferred stock	26,221,649	26,221,649	26,221,649	26,221,649	29,230,708
Stock options to purchase common stock	5,310,870	6,097,431	7,268,909	7,241,138	8,156,105
Common stock subject to repurchase	241,354	26,042	–	–	15,000
Common and preferred stock warrants	989,992	989,992	1,812,360	1,812,360	2,225,860

The following table sets forth the computation of the Company's pro forma basic and diluted net loss per share, which are computed to give effect to the conversion of all currently outstanding redeemable convertible preferred stock, as if conversion had occurred at January 1, 2010. The table below further assumes the conversion and subsequent exercise of preferred and certain common stock warrants that will be exercised in connection with the completion of the Company's initial public offering (in thousands, except for share and per share amounts):

	Year Ended December 31, 2010	Nine Months Ended September 30, 2011
		(unaudited)
Net loss attributable to common stockholders	$ (15,940)	$ (13,124)
Accretion of redeemable convertible preferred stock	14,162	8,660
Change in fair value of redeemable convertible preferred stock warrant liabilities	56	694
Net loss used in computing pro forma net loss per share of common stock, basic and diluted	(1,722)	(3,770)
Weighted-average number of shares used in computing net loss per share of common stock, basic and diluted	5,567,286	5,716,511
Weighted-average number of pro forma adjustments to reflect assumed conversion of redeemable convertible preferred stock and certain warrants	27,120,874	29,169,106
Weighted-average number of shares used in computing pro forma net loss per share of common stock, basic and diluted	32,688,160	34,885,617
Pro forma net loss per share of common stock, basic and diluted	$ (0.05)	$ (0.11)

INTERMOLECULAR, INC. AND SUBSIDIARIES
Notes to Consolidated Financial Statements (Continued)

10. Income Taxes

The Company follows FASB ASC 740-270, *Income Taxes–Interim Reporting*, for the computation and presentation of its interim period tax provision. Accordingly, management estimated the effective annual tax rate and applied this rate to the year-to-date pre-tax book income, net of US book loss on which a full valuation allowance has been placed, to determine the interim provision for income taxes. For the nine months ended September 30, 2011, the income tax provision of $19,000 represents a provision for income taxes of $18,000 related to foreign income taxes and state minimum income taxes of $1,000.

The provision for annual income taxes consisted of the following (in thousands):

	As of December 31,		
	2008	2009	2010
Current:			
U.S. Federal	$ –	$ –	$ –
State	175	4	1
Foreign	11	13	18
Total current	$ 186	$ 17	$ 19
Deferred:			
U.S. Federal	$ –	$ –	$ –
State	–	–	–
Foreign	–	–	–
Total deferred	–	–	–
Total provision for income taxes	$ 186	$ 17	$ 19

The reconciliation of federal statutory income tax to the Company's provision for income taxes is as follows (in thousands):

	As of December 31,		
	2008	2009	2010
Expected provision at statutory federal rate	$ (3,167)	$ (1,781)	$ (616)
State tax–net of federal benefit	116	4	1
U.S. federal research credit	(490)	(444)	(626)
Non deductible expenses	318	399	486
Change in statutory tax rate	–	–	(264)
Others	26	93	164
Change in valuation allowance	3,383	1,746	874
Provision for income taxes	$ 186	$ 17	$ 19

As of December 31, 2010, the Company's foreign subsidiaries had accumulated approximately $0.2 million of earnings that have been reinvested in their operations. The Company has not provided U.S. tax on these earnings as the reinvestment is considered permanent in duration.

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax

INTERMOLECULAR, INC. AND SUBSIDIARIES
Notes to Consolidated Financial Statements (Continued)

10. Income Taxes (Continued)

purposes. Significant components of the Company's deferred tax assets and liabilities are as follows (in thousands):

	As of December 31,	
	2009	2010
Deferred tax assets:		
Net operating loss federal and state	$ 7,925	$ 8,426
Research credits	2,231	3,271
Accrued compensation and vacation	287	324
Deferred revenue, other accruals and reserves	4,027	3,705
Stock compensation	239	242
Gross deferred tax assets	14,709	15,968
Valuation allowance	(13,917)	(15,818)
Total deferred tax asset	792	150
Deferred tax liabilities:		
Patents	649	–
Property and equipment	143	150
Total deferred tax liabilities	792	150
Net deferred tax assets	$ –	$ –

The Company established valuation allowances for U.S. federal and state deferred tax assets. The valuation allowances require an assessment of both positive and negative evidence when determining whether it is more likely than not that deferred tax assets are recoverable. Such assessment is required on a jurisdiction by jurisdiction basis. During the year ended December 31, 2010, the Company continued to maintain the valuation allowances for U.S. federal and state deferred tax assets. The Company intends to maintain a full valuation allowance until sufficient positive evidence exists to support reversal. The valuation allowance for deferred tax assets was $13.9 million and $15.8 million as of December 31, 2009 and 2010, respectively. The increase in the valuation allowance during the years ended December 31, 2009 and 2010 was $1.8 million and $1.9 million, respectively.

As of December 31, 2010, the Company has net operating loss carryforwards for U.S. federal and state income tax purposes of approximately $17.4 million and $18.5 million, respectively, to offset future taxable income. The U.S. federal net operating loss carryforwards will start to expire in 2026 while for state purposes, the net operating loss carryforwards will start to expire in 2018. Utilization of the Company's net operating loss carryforwards and tax credits may be subject to substantial annual limitation due to the ownership change limitations provided by the Internal Revenue Code and similar state provisions. Such an annual limitation could result in the expiration of the net operating loss before utilization. The Company has not determined whether an ownership change has occurred.

In addition, the Company has $2.5 million U.S. federal R&D credit and $2.5 million California R&D credit carryforwards to offset future income tax liabilities. U.S. federal R&D tax credits can be carried forward for 20 years and will start to expire in 2025. California R&D credits can be carried forward indefinitely.

INTERMOLECULAR, INC. AND SUBSIDIARIES
Notes to Consolidated Financial Statements (Continued)

10. Income Taxes (Continued)

Uncertain Tax Positions

As of both December 31, 2010 and September 30, 2011, the total amount of unrecognized tax benefits excluding interest thereon was $1.1 million, none of which would impact the effective tax rate if realized during the year. The Company has not accrued interest and penalties related to the unrecognized tax benefits reflected in the financial statements for the year ended December 31, 2010 and nine months ended September 30, 2011. Although the timing and outcome of income tax audits is highly uncertain, unrecognized tax benefits are not expected to decrease in the next twelve months.

The following table summarizes the activity related to unrecognized tax benefits (in thousands):

	As of December 31,		
	2008	2009	2010
Unrecognized benefit–beginning of period	$ 222	$ 518	$ 746
Gross increases–prior period tax positions	–	–	–
Gross increases–current period tax positions	296	228	321
Unrecognized benefit–end of period	$ 518	$ 746	$ 1,067

The Company's U.S. federal, state and local and foreign income tax returns are subject to audit by relevant tax authorities. The Company's income tax reporting periods beginning with tax year ended December 31, 2008 for the U.S., and tax year ended December 31, 2007 for the Company's major state and local jurisdictions remain generally open to audit by relevant tax authorities.

11. Related Party Transactions

The Company entered into a Collaborative Development and License Agreement in March 2005 and an Alliance Agreement in December 2005 with a technology company under which the two companies will work together to conduct research and development and other activities with respect to materials and high throughput technology for use in semiconductor applications. Depending on the output of the research and development, the primary rightholder could be either company. However, the party that is not the primary rightholder will be assigned the right to use the output property. Each party is bearing its own expenses with respect to patents and the patent application process. The Company is required to pay royalties based on a percentage of revenue derived, directly or indirectly, from the use of this technology. The Company is not generating revenue from the other party. In August 2006, the Company received $13.5 million from the other party in exchange for shares of Series C representing 9.8% of the Company's fully diluted shares. In December 2008, the Company received $1.6 million from the other party in exchange for shares of Series D. As of December 31, 2010 and September 30, 2011, the other party is a beneficial owner of approximately 11.8% and 10.9% of the Company's common stock, respectively. During the years ended December 31, 2008, 2009 and 2010 and the nine months ended September 30, 2010 and 2011, the Company expensed $1.0 million, $1.2 million, $2.0 million, $1.3 million and $1.5 million, respectively, in cost of revenue and had accrued liabilities in the amount of $502,000, $795,000 and $552,000 due to the other party as of December 31, 2009 and 2010 and September 30, 2011, respectively. During the years ended December 31, 2008, 2009 and 2010 and the nine months ended September 30, 2010 and 2011, the Company purchased $286,000, $14,000, $6,000, $0 and $172,000, respectively, of fixed assets, software licenses, maintenance and consumables from the other party. In July 2011, the Company entered into an asset purchase

INTERMOLECULAR, INC. AND SUBSIDIARIES
Notes to Consolidated Financial Statements (Continued)

11. Related Party Transactions (Continued)

agreement with the same party to purchase intellectual property that the Company currently licenses from them. The Company has disclosed in note 5 an overview of the asset purchase agreement.

The Company entered into a Collaborative Development and License Agreement in August 2006 and a second Collaborative Development and License Agreement in March 2010 with another related party. Under the agreements, the two companies will work together to conduct research and development and other activities. Depending on the output of the research and development, the primary rightholder will be the Company or the other party. However, if the other party is not the primary rightholder, it will be able to license the developed technology from the Company. The other party's vice chairman of the board of directors is a director of the Company and is also a managing member of a significant shareholder of the Company. As of December 31, 2010 and September 30, 2011, this shareholder is a beneficial owner of approximately 15.7% and 14.8%, respectively, of the Company's common stock. During the years ended December 31, 2008, 2009 and 2010 and the nine months ended September 30, 2010 and 2011, the Company recorded revenue in the amount of $1.7 million, $0, $3.9 million, $2.5 million and $3.9 million, respectively, from these agreements.

In November 2006, the Company entered into an Alliance Agreement with a related party that is a beneficial owner of approximately 9.3% and 10.6% of the Company's common stock as of December 31, 2010 and September 30, 2011, respectively. Under the agreement, the two companies will work together to conduct research and development and other activities with respect to materials and high productivity combinatorial technology for use in semiconductor applications. Depending on the output of the research and development, the primary rightholder could be either company. However, the party that is not the primary rightholder will be assigned the right to use the output property. Under the agreement, the other party will pay the Company fees for services and both parties may provide royalties to the other for licensed technology sold to third parties. In July 2007, the Company and the other party entered into a Workflow Purchase Agreement whereby the other party agreed to purchase from the Company a fluids-based workflow including services and licensing of intellectual property. In December 2007, the Company and the other party added an addendum to the Workflow Purchase Agreement. As part of this addendum, the other party increased the number of fluids-based workflows for purchase, contracted with the Company for additional services and provided for a $10.0 million prepayment of minimum royalties. The $10.0 million minimum royalty prepayment is nonrefundable. The minimum royalty prepayment began revenue recognition during the year ended December 31, 2009 and should be fully earned no later than the year ended December 31, 2012. The agreement committed the other party to purchase three additional workflows in addition to the initial workflow order. In December 2008, the Company and the other party added an additional addendum to the Workflow Purchase Agreement and entered into a Dry Workflow Agreement. As part of this 2008 addendum, the third Wet Workflow was canceled and the deposit applied to the Dry Workflow purchase. In March 2009, the Company and the other party entered into a supplement to the Workflow Purchase Agreement which adjusted the timing and delivery of services to be performed. Effective August 2010, the Company and the other party entered into a Modification to the Wets Workflow Purchase Agreement and Dry Workflow Purchase Agreement which further extended and adjusted the timing and services to be performed. During the years ended December 31, 2008, 2009 and 2010 and the nine months ended September 30, 2010 and 2011, the Company recorded revenue in the amount of $13.4 million, $16.0 million, $22.1 million, $16.5 million and $11.7 million, respectively, in equipment sales, license fees and service fees and had accounts receivable in the amount of $1.2 million, $461,000 and $447,000 as of December 31, 2009, 2010 and September 30, 2011, respectively, related to these agreements. The Company recorded a deferred revenue balance in the amount of $22.8 million,

INTERMOLECULAR, INC. AND SUBSIDIARIES

Notes to Consolidated Financial Statements (Continued)

11. Related Party Transactions (Continued)

$13.3 million and $5.7 million related to these agreements as of December 31, 2009, 2010 and September 30, 2011, respectively. The deferred revenue balance includes the unrecognized portion of the prepayment of the $10.0 million minimum royalty, of which $7.5 million and $3.8 million remains as of December 31, 2010 and September 30, 2011, respectively, as well as payments for elements of the workflow purchases.

12. Information about Geographic Areas

Revenue

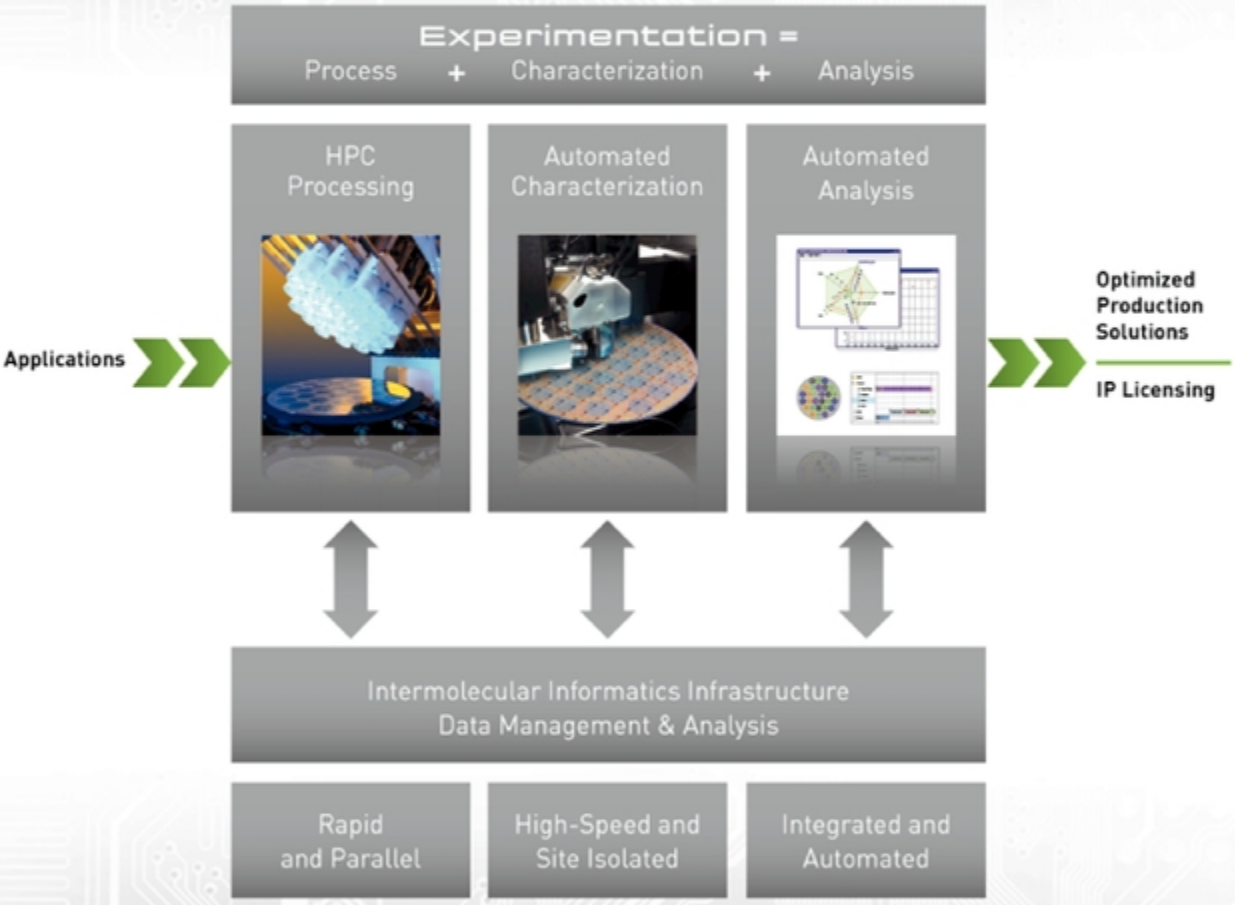
Revenue by geography is based on the billing address of the customer. The following table sets forth revenue by geographic area (in thousands):

	Years Ended December 31,			Nine Months Ended September 30,	
	2008	2009	2010	2010	2011
				(unaudited)	
United States	$ 16,522	$ 18,894	$ 29,526	$ 20,158	$ 25,218
Japan	6,267	7,906	12,449	8,142	11,231
Taiwan	90	–	489	–	2,199
Europe	250	110	210	210	50
Total	$ 23,129	$ 26,910	$ 42,674	$ 28,510	$ 38,698

Long-Lived Assets

Substantially all of the Company's long-lived assets are located in the U.S. An insignificant amount of long-lived assets reside in the Company's foreign subsidiaries and branches in Hong Kong, Japan and Taiwan.

Intermolecular Innovation Platform



INTERMOLECULAR
FAST FORWARD THINKING

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution

The following table sets forth the fees and expenses, other than underwriting discounts and commissions, payable in connection with the registration of the common stock hereunder. All amounts are estimates except the SEC registration fee, the FINRA filing fee and The NASDAQ Global Select Market listing fee.

	Amount to be Paid
Securities and Exchange Commission registration fee	$ 23,220
FINRA filing fee	20,500
NASDAQ Global Select Market listing fee	150,000
Symyx transaction expenses	1,805,533
Blue Sky fees and expenses	5,000
Printing and engraving expenses	240,000
Legal fees and expenses	1,700,000
Accounting fees and expenses	1,138,000
Transfer Agent and Registrar fees	7,500
Consulting fees and expenses	201,472(1)
Miscellaneous expenses (including travel)	125,247
Total	$ 5,416,472

(1) Includes $41,472 as a non-cash expense relating to the issuance of common stock for services.

Item 14. Indemnification of Directors and Officers

Section 145 of the Delaware General Corporation Law provides that a corporation may indemnify its directors and officers from certain expenses in connection with legal proceedings and permits a corporation to include in its charter documents, and in agreements between the corporation and its directors and officers, provisions expanding the scope of indemnification beyond that specifically provided by this section.

The Registrant's restated certificate of incorporation provides for the indemnification of directors to the fullest extent permissible under Delaware law.

The Registrant's amended and restated bylaws provide for the indemnification of officers, directors and third parties acting on the Registrant's behalf if such persons act in good faith and in a manner reasonably believed to be in and not opposed to the Registrant's best interest, and, with respect to any criminal action or proceeding, such indemnified party had no reason to believe his or her conduct was unlawful.

The Registrant is entering into indemnification agreements with each of its directors and executive officers, in addition to the indemnification provisions provided for in its charter documents, and the Registrant intends to enter into indemnification agreements with any new directors and executive officers in the future.

The underwriting agreement (a form of which is filed as Exhibit 1.1 hereto) will provide for indemnification by the underwriters of the Registrant and the Registrant's executive officers and directors, and indemnification of the underwriters by the Registrant, for certain liabilities, including liabilities arising under the Securities Act of 1933, as amended, in connection with certain matters.

The Registrant intends to purchase and maintain insurance on behalf of any person who is or was a director or officer against any loss arising from any claim asserted against him or her and incurred by him or her in that capacity, subject to certain exclusions and limits of the amount of coverage.

Item 15. Recent Sales of Unregistered Securities

The following sets forth information regarding all unregistered securities sold by the Registrant since January 1, 2008:

1. On June 20, 2008, the Registrant issued a warrant to purchase 90,000 shares of its common stock at an exercise price of $2.04 per share to a French company owned exclusively by one of the Registrant's consultants. One-fourth of the shares subject to the warrant became exercisable on the first anniversary of the date of issuance, with the remaining shares vesting monthly thereafter such that all shares subject to the warrant may be exercisable by the holder four years after the date of issuance. The vested portion of the warrant may be exercised at any time prior to the warrant's termination, which in any event would occur, if at all, no later than ten years from the date of issuance.

2. On December 16, 2008, the Registrant issued and sold an aggregate of 6,575,832 shares of its Series D preferred stock at a price of $3.04144 per share, for aggregate gross consideration of $19,999,998.49, to seven accredited investors. Each share of Series D preferred stock is convertible into one-half of one share of common stock upon the consummation of the offering.

3. On March 15, 2010, the Registrant issued warrants to purchase an aggregate of 822,368 shares of its common stock at an exercise price of $6.08288 per share to Toshiba Corporation and SanDisk Corporation, which may become exercisable pursuant to the terms of that certain Collaborative Development Program Agreement, by and among the Registrant, Toshiba Corporation and SanDisk Corporation. Upon becoming exercisable, the warrants may be exercised no later than 120 days following the end of the activities conducted by Toshiba, SanDisk and the Registrant pursuant to the Collaborative Development Program Agreement.

4. On March 4, 2011, the Registrant issued and sold an aggregate of 3,610,873 shares of its Series E preferred stock at a price of $4.15412 per share, for aggregate gross consideration of $14,999,999.78, to seven accredited investors. Each share of Series E preferred stock is convertible into one-half of one share of common stock upon the consummation of the offering.

5. On June 1, 2011, the Registrant issued a warrant to purchase 411,000 shares of its common stock at an exercise price of $8.30824 per share to Advanced Technology Investment Company LLC. The warrant may be exercised at any time prior to its termination date, which is the eighteen month anniversary of its issue date.

6. On June 14, 2011, the Registrant issued and sold an aggregate of 2,407,249 shares of its Series E preferred stock at a price of $4.15412 per share, for aggregate gross consideration of $10,000,001.21, to one accredited investor. Each share of Series E preferred stock is convertible into one-half of one share of common stock upon the consummation of the offering.

7. On August 25, 2011, the Registrant issued a warrant to purchase 2,500 shares of its common stock at an exercise price of $0.20 per share to The Enterprise Network. The warrant may be exercised at any time prior to the warrant's termination, which in any event would occur, if at all, no later than eighteen months from the date of issuance.

8. Between January 1, 2008 and October 15, 2011, the Registrant granted stock options to purchase 5,512,124 shares of its common stock at exercise prices ranging from $2.00 to

$11.96 per share to a total of 250 employees, consultants and directors under its 2004 Equity Incentive Plan.

9. Between January 1, 2008 and October 15, 2011, the Registrant issued and sold an aggregate of 688,424 shares of its common stock to employees and consultants at prices ranging from $0.02 to $2.66 per share pursuant to the exercise of options granted under its 2004 Equity Incentive Plan.

The issuance of securities described above in Item 15 paragraphs 2 - 7 was exempt from registration under the Securities Act of 1933, as amended, in reliance on Section 4(2) of the Securities Act of 1933, as amended, and Regulation D promulgated thereunder, as transactions by an issuer not involving any public offering. The purchasers of the securities in these transactions represented that they were accredited investors and that they were acquiring the securities for investment only and not with a view toward the public sale or distribution thereof. Such purchasers received written disclosures that the securities had not been registered under the Securities Act of 1933, as amended, and that any resale must be made pursuant to a registration statement or an available exemption from registration. All purchasers either received adequate financial statement or non-financial statement information about the Registrant or had adequate access, through their relationship with the Registrant, to financial statement or non-financial statement information about the Registrant. The sale of these securities was made without general solicitation or advertising.

The issuance of securities described above in Item 15 paragraphs 1, 8 and 9 was exempt from registration under the Securities Act of 1933, as amended, in reliance on Rule 701, Section 4(2) and Regulation S of the Securities Act of 1933, as amended, pursuant to compensatory benefit plans or agreements approved by the Registrant's board of directors.

All certificates representing the securities issued in these transactions described in this Item 15 included appropriate legends setting forth that the securities had not been offered or sold pursuant to a registration statement and describing the applicable restrictions on transfer of the securities. There were no underwriters employed in connection with any of the transactions set forth in this Item 15.

Item 16. Exhibits and Financial Statement Schedules

(a) Exhibits

Exhibit No.	Description of Exhibits
1.1	Form of Underwriting Agreement.
2.1#	Asset Purchase Agreement by and between Intermolecular, Inc. and Symyx Technologies, Inc. dated as of July 28, 2011.(1)
3.1#	Fifth Restated Certificate of Incorporation of Intermolecular, Inc., currently in effect.
3.2	Form of Sixth Restated Certificate of Incorporation of Intermolecular, Inc., to be in effect prior to the effectiveness of this registration statement.
3.3#	Bylaws of Intermolecular, Inc., as amended, currently in effect.
3.4	Form of Amended and Restated Bylaws of Intermolecular, Inc., to be in effect immediately prior to the consummation of this offering.
3.5	Form of Amended and Restated Certificate of Incorporation of Intermolecular, Inc., to be in effect immediately prior to the consummation of this offering.
4.1	Specimen Common Stock Certificate.
4.2#	Warrant to purchase shares of common stock issued to Timane S.a.r.l. dated June 20, 2008.

Exhibit No.	Description of Exhibits
4.3#	Form of warrant to purchase shares of common stock issued to Toshiba Corporation and SanDisk Corporation dated March 15, 2010.
5.1	Opinion of Latham & Watkins LLP.
10.1#	Fourth Amended and Restated Investor Rights Agreement dated as of March 4, 2011, by and among Intermolecular, Inc. and certain stockholders named therein, as amended by Amendment No. 1 to Fourth Amended and Restated Investor Rights Agreement dated as of June 14, 2011.
10.2#	Lease Agreement by and between Intermolecular, Inc. and Novellus Systems, Inc. dated as of May 10, 2010, as amended by the Confirmation of Commencement Date of the Lease Agreement dated as of June 10, 2010.
10.3†	Collaborative Development Program Agreement by and among SanDisk Corporation, Toshiba Corporation and Intermolecular, Inc. dated March 15, 2010.
10.4†#	Alliance Agreement by and between Intermolecular, Inc. and Advanced Technology Materials, Inc. dated as of November 17, 2006.
10.5†	Wets Workflow Purchase Agreement by and between Intermolecular, Inc. and Advanced Technology Materials, Inc. dated as of July 13, 2007, as amended by the Addendum to Wets Workflow Purchase Agreement dated as of December 21, 2007, the Amendment to Addendum to Wets Workflow Purchase Agreement dated as of December 16, 2008 and the Supplemental Agreement to the Amendment to the Addendum to Wets Workflow Purchase Agreement dated as of March 16, 2009.
10.6†#	Dry Workflow Purchase Agreement by and between Intermolecular, Inc. and Advanced Technology Materials, Inc. dated as of December 16, 2008.
10.7†#	Modification to the Wets Workflow Purchase Agreement and Dry Workflow Purchase Agreement by and between Intermolecular, Inc. and Advanced Technology Materials, Inc. dated as of August 27, 2010.
10.8†#	Amendment Number 5 to the Wets Workflow Purchase Agreement and Dry Workflow Purchase Agreement by and between Intermolecular, Inc. and Advanced Technology Materials, Inc. dated as of March 3, 2011.
10.9†	Advanced Memory Development Program Agreement by and between Intermolecular, Inc. and Elpida Memory, Inc. dated as of May 22, 2008, as amended by Exhibit C−Royalty Terms dated as of August 18, 2008, the Supplemental Joint Development Agreement dated as of January 27, 2009, the Amendment to the Supplemental Joint Development Agreement dated as of May 25, 2009 and the Amendment to the Advanced Memory Agreement dated July 29, 2010.
10.10†#	Collaborative Development Program Agreement by and between Intermolecular, Inc. and GLOBALFOUNDRIES Inc. dated as of June 1, 2011.
10.11#	Form of Indemnification Agreement between Intermolecular, Inc. and each of its directors, as currently in effect.

10.12 Form of Indemnification Agreement between Intermolecular, Inc. and each of its directors, officers and certain employees, to be effective upon the consummation of this offering.

10.13a+#Intermolecular, Inc. 2004 Equity Incentive Plan, as amended.

10.13b+#Form of Early Exercise Stock Option Agreement under the 2004 Equity Incentive Plan.

10.13c+#Form of Stock Option Agreement under the 2004 Equity Incentive Plan.

Exhibit No.	Description of Exhibits
10.14a+	Intermolecular, Inc. 2011 Incentive Award Plan.
10.14b+	Form of Stock Option Grant Notice and Stock Option Agreement under the 2011 Incentive Award Plan.
10.14c+	Form of Restricted Stock Award Grant Notice and Restricted Stock Award Agreement under the 2011 Incentive Award Plan.
10.14d+	Form of Restricted Stock Unit Award Grant Notice and Restricted Stock Unit Award Agreement under the 2011 Incentive Award Plan.
10.15a+	Form of Change in Control Severance Agreement between the Company and certain of its executive officers.
10.15b+	Change in Control Severance Agreement between the Company and David E. Lazovsky.
23.1	Consent of KPMG LLP, Independent Registered Public Accounting Firm.
23.2	Consent of Latham & Watkins LLP (included in Exhibit 5.1).
24.1#	Power of Attorney.

+ Indicates a management contract or compensatory plan.

† Certain portions have been omitted pursuant to a confidential treatment request. Omitted information has been filed separately with the SEC.

Previously filed.

(1) All exhibits, schedules and similar attachments to this exhibit have been omitted. Copies of such exhibits, schedules and similar attachments will be furnished supplementally to the SEC upon request.

(b) Financial Statement Schedules

Schedules not listed above have been omitted because the information required to be set forth therein is not applicable or is shown in the financial statements or notes thereto.

Item 17. Undertakings

Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended, may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933, as amended, and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933, as amended, and will be governed by the final adjudication of such issue.

The undersigned Registrant hereby undertakes that:

(a) The Registrant will provide to the underwriters at the closing, as specified in the underwriting agreement, certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

(b) For purposes of determining any liability under the Securities Act of 1933, as amended, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in the form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act of 1933, as amended, shall be deemed to be part of this registration statement as of the time it was declared effective.

(c) For the purpose of determining any liability under the Securities Act of 1933, as amended, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant has duly caused this amendment to this Registration Statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of San Jose, State of California, on the 7th day of November, 2011.

INTERMOLECULAR, INC.

/s/ DAVID E. LAZOVSKY
By: David E. Lazovsky
President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, as amended, this amendment to this Registration Statement has been signed by the following persons in the capacities indicated below on the dates indicated.

Signature	Title	Date
/s/ DAVID E. LAZOVSKY DAVID E. LAZOVSKY	President, Chief Executive Officer and Director (Principal Executive Officer)	November 7, 2011
/s/ PETER L. EIDELMAN PETER L. EIDELMAN	Chief Financial Officer (Principal Financial and Accounting Officer)	November 7, 2011
* THOMAS R. BARUCH	Director	November 7, 2011
* MARVIN D. BURKETT	Director	November 7, 2011
* IRWIN FEDERMAN	Director	November 7, 2011
* ISY GOLDWASSER	Director	November 7, 2011
* BRUCE M. MCWILLIAMS	Director	November 7, 2011

Signature	Title	Date
* GEORGE M. SCALISE	Director	November 7, 2011
* JOHN L. WALECKA	Director	November 7, 2011

*By: /s/ PETER L. EIDELMAN
PETER L. EIDELMAN,
Attorney-in-Fact

EXHIBIT INDEX

Exhibit No.	Description of Exhibits
1.1	Form of Underwriting Agreement.
2.1#	Asset Purchase Agreement by and between Intermolecular, Inc. and Symyx Technologies, Inc. dated as of July 28, 2011.(1)
3.1#	Fifth Restated Certificate of Incorporation of Intermolecular, Inc., currently in effect.
3.2	Form of Sixth Restated Certificate of Incorporation of Intermolecular, Inc., to be in effect prior to the effectiveness of this registration statement.
3.3#	Bylaws of Intermolecular, Inc., as amended, currently in effect.
3.4	Form of Amended and Restated Bylaws of Intermolecular, Inc., to be in effect immediately prior to the consummation of this offering.
3.5	Form of Amended and Restated Certificate of Incorporation of Intermolecular, Inc., to be in effect immediately prior to the consummation of this offering.
4.1	Specimen Common Stock Certificate.
4.2#	Warrant to purchase shares of common stock issued to Timane S.a.r.l. dated June 20, 2008.
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10.6†# Dry Workflow Purchase Agreement by and between Intermolecular, Inc. and Advanced Technology Materials, Inc. dated as of December 16, 2008.

10.7†# Modification to the Wets Workflow Purchase Agreement and Dry Workflow Purchase Agreement by and between Intermolecular, Inc. and Advanced Technology Materials, Inc. dated as of August 27, 2010.

Exhibit No.	Description of Exhibits
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10.15b+	Change in Control Severance Agreement between the Company and David E. Lazovsky.
23.1	Consent of KPMG LLP, Independent Registered Public Accounting Firm.
23.2	Consent of Latham & Watkins LLP (included in Exhibit 5.1).
24.1#	Power of Attorney.

+ Indicates a management contract or compensatory plan.

† Certain portions have been omitted pursuant to a confidential treatment request. Omitted information has been filed separately with the SEC.

Previously filed.

(1) All exhibits, schedules and similar attachments to this exhibit have been omitted. Copies of such exhibits, schedules and similar attachments will be furnished supplementally to the SEC upon request.

Exhibit 1.1

[•] Shares

INTERMOLECULAR, INC.

COMMON STOCK, PAR VALUE $0.001

UNDERWRITING AGREEMENT

[•], 2011

[•], 2011

Morgan Stanley & Co. LLC
J.P. Morgan Securities LLC
Barclays Capital Inc.

c/o Morgan Stanley & Co. LLC
1585 Broadway
New York, New York 10036

J.P. Morgan Securities LLC
383 Madison Avenue
New York, New York 10179

Barclays Capital Inc.
745 Seventh Avenue
New York, New York 10019

Ladies and Gentlemen:

Intermolecular, Inc., a Delaware corporation (the "**Company**"), proposes to issue and sell to the several Underwriters named in Schedule II hereto (the "**Underwriters**"), and certain stockholders of the Company (the "**Selling Stockholders**") named in Schedule I hereto severally propose to sell to the several Underwriters, an aggregate of [•] shares of the common stock, par value $0.001 of the Company (the "**Firm Shares**"), of which [•] shares are to be issued and sold by the Company and [•] shares are to be sold by the Selling Stockholders, each Selling Stockholder selling the amount set forth opposite such Selling Stockholder' s name in Schedule I hereto.

The Company and certain of the Selling Stockholders also severally propose to issue and sell to the several Underwriters not more than an additional [•] shares of common stock, par value $0.001 of the Company (the "**Additional Shares**"), of which [•] shares are to be issued and sold by the Company and [•] shares are to be sold by certain of the Selling Stockholders, each such Selling Stockholder selling the amount set forth opposite such Selling Stockholder' s name in Schedule I hereto under the column titled "Number of Additional Shares to be Sold," if and to the extent that you, as Managers of the offering, shall have determined to exercise, on behalf of the Underwriters, the right to purchase such shares of common stock granted to the Underwriters in Section 3 hereof. The Firm Shares and the Additional Shares are hereinafter collectively referred to as the "**Shares**." The shares of common stock, par value $0.001 of the Company to be outstanding after giving effect

to the sales contemplated hereby are hereinafter referred to as the "**Common Stock**." The Company and the Selling Stockholders are hereinafter sometimes collectively referred to as the "**Sellers**."

The Company has filed with the Securities and Exchange Commission (the "**Commission**") a registration statement, including a prospectus, relating to the Shares. The registration statement as amended at the time it becomes effective, including the information (if any) deemed to be part of the registration statement at the time of effectiveness pursuant to Rule 430A under the Securities Act of 1933, as amended (the "**Securities Act**"), is hereinafter referred to as the "**Registration Statement**"; the prospectus in the form first used to confirm sales of Shares (or in the form first made available to the Underwriters by the Company to meet requests of purchasers pursuant to Rule 173 under the Securities Act) is hereinafter referred to as the "**Prospectus**." If the Company has filed an abbreviated registration statement to register additional shares of Common Stock pursuant to Rule 462(b) under the Securities Act (the "**Rule 462 Registration Statement**"), then any reference herein to the term "**Registration Statement**" shall be deemed to include such Rule 462 Registration Statement.

For purposes of this Agreement, "**free writing prospectus**" has the meaning set forth in Rule 405 under the Securities Act, "**Time of Sale Prospectus**" means the preliminary prospectus together with the documents and pricing information set forth in Schedule III hereto, and "**broadly available road show**" means a "bona fide electronic road show" as defined in Rule 433(h)(5) under the Securities Act that has been made available without restriction to any person. As used herein, the terms "Registration Statement," "preliminary prospectus," "Time of Sale Prospectus" and "Prospectus" shall include the documents, if any, incorporated by reference therein as of the date hereof.

1. *Representations and Warranties of the Company*. The Company represents and warrants to and agrees with each of the Underwriters that:

(a) The Registration Statement has become effective under the Securities Act; no stop order suspending the effectiveness of the Registration Statement is in effect, and no proceedings for such purpose are pending before or, to the Company' s knowledge, threatened by the Commission.

(b) (i) The Registration Statement, when it became effective, did not contain and, as amended or supplemented, if applicable, will not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading, (ii) the Registration Statement and the Prospectus comply and, as amended or supplemented, if applicable, will comply in all material respects with the Securities Act and the applicable rules and regulations of the Commission thereunder, (iii) the Time of Sale Prospectus does not, and at the time of each sale of the Shares in connection with the offering of the Shares when the Prospectus is

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not yet available to prospective purchasers and at the Closing Date (as defined in Section 5 below), the Time of Sale Prospectus, as then amended or supplemented by the Company, if applicable, will not, contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading, (iv) each broadly available road show, if any, when considered together with the Time of Sale Prospectus, does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading and (v) the Prospectus does not contain and, as amended or supplemented, if applicable, will not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading, except that the representations and warranties set forth in this paragraph do not apply to statements or omissions in the Registration Statement, the Time of Sale Prospectus or the Prospectus based upon information relating to any Underwriter furnished to the Company in writing by such Underwriter through you expressly for use therein.

(c) The Company is not an "ineligible issuer" in connection with the offering pursuant to Rules 164, 405 and 433 under the Securities Act. Any free writing prospectus that the Company is required to file pursuant to Rule 433(d) under the Securities Act has been, or will be, filed with the Commission in accordance with the requirements of the Securities Act and the applicable rules and regulations of the

Commission thereunder. Each free writing prospectus that the Company has filed, or is required to file, pursuant to Rule 433(d) under the Securities Act or that was prepared by or behalf of or used or referred to by the Company complies or will comply in all material respects with the requirements of the Securities Act and the applicable rules and regulations of the Commission thereunder. Except for the free writing prospectuses, if any, identified in Schedule III hereto, and electronic road shows, if any, each furnished to you before first use, the Company has not prepared, used or referred to, and will not, without your prior consent, prepare, use or refer to, any free writing prospectus.

(d) The Company has been duly incorporated, is validly existing as a corporation in good standing under the laws of the jurisdiction of its incorporation, has the corporate power and authority to own its property and to conduct its business as described in the Time of Sale Prospectus and is duly qualified to transact business and is in good standing in each jurisdiction in which the conduct of its business or its ownership or leasing of property requires such qualification, except to the extent that the failure to be so qualified or be in good standing would not have a material adverse effect on the Company and its subsidiaries, taken as a whole ("**Material Adverse Effect**").

(e) Each subsidiary of the Company has been duly organized, is validly existing as a corporation or other business entity in good standing under the laws of the jurisdiction of its organization, has the organizational power and authority to own its property and to conduct its business as described in the Time of Sale Prospectus and is duly qualified to transact business and is in good standing in each jurisdiction in which the conduct of its business or its ownership or leasing of property requires such qualification, except to the extent that the failure to be so qualified or be in good standing would not have a material adverse effect on the Company and its subsidiaries, taken as a whole; all of the issued shares of capital stock of each subsidiary of the Company have been duly authorized and validly issued, are fully paid and non-assessable and are owned directly by the Company, free and clear of all liens, encumbrances, equities or claims, except for such liens, encumbrances, equities or claims as would not reasonably be expected to have a Material Adverse Effect.

(f) This Agreement has been duly authorized, executed and delivered by the Company.

(g) The authorized capital stock of the Company conforms as to legal matters to the description thereof contained in each of the Time of Sale Prospectus and the Prospectus.

(h) The shares of Common Stock (including the Shares to be sold by the Selling Stockholders) outstanding prior to the issuance of the Shares to be sold by the Company have been duly authorized and are validly issued, fully paid and non-assessable.

(i) The Shares to be sold by the Company have been duly authorized and, when issued and delivered in accordance with the terms of this Agreement, will be validly issued, fully paid and non-assessable, and the issuance of such Shares will not be subject to any preemptive or similar rights.

(j) The execution and delivery by the Company of, and the performance by the Company of its obligations under, this Agreement will not contravene (i) any provision of applicable law, (ii) the certificate of incorporation or by-laws of the Company, (iii) any agreement or other instrument binding upon the Company or any of its subsidiaries or (iv) any judgment, order or decree of any governmental body, agency or court having jurisdiction over the Company or any subsidiary, except, with respect to clause (iii), where such contravention would not reasonably be expected to have a material adverse effect on the Company or on the power or ability of the Company to perform its obligations under this Agreement or to consummate the transactions contemplated by the Time of Sale Prospectus. No consent, approval, authorization or order of, or qualification with, any governmental body or agency is required for the performance by the Company of its obligations under this Agreement, except such as may be required by the securities or Blue Sky laws of the various states in connection with the offer and sale of the Shares.

(k) There has not occurred any material adverse change or any development reasonably likely to result in a material adverse change, in the condition, financial or otherwise, or in the earnings, business or operations of the Company and its subsidiaries, taken as a whole, from that set forth in the Time of Sale Prospectus.

(l) There are no legal or governmental proceedings pending or threatened to which the Company or any of its subsidiaries is a party or to which any of the properties of the Company or any of its subsidiaries is subject (i) other than proceedings accurately described in all material respects in the Time of Sale Prospectus and proceedings that would not reasonably be expected to have a Material Adverse Effect, or a material adverse effect on the Company or on the power or ability of the Company to perform its obligations under this Agreement or to consummate the transactions contemplated by the Time of Sale Prospectus or (ii) that are required to be described in the Registration Statement or the Prospectus and are not so described. There are no statutes, regulations, contracts or other documents that are required to be described in the Registration Statement or the Prospectus or to be filed as exhibits to the Registration Statement that are not described or filed as required.

(m) Each preliminary prospectus filed as part of the registration statement as originally filed or as part of any amendment thereto, or filed pursuant to Rule 424 under the Securities Act, complied when so filed in all material respects with the Securities Act and the applicable rules and regulations of the Commission thereunder.

(n) The historical financial statements (including the related notes and supporting schedules) included in the Registration Statement, the Prospectus and the Time of Sale Prospectus comply as to form in all material respects with the requirements of Regulation S-X under the Securities Act and present fairly the financial condition, results of operations and cash flows of the entities purported to be shown thereby at the dates and for the periods indicated and have been prepared in conformity with accounting principles generally accepted in the United States applied on a consistent basis throughout the periods involved. The other financial information included in the Registration Statement, the Prospectus and the Time of Sale Prospectus has been derived from the accounting records of the Company and its consolidated subsidiaries and presents fairly in all material respects the information shown thereby.

(o) KPMG LLP, who have certified certain financial statements of the Company and its consolidated subsidiaries, whose report appears in the Time of Sale Prospectus and who have delivered the letter dated the date hereof referred to

in Section 6(g) hereof, are independent public accountants as required by the Securities Act and the applicable rules and regulations of the Commission thereunder.

(p) The Company is not and, after giving effect to the offering and sale of the Shares and the application of the proceeds thereof as described in the Prospectus, will not be required to register as an "investment company" as such term is defined in the Investment Company Act of 1940, as amended.

(q) The Company and its subsidiaries (i) are in compliance with any and all applicable foreign, federal, state and local laws and regulations relating to the protection of human health and safety, the environment or hazardous or toxic substances or wastes, pollutants or contaminants ("**Environmental Laws**"), (ii) have received all permits, licenses or other approvals required of them under applicable Environmental Laws to conduct their respective businesses and (iii) are in compliance with all terms and conditions of any such permit, license or approval, except where such noncompliance with Environmental Laws, failure to receive required permits, licenses or other approvals or failure to comply with the terms and conditions of such permits, licenses or approvals would not reasonably be expected to have a Material Adverse Effect.

(r) There are no known costs or liabilities associated with Environmental Laws (including, without limitation, any capital or operating expenditures required for clean-up, closure of properties or compliance with Environmental Laws or any permit, license or approval, any related constraints on operating activities and any potential liabilities to third parties) which would, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(s) There are no contracts, agreements or understandings between the Company and any person granting such person the right (other than rights that have been waived in writing or otherwise satisfied) to require the Company to file a registration statement under the Securities Act with respect to any securities of the Company or to require the Company to include such securities with the Shares registered pursuant to the Registration Statement.

(t) Neither the Company nor any of its subsidiaries or affiliates, nor any director or officer, nor, to the Company' s knowledge, any employee, agent or representative of the Company or of any of its subsidiaries or affiliates, has taken or will take any action in furtherance of an offer, payment, promise to pay, or authorization or approval of the payment or giving of money, property, gifts or anything else of value, directly or indirectly, to any "government official" (including any officer or employee of a government or government-owned or controlled entity or of a public international organization, or any person acting in an official capacity for or on behalf of any of the foregoing, or any political party

or party official or candidate for political office) to influence official action or secure an improper advantage, other than contributions to any domestic political party, party official or candidate for political office made in accordance with applicable law. The Company and its subsidiaries have conducted their businesses in compliance with applicable anti-corruption laws and have instituted and maintain and will continue to maintain policies and procedures designed to promote and achieve compliance with such laws and with the representation and warranty contained herein.

(u) The operations of the Company and its subsidiaries are and have been conducted at all times in material compliance with all applicable financial recordkeeping and reporting requirements, including those of the Bank Secrecy Act, as amended by Title III of the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 (USA PATRIOT Act), and the applicable anti-money laundering statutes of jurisdictions where the Company and its subsidiaries conduct business, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any governmental agency (collectively, the "**Anti-Money Laundering Laws**"), and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any of its subsidiaries with respect to the Anti-Money Laundering Laws is pending or, to the best knowledge of the Company, threatened.

(v) (i) Neither the Company nor any of its subsidiaries, nor any director or officer, nor, to the Company' s knowledge, any employee, agent, affiliate or representative of the Company or any of its subsidiaries, is an individual or entity ("**Person**") that is, or is owned or controlled by a Person that is:

(A) the subject of any sanctions administered or enforced by the U.S. Department of Treasury' s Office of Foreign Assets Control ("**OFAC**"), the United Nations Security Council ("**UNSC**"), the European Union ("**EU**"), Her Majesty' s Treasury ("**HMT**"), or other relevant sanctions authority (collectively, "**Sanctions**"), nor

(B) located, organized or resident in a country or territory that is the subject of Sanctions (including, without limitation, Burma/Myanmar, Cuba, Iran, Libya, North Korea, Sudan and Syria).

(ii) The Company will not knowingly, directly or indirectly, use the proceeds of the offering of the Shares, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other Person:

(A) to fund or facilitate any activities or business of or with any Person or in any country or territory that, at the time of such funding or facilitation, is the subject of Sanctions; or

(B) in any other manner that will result in a violation of Sanctions by any Person (including any Person participating in the offering, whether as underwriter, advisor, investor or otherwise).

(iii) For the past five years, the Company and its subsidiaries have not knowingly engaged in, are not now knowingly engaged in, and will not knowingly engage in, any dealings or transactions with any Person, or in any country or territory, that at the time of the dealing or transaction is or was the subject of Sanctions.

(w) Subsequent to the respective dates as of which information is given in each of the Registration Statement, the Time of Sale Prospectus and the Prospectus, (i) the Company and its subsidiaries have not incurred any material liability or obligation, direct or contingent, nor entered into any material transaction; (ii) the Company has not purchased any of its outstanding capital stock, nor declared, paid or otherwise made any dividend or distribution of any kind on its capital stock other than ordinary and customary dividends; and (iii) there has not been any material change in the capital stock, short-term debt or long-term debt of the Company and its subsidiaries, except in each case as described in each of the Registration Statement, the Time of Sale Prospectus and the Prospectus, respectively.

(x) The Company and its subsidiaries have good and marketable title to all personal property owned by them which is material to the business of the Company and its subsidiaries, in each case free and clear of all liens, encumbrances and defects except such as are described in the Time of Sale Prospectus or as would not reasonably be expected to have a Material Adverse Effect. The Company does not own any material real property. Any real property and buildings held under lease by the Company and its subsidiaries are held by them under valid, subsisting and enforceable leases with such exceptions as are not material and do not interfere with the current and proposed use of such property and buildings by the Company and its subsidiaries, in each case except as described in the Time of Sale Prospectus.

(y) The Company and its subsidiaries own or possess, or can acquire on reasonable terms, sufficient ownership or license rights to all material patents, patent rights, inventions, copyrights, know-how (including trade secrets and other unpatented and/or unpatentable proprietary or confidential information, systems or procedures), trademarks, service marks and trade names ("**Intellectual Property**") currently employed by them in connection with the business now operated by them. Neither the Company nor any of its subsidiaries has received

any written notice of infringement of rights to Intellectual Property from any third party. Except as described in the Time of Sale Prospectus (i) to the Company' s knowledge, there are no third parties who have or will be able to establish rights to any Intellectual Property, except for the retained rights of the owners of the Intellectual Property which is licensed to the Company; (ii) there is no pending, or to the Company' s knowledge, threatened action, suit, proceeding or claim by others challenging the Company' s rights in or to any Intellectual Property; (iii) there is no pending or, to the Company' s knowledge, threatened action, suit, proceeding or claim by others challenging the validity, enforceability or scope of any Intellectual Property owned or exclusively licensed by the Company, and the Company is unaware of any facts which would form a reasonable basis for any such action, suit, proceeding or claim; and (iv) to the Company' s knowledge, (a) there is no patent or patent application that contains claims that interfere with the issued or pending claims of any of the material Intellectual Property and (b) the Intellectual Property that is used in, held for use in or necessary for the conduct of the businesses operated by the Company and its subsidiaries is not invalid or unenforceable.

(z) No material labor dispute with the employees of the Company or any of its subsidiaries exists, except as described in the Time of Sale Prospectus, or, to the knowledge of the Company, is imminent.

(aa) The Company and each of its subsidiaries are insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as are customary in the businesses in which they are engaged. Neither the Company nor any of its subsidiaries has been refused any insurance coverage sought or applied for; and neither the Company nor any of its subsidiaries has any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business at a cost that would not have a material adverse effect on the Company and its subsidiaries, taken as a whole, except as described in the Time of Sale Prospectus.

(bb) The Company and its subsidiaries possess all certificates, authorizations and permits issued by the appropriate federal, state or foreign regulatory authorities necessary to conduct their respective businesses, and neither the Company nor any of its subsidiaries has received any notice of proceedings relating to the revocation or modification of any such certificate, authorization or permit which, singly or in the aggregate, if the subject of an unfavorable decision, ruling or finding, would reasonably be expected to have a Material Adverse Effect, except as described in the Time of Sale Prospectus.

(cc) The Company maintains a system of internal accounting controls sufficient to provide reasonable assurance that (i) transactions are executed in accordance with management' s general or specific authorizations; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles and to maintain asset accountability; (iii) access to assets is permitted only in accordance with management' s general or specific authorization; and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. Except as described in the Time of Sale Prospectus, since the end of the Company' s most recent audited fiscal year, there has been (i) no material weakness in the Company' s internal control over financial reporting (whether or not remediated) and (ii) no change in the Company' s internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, the Company' s internal control over financial reporting.

(dd) Except as described in the Time of Sale Prospectus, the Company has not sold, issued or distributed any shares of Common Stock during the six-month period preceding the date hereof, including any sales pursuant to Rule 144A under, or Regulation D or S of, the Securities Act, other than shares issued pursuant to employee benefit plans, qualified stock option plans or other employee compensation plans or pursuant to outstanding options, rights or warrants.

(ee) Neither the Company nor any of its subsidiaries (i) is in violation of its charter or bylaws (or similar organizational documents), (ii) is in default, and no event has occurred that, with notice or lapse of time or both, would constitute such a default, in the due performance or observance of any term, covenant or condition contained in any indenture, mortgage, deed of trust, loan agreement, license or other agreement or instrument to which the Company or any of its subsidiaries is a party or by which the Company or any of its subsidiaries is bound or to which any of the properties or assets of the Company or any of its subsidiaries is subject or (iii) is in violation of any statute or any judgment, order, rule or regulation of any court or arbitrator or governmental or regulatory authority or body having jurisdiction over it or its property or assets or has failed to obtain any license, permit, certificate, franchise or other governmental authorization or permit necessary to the ownership of its property or to the conduct of its business, except in the case of clauses (ii) and (iii), to the extent any such conflict, breach, violation or default would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(ff) (i) Each employee benefit plan, within the meaning of Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended ("**ERISA**"), for which the Company or any member of its "Controlled Group" (defined as any organization which is a member of a controlled group of corporations within the meaning of Section 414 of the Internal Revenue Code of

1986, as amended (the "**Code**")) would have any liability (each, a "**Plan**") has been maintained in compliance with its terms and the requirements of any applicable statutes, orders, rules and regulations, including but not limited to, ERISA and the Code; (ii) no prohibited transaction, within the meaning of Section 406 of ERISA or Section 4975 of the Code, has occurred with respect to any Plan excluding transactions effected pursuant to a statutory or administrative exemption that could reasonably be expected to result in a material liability to the Company or its subsidiaries; (iii) for each Plan that is subject to the funding rules of Section 412 of the Code or Section 302 of ERISA, the minimum funding standard of Section 412 of the Code or Section 302 of ERISA, as applicable, has been satisfied (without taking into account any waiver thereof or extension of any amortization period) and is reasonably expected to be satisfied in the future (without taking into account any waiver thereof or extension of any amortization period); (iv) the fair market value of the assets of each Plan exceeds the present value of all benefits accrued under such Plan (determined based on those assumptions used to fund such Plan); (v) no "reportable event" (within the meaning of Section 4043(c) of ERISA) has occurred or is reasonably expected to occur that either has resulted, or could reasonably be expected to result, in material liability to the Company or its subsidiaries; (vi) neither the Company nor any member of the Controlled

Group has incurred, nor reasonably expects to incur, any liability under Title IV of ERISA (other than contributions to the Plan or premiums to the Pension Benefit Guaranty Corporation ("**PBGC**"), in the ordinary course and without default) in respect of a Plan (including a "multiemployer plan", within the meaning of Section 4001(a)(3) of ERISA); (vii) there is no pending audit or investigation by the Internal Revenue Service ("**IRS**"), the U.S. Department of Labor, the PBGC or any other governmental agency or any foreign regulatory agency with respect to any Plan that could reasonably be expected to result in material liability to the Company or its subsidiaries; and (viii) each Plan that is intended to be qualified under Section 401(a) of the Code is so qualified and nothing has occurred, whether by action or by failure to act, which would cause the loss of such qualification.

(gg) (i) The Company has established and maintains disclosure controls and procedures (as such term is defined in Rule 13a-15 under the Securities Exchange Act of 1934, as amended (the "**Exchange Act**")), (ii) such disclosure controls and procedures are designed to ensure that the information required to be disclosed by the Company in the reports it will file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Commission' s rules and forms, and include controls and procedures designed to ensure that such information is accumulated and communicated to management of the Company, including its principal executive officers and principal financial officers, as appropriate, to allow timely decisions regarding required disclosure to be made and (iii) such disclosure controls and procedures are effective in all material respects to perform the functions for which they were established.

(hh) No subsidiary of the Company is currently prohibited, directly or indirectly, from paying any dividends to the Company, from making any other distribution on such subsidiary' s capital stock, from repaying to the Company any loans or advances to such subsidiary from the Company or from transferring any of such subsidiary' s property or assets to the Company or any other subsidiary of the Company.

(ii) The Company has not taken and will not take, directly or indirectly, any action designed to or that has constituted or that could reasonably be expected to cause or result in the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Shares.

(jj) The Company and each of its subsidiaries have filed all federal, state, local and foreign tax returns required to be filed through the date of this Agreement or have requested extensions thereof (except where the failure to file would not reasonably be expected to have a Material Adverse Effect) and have paid all taxes required to be paid thereon (except for cases in which the failure to file or pay would not reasonably be expected to have a Material Adverse Effect, or, except as currently being contested in good faith and for which reserves required by U.S. GAAP have been created in the financial statements of the Company), and no tax deficiency has been determined adversely to the Company or any of its subsidiaries which has had (nor does the Company nor any of its subsidiaries have any notice or knowledge of any tax deficiency which would reasonably be expected to be determined adversely to the Company or its subsidiaries and which would reasonably be expected to have a Material Adverse Effect.

(kk) The Shares have been approved for inclusion, subject to official notice of issuance and evidence of satisfactory distribution, in the NASDAQ Global Market.

2. *Representations and Warranties of the Selling Stockholders*. Each Selling Stockholder, severally and not jointly, represents and warrants to and agrees with each of the Underwriters that:

(a) This Agreement has been duly authorized, executed and delivered by or on behalf of such Selling Stockholder.

(b) The execution and delivery by such Selling Stockholder of, and the performance by such Selling Stockholder of its obligations under, this Agreement, the Custody Agreement signed by such Selling Stockholder and American Stock Transfer & Trust Company, LLC, as Custodian, relating to the deposit of the

Shares to be sold by such Selling Stockholder (the "**Custody Agreement**") and the Power of Attorney appointing certain individuals as such Selling Stockholder' s attorneys-in-fact to the extent set forth therein, relating to the transactions contemplated hereby and by the Registration Statement (the "**Power of Attorney**") will not contravene any provision of (i) applicable law, (ii) the certificate of incorporation or by-laws of such Selling Stockholder (if such Selling Stockholder is a corporation), (iii) any agreement or other instrument binding upon such Selling Stockholder or (iv) any judgment, order or decree of any governmental body, agency or court having jurisdiction over such Selling Stockholder, except, with respect to clause (iii), as would not reasonably be expected to result in a material adverse effect on the power or ability of such Selling Stockholder to perform its obligations under this Agreement, the Custody Agreement or the Power of Attorney or to consummate the transactions contemplated by the Time of Sale Prospectus. No consent, approval, authorization or order of, or qualification with, any governmental body or agency is required for the performance by such Selling Stockholder of its obligations under this Agreement or the Custody Agreement or Power of Attorney of such Selling Stockholder, except such as may be required by the Securities Act or the securities or Blue Sky laws of the various states in connection with the offer and sale of the Shares.

(c) Such Selling Stockholder has, and on the Closing Date will have, valid title to, or a valid "security entitlement" within the meaning of Section 8-501 of the New York Uniform Commercial Code in respect of, the Shares to be sold by such Selling Stockholder free and clear of all security interests, claims, liens, equities or other encumbrances and the legal right and power, and all authorization and approval required by law, to enter into this Agreement, the Custody Agreement and the Power of Attorney and to sell, transfer and deliver the Shares to be sold by such Selling Stockholder or a security entitlement in respect of such Shares.

(d) The Custody Agreement and the Power of Attorney have been duly authorized, executed and delivered by such Selling Stockholder and are valid and binding agreements of such Selling Stockholder, subject to (i) the effects of bankruptcy, insolvency, fraudulent conveyance, reorganization, moratorium and other similar laws relating to or affecting creditors' rights generally, (ii) general equitable principles (whether considered in a proceeding in equity or ay law) and (iii) an implied covenant of good faith and fair dealing..

(e) Upon payment for the Shares to be sold by such Selling Stockholder pursuant to this Agreement, delivery of such Shares, as directed by the Underwriters, to Cede & Co. ("**Cede**") or such other nominee as may be designated by the Depository Trust Company ("**DTC**"), registration of such Shares in the name of Cede or such other nominee and the crediting of such

Shares on the books of DTC to securities accounts of the Underwriters (assuming that neither DTC nor any such Underwriter has notice of any adverse claim (within the meaning of Section 8-105 of the New York Uniform Commercial Code (the "**UCC**")) to such Shares), (A) DTC shall be a "protected purchaser" of such Shares within the meaning of Section 8-303 of the UCC, (B) under Section 8-501 of the UCC, the Underwriters will acquire a valid security entitlement in respect of such Shares and (C) no action based on any "adverse claim", within the meaning of Section 8-102 of the UCC, to such Shares may be asserted against the Underwriters with respect to such security entitlement; for purposes of this representation, such Selling Stockholder may assume that when such payment, delivery and crediting occur, (x) such Shares will have been registered in the name of Cede or another nominee designated by DTC, in each case on the Company' s share registry in accordance with its certificate of incorporation, bylaws and applicable law, (y) DTC will be registered as a "clearing corporation" within the meaning of Section 8-102 of the UCC and (z) appropriate entries to the accounts of the several Underwriters on the records of DTC will have been made pursuant to the UCC.

(e) Such Selling Stockholder is not prompted to sell its Shares pursuant to this Agreement by any information concerning the Company or its subsidiaries which is not set forth in the Time of Sale Prospectus.

(f) (i) The Registration Statement, when it became effective, did not contain and, as amended or supplemented, if applicable, will not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading, (ii) the Time of Sale Prospectus does not, and at the time of each sale of the Shares in connection with the offering when the Prospectus is not yet available to prospective purchasers and at the Closing Date (as defined in Section 5), the Time of Sale Prospectus, as then amended or supplemented by the Company, if applicable, will not, contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading,

(iii) each broadly available road show, if any, when considered together with the Time of Sale Prospectus, does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading and (iv) the Prospectus does not contain and, as amended or supplemented, if applicable, will not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; *provided* that the representations and warranties set forth in this paragraph 2(f) are limited to statements or omissions made in reliance upon information relating to such Selling Stockholder furnished to the Company in writing by such Selling Stockholder expressly for use in the

Registration Statement, the Time of Sale Prospectus, the Prospectus or any amendments or supplements thereto, which shall consist of the statements set forth under the caption "Principal and Selling Stockholders" in the Prospectus and Time of Sale Prospectus (the "**Selling Stockholder Information**").

3. *Agreements to Sell and Purchase*. Each Seller, severally and not jointly, hereby agrees to sell to the several Underwriters, and each Underwriter, upon the basis of the representations and warranties herein contained, but subject to the conditions hereinafter stated, agrees, severally and not jointly, to purchase from such Seller at $[•] a share (the "**Purchase Price**") the number of Firm Shares (subject to such adjustments to eliminate fractional shares as you may determine) that bears the same proportion to the number of Firm Shares to be sold by such Seller as the number of Firm Shares set forth in Schedule II hereto opposite the name of such Underwriter bears to the total number of Firm Shares.

Upon the basis of the representations and warranties herein contained, but subject to the conditions hereinafter stated, each Seller, severally and not jointly, agrees to sell to the several Underwriters, and the Underwriters shall have the right, severally and not jointly, to purchase from the Seller at the Purchase Price up to the number of Additional Shares set forth in Schedule I hereto under the column titled "Number of Additional Shares to be Sold.", provided, however, that the amount paid by the Underwriters for any Additional Shares shall be reduced by an amount per share equal to any dividends declared by the Company and payable on the Firm Shares but not payable on such Additional Shares. You may exercise this right on behalf of the Underwriters in whole or from time to time in part by giving written notice not later than 30 days after the date of this Agreement. Any exercise notice shall specify the number of Additional Shares to be purchased by the Underwriters and the date on which such shares are to be purchased, and the number of Additional Shares to be sold by each Seller on any such date shall bear the same proportion that the maximum number of Additional Shares to be sold by each Seller as set forth in Schedule I hereto bears to the aggregate maximum number of all Additional Shares to be sold (subject to such adjustments to eliminate fractional shares as you may determine). Each purchase date must be at least one business day after the written notice is given and may not be earlier than the closing date for the Firm Shares nor later than five business days after the date of such notice. Additional Shares may be purchased as provided in Section 5 hereof solely for the purpose of covering over-allotments made in connection with the offering of the Firm Shares. On each day, if any, that Additional Shares are to be purchased (an "**Option Closing Date**"), each Underwriter agrees, severally and not jointly, to purchase the number of Additional Shares (subject to such adjustments to eliminate fractional shares as you may determine) that bears the same proportion to the total number of Additional Shares to be purchased on such Option Closing Date as the number of Firm Shares set forth in Schedule II hereto opposite the name of such Underwriter bears to the total number of Firm Shares.

The Company hereby agrees that, without the prior written consent of Morgan Stanley & Co. LLC and J.P. Morgan Securities LLC on behalf of the Underwriters, it will not, during the period ending 180 days after the date of the Prospectus (the "**Restricted Period**"), (1) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock beneficially owned (as such term is used in Rule 13d-3 of the Exchange Act) or any other securities so owned convertible into or exercisable or exchangeable for Common Stock or (2) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the Common Stock, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of Common

Stock or such other securities, in cash or otherwise or (3) file any registration statement with the Commission relating to the offering of any shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock.

The restrictions contained in the preceding paragraph shall not apply to (a) the Shares to be sold hereunder, (b) the issuance by the Company of stock options, restricted stock, restricted stock units or other equity awards pursuant to the Company' s equity incentive plans provided that such equity incentive plans are described in the Time of Sale Prospectus, (c) the issuance of any shares of Common Stock upon the exercise of an option or the conversion of a security outstanding as of the date hereof or issued after the date hereof pursuant to any equity incentive plans, (d) the issuance by the Company of shares of Common Stock upon the exercise of any warrant or the conversion of a security outstanding on the date hereof, (e) the issuance by the Company of securities (and the agreement that provides for the issuance of such securities), or public announcement thereof, in full or partial consideration of one or more future acquisitions or strategic investments, or the filing of a registration statement on Form S-4 under the Securities Act related thereto; provided that in the case of clauses (e), the number of shares of Common Stock issued or issuable pursuant to such clause shall not, in the aggregate, exceed 10% of the number of Shares of Common Stock outstanding as of [•], 2011.

If Morgan Stanley and J.P. Morgan Securities LLC, in their sole discretion, agree to release or waive the restrictions set forth in a lock-up letter described in Section 6(g) hereof for an officer or director of the Company and provide the Company with notice of the impending release or waiver at least five full business days before the effective date of the release or waiver, the Company agrees to announce the impending release or waiver by a press release substantially in the form of Exhibit B hereto through a major news service at least two business days before the effective date of the release or waiver.

4. *Terms of Public Offering*. The Sellers are advised by you that the Underwriters propose to make a public offering of their respective portions of the Shares as soon after the Registration Statement and this Agreement have become effective as in your judgment is advisable. The Sellers are further advised by you that the Shares are to be offered to the public initially at $[•] a share (the "**Public Offering Price**") and to certain dealers selected by you at a price that represents a concession not in excess of $[•] per share under the Public Offering Price, and that any Underwriter may allow, and such dealers may reallow, a concession, not in excess of $[•] per share, to any Underwriter or to certain other dealers.

5. *Payment and Delivery*. Payment for the Firm Shares to be sold by each Seller shall be made to such Seller in Federal or other funds immediately available in New York City against delivery of such Firm Shares for the respective accounts of the several Underwriters at 10:00 a.m., New York City time, on [•], 2011, or at such other time on the same or such other date, not later than [•], 2011, as shall be designated in writing by you. The time and date of such payment are hereinafter referred to as the "**Closing Date**."

Payment for any Additional Shares to be sold by each Seller shall be made to such Seller in Federal or other funds immediately available in New York City against delivery of such Additional Shares for the respective accounts of the several Underwriters at 10:00 a.m., New York City time, on the date specified in the corresponding notice described in Section 3 hereof or at such other time on the same or on such other date, in any event not later than [•], 2011, as shall be designated in writing by you.

The Firm Shares and Additional Shares shall be registered in such names and in such denominations as you shall request in writing not later than one full business day prior to the Closing Date or the applicable Option Closing Date, as the case may be. The Firm Shares and Additional Shares shall be delivered to you on the Closing Date or an Option Closing Date, as the case may be, for the respective accounts of the several Underwriters. The Purchase Price payable by the Underwriters shall be reduced by (i) any transfer taxes paid by, or on behalf of, the Underwriters in connection with the transfer of the Shares to the Underwriters duly paid and (ii) any withholding required by law.

6. *Conditions to the Underwriters' Obligations*. The obligations of the Sellers to sell the Shares to the Underwriters and the several obligations of the Underwriters to purchase and pay for the Shares on the Closing Date are subject to the condition that the Registration Statement shall have become effective not later than [•] (New York City time) on the date hereof.

The several obligations of the Underwriters are subject to the following further conditions:

(a) Subsequent to the execution and delivery of this Agreement and prior to the Closing Date:

(i) there shall not have occurred any change, or any development involving a prospective change, in the condition, financial or otherwise, or in the earnings, business or operations of the Company and its subsidiaries, taken as a whole, from that set forth in the Time of Sale Prospectus that, in your judgment, is material and adverse and that makes it, in your judgment, impracticable to market the Shares on the terms and in the manner contemplated in the Time of Sale Prospectus.

(ii) there shall not have occurred any downgrading, nor shall any notice have been given of any intended or potential downgrading or of any review for a possible change that does not indicate the direction of the possible change, in the rating accorded any of the securities of the Company or any of its subsidiaries by any "nationally recognized statistical rating organization," as such term is defined in Section 3(a)(62) of the Exchange Act.

(b) The Underwriters shall have received on the Closing Date a certificate, dated the Closing Date and signed by an executive officer of the Company, to the effect set forth in Section 6(a)(i) above and to the effect that the representations and warranties of the Company contained in this Agreement are true and correct as of the Closing Date and that the Company has complied with all of the agreements and satisfied all of the conditions on its part to be performed or satisfied hereunder on or before the Closing Date.

The officer signing and delivering such certificate may rely upon the best of his or her knowledge as to proceedings threatened.

(c) The Underwriters shall have received on the Closing Date an opinion of Latham & Watkins LLP, outside counsel for the Company, dated the Closing Date, substantially in the form attached hereto as Exhibit C.

(d) The Underwriters shall have received on the Closing Date an opinion of Paul Hastings LLP, counsel for certain of the Selling Stockholders, dated the Closing Date, substantially in the form attached hereto as Exhibit D-1, and an opinion of Latham & Watkins LLP, counsel for certain of the Selling Stockholders, dated the Closing Date, substantially in the form attached hereto as Exhibit D-2.

(e) The Underwriters shall have received on the Closing Date an opinion of the General Counsel of the Company with respect to certain intellectual property matters, dated the Closing date, substantially in the form attached hereto as Exhibit E.

(f) The Underwriters shall have received on the Closing Date an opinion of Davis Polk & Wardwell LLP, counsel for the Underwriters, dated the Closing Date, with respect to the issuance and sale of the Shares and other related matters as you may reasonably require, and the Company shall have furnished to such counsel such documents as they request for the purpose of enabling them to pass upon such matters.

The opinions of Latham & Watkins LLP and [•] described in Sections 6(c) and 6(d) above (and any opinions of other counsel for any Selling Stockholder referred to in the immediately preceding paragraph) shall be rendered to the Underwriters at the request of the Company or one or more of the Selling Stockholders, as the case may be, and shall so state therein.

(g) The Underwriters shall have received, on each of the date hereof and the Closing Date, a letter dated the date hereof or the Closing Date, as the case may be, in form and substance satisfactory to the Underwriters, from KPMG LLP, independent public accountants, containing statements and information of the type ordinarily included in accountants' "comfort letters" to underwriters with respect to the financial statements and certain financial information contained in the Registration Statement, the Time of Sale Prospectus and the Prospectus; *provided* that the letter delivered on the Closing Date shall use a "cut-off date" not earlier than [the date hereof].

(h) The "lock-up" agreements, each substantially in the form of Exhibit A hereto, between you and certain stockholders (including the Selling Stockholders), officers and directors of the Company relating to sales and certain other dispositions of shares of Common Stock or certain other securities, delivered to you on or before the date hereof, shall be in full force and effect on the Closing Date.

The several obligations of the Underwriters to purchase Additional Shares hereunder are subject to the delivery to you on the applicable Option Closing Date of such documents as you may reasonably request with respect to the good standing of the Company, the due authorization and issuance of the Additional Shares to be sold on such Option Closing Date and other matters related to the issuance of such Additional Shares.

7. *Covenants of the Company*. The Company covenants with each Underwriter as follows:

(a) To furnish to you, without charge, four (4) signed copies of the Registration Statement (including exhibits thereto) and for delivery to each other Underwriter a conformed copy of the Registration Statement (without exhibits thereto) and to furnish to you in New York City, without charge, prior to 10:00 a.m. New York City time on the business day next succeeding the date of this Agreement and during the period mentioned in Section 7(e) or 7(f) below, as many copies of the Time of Sale Prospectus, the Prospectus and any supplements and amendments thereto or to the Registration Statement as you may reasonably request.

(b) Before amending or supplementing the Registration Statement, the Time of Sale Prospectus or the Prospectus, to furnish to you a copy of each such proposed amendment or supplement and not to file any such proposed amendment or supplement to which you reasonably object in a timely manner, and to file with the Commission within the applicable period specified in Rule 424(b) under the Securities Act any prospectus required to be filed pursuant to such Rule.

(c) To furnish to you a copy of each proposed free writing prospectus to be prepared by or on behalf of, used by, or referred to by the Company and not to use or refer to any proposed free writing prospectus to which you reasonably object in a timely manner.

(d) Not to take any action that would result in an Underwriter or the Company being required to file with the Commission pursuant to Rule 433(d) under the Securities Act a free writing prospectus prepared by or on behalf of the Underwriter that the Underwriter otherwise would not have been required to file thereunder.

(e) If the Time of Sale Prospectus is being used to solicit offers to buy the Shares at a time when the Prospectus is not yet available to prospective purchasers and any event shall occur or condition exist as a result of which it is necessary to amend or supplement the Time of Sale Prospectus in order to make the statements therein, in the light of the circumstances, not misleading, or if any event shall occur or condition exist as a result of which the Time of Sale Prospectus conflicts with the information contained in the Registration Statement then on file, or if, in the opinion of counsel for the Underwriters, it is necessary to amend or supplement the Time of Sale Prospectus to comply with applicable law, forthwith to prepare, file with the Commission and furnish, at its own expense, to the Underwriters and to any dealer upon request, either amendments or supplements to the Time of Sale Prospectus so that the statements in the Time of Sale Prospectus as so amended or supplemented will not, in the light of the circumstances when the Time of Sale Prospectus is delivered to a prospective purchaser, be misleading or so that the Time of Sale Prospectus, as amended or supplemented, will no longer conflict with the Registration Statement, or so that the Time of Sale Prospectus, as amended or supplemented, will comply with applicable law.

(f) If, during such period after the first date of the public offering of the Shares as in the opinion of counsel for the Underwriters the Prospectus (or in lieu thereof the notice referred to in Rule 173(a) of the Securities Act) is required by law to be delivered in connection with sales by an Underwriter or dealer, any event shall occur or condition exist as a result of which, in the opinion of counsel for the Underwriters, it is necessary to amend or supplement the Prospectus in order to make the statements therein, in the light of the circumstances when the Prospectus (or in lieu thereof the notice referred to in Rule 173(a) of the Securities Act) is delivered to a purchaser,

not misleading, or if, in the opinion of counsel for the Underwriters, it is necessary to amend or supplement the Prospectus to comply with applicable law, forthwith to prepare, file with the Commission and furnish, at its own expense, to the Underwriters and to the dealers (whose names and addresses you will furnish to the Company) to which Shares may have been sold by you on behalf of the Underwriters and to any other dealers upon request, either amendments or supplements to the Prospectus so that the statements in the Prospectus as so amended or supplemented will not, in the light of the circumstances when the Prospectus (or in lieu thereof the notice referred to in Rule 173(a) of the Securities Act) is delivered to a purchaser, be misleading or so that the Prospectus, as amended or supplemented, will comply with applicable law.

(g) To endeavor to qualify the Shares for offer and sale under the securities or Blue Sky laws of such jurisdictions as you shall reasonably request.

(h) To make generally available to the Company' s security holders and to you as soon as practicable an earning statement covering a period of at least twelve months beginning with the first fiscal quarter of the Company occurring after the date of this Agreement which shall satisfy the provisions of Section 11(a) of the Securities Act and the rules and regulations of the Commission thereunder.

(i) If any Seller is not a U.S. person for U.S. federal income tax purposes, the Company will deliver to each Underwriter (or its agent), on or before the Closing Date, (i) a certificate with respect to the Company' s status as a "United States real property holding corporation," dated not more than thirty (30) days prior to the Closing Date, as described in Treasury Regulations Sections 1.897-2(h) and 1.1445-2(c)(3), and (ii) proof of delivery to the IRS of the required notice, as described in Treasury Regulations 1.897-2(h)(2).

8. *Covenants of the Sellers*. Each Seller, severally and not jointly, covenants with each Underwriter to deliver to each Underwriter (or its agent), prior to or at the Closing Date, a properly completed and executed IRS Form W-9 or an IRS Form W-8, as appropriate, together with all required attachments to such form.

9. *Expenses*. Whether or not the transactions contemplated in this Agreement are consummated or this Agreement is terminated, (a) the Selling Stockholders agree to pay or cause to be paid all expenses directly related to the performance of their obligations under this Agreement, including the fees, disbursements and expenses of counsel for the Selling Stockholders and (b) the Company agrees to pay or cause to be paid all other expenses incident to the performance of its and the Selling Stockholders' obligations under this Agreement, including: (i) the fees, disbursements and expenses of the Company' s counsel and the Company' s accountants in connection with the registration and delivery of the Shares under the Securities Act and all other fees or expenses in connection with the preparation and filing of the Registration Statement, any preliminary prospectus, the Time of Sale Prospectus, the Prospectus, any free writing prospectus prepared by or on behalf of, used by, or referred to by the Company and amendments and supplements to any of the foregoing, including all printing costs associated therewith, and the mailing and delivering of copies thereof to the Underwriters and dealers, in the quantities hereinabove specified, (ii) all costs and expenses related to the transfer and delivery of the Shares to the Underwriters, including any transfer or other taxes payable thereon, (iii) the cost of printing or producing any Blue Sky or Legal Investment memorandum in connection with the offer and sale of the Shares under state securities laws and all expenses in connection with the qualification of the Shares for offer and sale under state securities laws as provided in Section 7(g) hereof, including filing fees and the reasonable fees and disbursements of counsel for the Underwriters in connection with such qualification and in connection with the Blue Sky or Legal Investment memorandum, (iv) all filing fees and the reasonable fees and disbursements of counsel to the Underwriters incurred in connection with the review and qualification of the offering of the Shares by the Financial Industry Regulatory Authority, (v) all fees and expenses in connection with the preparation and filing of the registration statement on Form 8-A relating to the Common Stock and all costs and expenses incident to listing the Shares on the NASDAQ Global Market, (vi) the cost of printing certificates representing the Shares, (vii) the costs and charges of any transfer agent, registrar or depositary, (viii) the costs and expenses of the Company relating to investor presentations on any "road show" undertaken in connection with the marketing of the offering of the Shares, including, without limitation, expenses associated with the preparation or dissemination of any electronic road show, expenses associated with the production of road show slides and graphics, fees and expenses of any consultants engaged in connection with the road show presentations with the prior approval of the Company, travel and lodging expenses of the representatives and officers of the Company and any such consultants, 50% of the cost of any aircraft chartered in connection with the road show, (ix) the document production charges and

expenses associated with printing this Agreement and (x) all other costs and expenses incident to the performance of the obligations of the Company hereunder for which provision is not otherwise made in this Section. It is understood, however, that except as provided in this Section, Section 11 entitled "Indemnity and Contribution" and the last paragraph of Section 14 below, the Underwriters will pay all of their costs and expenses, including fees and disbursements of their counsel, stock transfer taxes payable on resale of any of the Shares by them and any advertising expenses connected with any offers they may make.

The provisions of this Section shall not supersede or otherwise affect any agreement that the Sellers may otherwise have for the allocation of such expenses among themselves.

10. *Covenants of the Underwriters*. Each Underwriter severally covenants with the Company not to take any action that would result in the Company being required to file with the Commission under Rule 433(d) a free writing prospectus prepared by or on behalf of such Underwriter that otherwise would not be required to be filed by the Company thereunder, but for the action of the Underwriter.

11. *Indemnity and Contribution*. (a) The Company agrees to indemnify and hold harmless each Underwriter, its directors, officers and employees and each person, if any, who controls any Underwriter within the meaning of either Section 15 of the Securities Act or Section 20 of the Exchange Act, and each affiliate of any Underwriter within the meaning of Rule 405 under the Securities Act from and against any and all losses, claims, damages and liabilities (including, without limitation, any legal or other expenses reasonably incurred in connection with defending or investigating any such action or claim) caused by any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement or any amendment thereof, any preliminary prospectus, the Time of Sale Prospectus or any amendment or supplement thereto, any issuer free writing prospectus as defined in Rule 433(h) under the Securities Act, any Company information that the Company has filed, or is required to file, pursuant to Rule 433(d) under the Securities Act, any "road show" as defined in Rule 433(h) under the Securities Act (a "road show"), or the Prospectus or any amendment or supplement thereto, or caused by any omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, except insofar as such losses, claims, damages or liabilities are caused by any such untrue statement or omission or alleged untrue statement or omission based upon information relating to any Underwriter furnished to the Company in writing by such Underwriter through you expressly for use therein.

(b) Each Selling Stockholder agrees, severally and not jointly, to indemnify and hold harmless each Underwriter, each person, if any, who controls any Underwriter within the meaning of either Section 15 of the Securities Act or Section 20 of the Exchange Act, and each affiliate of any Underwriter within the meaning of Rule 405 under the Securities Act from and against any and all losses, claims, damages and liabilities (including, without limitation, any legal or other expenses reasonably incurred in connection with defending or investigating any such action or claim) caused by any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement or any amendment thereof, any preliminary prospectus, the Time of Sale Prospectus or any amendment or supplement thereto, any issuer free writing prospectus as defined in Rule 433(h) under the Securities Act, any Company information that the Company has filed, or is required to file, pursuant to Rule 433(d) under the Securities Act, any road show, or the Prospectus or any amendment or supplement thereto, or caused by any omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, but only with reference to information relating to such Selling Stockholder furnished in writing by or on behalf of such Selling Stockholder expressly for use in the Registration Statement, any preliminary prospectus, the Time of Sale Prospectus, any issuer free writing prospectus, road show or the Prospectus or any amendment or supplement thereto. The liability of each Selling Stockholder under the indemnity agreement contained in this paragraph shall be limited to an amount equal to the aggregate proceeds (net of underwriting discounts and concessions, but before deducting other expenses) received by the Selling Stockholder from the sale of the Shares sold by such Selling Stockholder under this Agreement (the "**Net Proceeds**").

(c) Each Underwriter agrees, severally and not jointly, to indemnify and hold harmless the Company, the Selling Stockholders, each of their respective directors, officers, employees, representatives and agents and each person, if any, who controls the Company or any Selling Stockholder within the meaning of either Section 15 of the Securities Act or Section 20 of the Exchange Act from and against any and all losses, claims, damages and liabilities (including, without limitation, any legal or other expenses reasonably incurred in connection with defending or investigating any such action or claim) caused by any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement or any amendment thereof, any preliminary prospectus, the Time of Sale Prospectus or any amendment or supplement thereto, any issuer free writing prospectus as defined in Rule 433(h) under the Securities Act, any Company information that the Company has filed, or is required to file, pursuant to Rule 433(d) under the Securities Act, any road show or the Prospectus or any amendment supplement thereto, or caused by any omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, but only with reference to information relating

to such Underwriter furnished to the Company in writing by such Underwriter through you expressly for use in the Registration Statement, any preliminary prospectus, the Time of Sale Prospectus, any issuer free writing prospectus, road show, or the Prospectus or any amendment or supplement thereto.

(d) In case any proceeding (including any governmental investigation) shall be instituted involving any person in respect of which indemnity may be sought pursuant to Section 11(a), 11(b) or 11(c), such person (the "**indemnified party**") shall promptly notify the person against whom such indemnity may be sought (the "**indemnifying party**") in writing and the indemnifying party, upon request of the indemnified party, shall retain counsel reasonably satisfactory to the indemnified party to represent the indemnified party and any others the indemnifying party may designate in such proceeding and shall pay the fees and disbursements of such counsel related to such proceeding. In any such proceeding, any indemnified party shall have the right to retain its own counsel, but the fees and expenses of such counsel shall be at the expense of such indemnified party unless (i) the indemnifying party and the indemnified party shall have mutually agreed to the retention of such counsel or (ii) the named parties to any such proceeding (including any impleaded parties) include both the indemnifying party and the indemnified party and representation of both parties by the same counsel would be inappropriate due to actual or potential differing interests between them. It is understood that the indemnifying party shall not, in respect of the legal expenses of any indemnified party in connection with any proceeding or related proceedings in the same jurisdiction, be liable for (i) the fees and expenses of more than one separate firm (in addition to any local counsel) for all Underwriters and all persons, if any, who control any Underwriter within the meaning of either Section 15 of the Securities Act or Section 20 of the Exchange Act or who are affiliates of any Underwriter within the meaning of Rule 405 under the Securities Act, (ii) the fees and expenses of more than one separate firm (in addition to any local counsel) for the Company, its directors, its officers who sign the Registration Statement and each person, if any, who controls the Company within the meaning of either such Section and (iii) the fees and expenses of more than one separate firm (in addition to any local counsel) for all Selling Stockholders and all persons, if any, who control any Selling Stockholder within the meaning of either such Section, and that all such fees and expenses shall be reimbursed as they are incurred. In the case of any such separate firm for the Underwriters and such control persons and affiliates of any Underwriters, such firm shall be designated in writing by Morgan Stanley, J.P. Morgan Securities LLC and Barclays Capital Inc. In the case of any such separate firm for the Company, and such directors, officers and control persons of the Company, such firm shall be designated in writing by the Company. In the case of any such separate firm for the Selling Stockholders and such control persons of any Selling Stockholders, such firm shall be designated in writing by the persons named as attorneys-in-fact for the Selling Stockholders under the Powers of Attorney. The

indemnifying party shall not be liable for any settlement of any proceeding effected without its written consent (which consent shall not be unreasonably withheld), but if settled with such consent or if there be a final judgment for the plaintiff, the indemnifying party agrees to indemnify the indemnified party from and against any loss or liability by reason of such settlement or judgment. Notwithstanding the foregoing sentence, if at any time an indemnified party shall have requested an indemnifying party to reimburse the indemnified party for fees and expenses of counsel as contemplated by the second and third sentences of this paragraph, the indemnifying party agrees that it shall be liable for any settlement of any proceeding effected without its written consent (which consent shall not be unreasonably withheld) if (i) such

settlement is entered into more than 30 days after receipt by such indemnifying party of the aforesaid request and (ii) such indemnifying party shall not have reimbursed the indemnified party in accordance with such request prior to the date of such settlement. No indemnifying party shall, without the prior written consent (which consent shall not be unreasonably withheld) of the indemnified party, effect any settlement of any pending or threatened proceeding in respect of which any indemnified party is or could have been a party and indemnity could have been sought hereunder by such indemnified party, unless such settlement includes an unconditional release of such indemnified party from all liability on claims that are the subject matter of such proceeding.

(e) To the extent the indemnification provided for in Section 11(a), 11(b) or 11(c) above is unavailable to an indemnified party or insufficient in respect of any losses, claims, damages or liabilities referred to therein, then each indemnifying party under such paragraph, in lieu of indemnifying such indemnified party thereunder, shall contribute to the amount paid or payable by such indemnified party as a result of such losses, claims, damages or liabilities (i) in such proportion as is appropriate to reflect the relative benefits received by the indemnifying party or parties on the one hand and the indemnified party or parties on the other hand from the offering of the Shares or (ii) if the allocation provided by clause 11(e)(i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause 11(e)(i) above but also the relative fault of the indemnifying party or parties on the one hand and of the indemnified party or parties on the other hand in connection with the statements or omissions that resulted in such losses, claims, damages or liabilities, as well as any other relevant equitable considerations. The relative benefits received by the Sellers on the one hand and the Underwriters on the other hand in connection with the offering of the Shares shall be deemed to be in the same respective proportions as the net proceeds from the offering of the Shares (before deducting expenses) received by each Seller and the total underwriting discounts and commissions received by the Underwriters, in each case as set forth in the table on the cover of the Prospectus, bear to the aggregate Public Offering Price of the Shares. The relative fault of the Sellers on the one hand and the

Underwriters on the other hand shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Sellers or by the Underwriters and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission. The Underwriters' respective obligations to contribute pursuant to this Section 11 are several in proportion to the respective number of Shares they have purchased hereunder, and not joint. The liability of each Selling Stockholder under the contribution agreement contained in this paragraph shall be limited to an amount equal to such Selling Stockholder' s Net Proceeds less any amounts that such Selling Stockholder is obligated to pay under paragraph (b) above.

(f) The Sellers and the Underwriters agree that it would not be just or equitable if contribution pursuant to this Section 11 were determined by *pro rata* allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation that does not take account of the equitable considerations referred to in Section 11(e) above. The amount paid or payable by an indemnified party as a result of the losses, claims, damages and liabilities referred to in Section 11(e) above shall be deemed to include, subject to the limitations set forth above, any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim. Notwithstanding the provisions of this Section 11, no Underwriter shall be required to contribute any amount in excess of the amount by which the total price at which the Shares underwritten by it and distributed to the public were offered to the public exceeds the amount of any damages that such Underwriter has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. The remedies provided for in this Section 11 are not exclusive and shall not limit any rights or remedies which may otherwise be available to any indemnified party at law or in equity.

(g) The indemnity and contribution provisions contained in this Section 11 and the representations, warranties and other statements of the Company and the Selling Stockholders contained in this Agreement shall remain operative and in full force and effect regardless of (i) any termination of this Agreement, (ii) any investigation made by or on behalf of any Underwriter, any person controlling any Underwriter or any affiliate of any Underwriter, any Selling Stockholder or any person controlling any Selling Stockholder, or the Company, its officers or directors or any person controlling the Company and (iii) acceptance of and payment for any of the Shares.

12. *Termination*. The Underwriters may terminate this Agreement by notice given by you to the Company and the Selling Stockholders, if after the execution and delivery of this Agreement and prior to the Closing Date (i) trading generally shall have been suspended or materially limited on, or by, as the case may be, either of the New York Stock Exchange or the NASDAQ Global Market, (ii) trading of any securities of the Company shall have been suspended on any exchange or in any over-the-counter market, (iii) a material disruption in securities settlement, payment or clearance services in the United States shall have occurred, (iv) any moratorium on commercial banking activities shall have been declared by Federal or New York State authorities or (v) there shall have occurred any outbreak or escalation of hostilities, or any change in financial markets or any calamity or crisis that, in your judgment, is material and adverse and which, singly or together with any other event specified in this clause (v), makes it, in your judgment, impracticable or inadvisable to proceed with the offer, sale or delivery of the Shares on the terms and in the manner contemplated in the Time of Sale Prospectus or the Prospectus.

13. *Effectiveness*. This Agreement shall become effective upon the execution and delivery hereof by the parties hereto.

14. *Defaulting Underwriters*. If, on the Closing Date or an Option Closing Date, as the case may be, any one or more of the Underwriters shall fail or refuse to purchase Shares that it has or they have agreed to purchase hereunder on such date, and the aggregate number of Shares which such defaulting Underwriter or Underwriters agreed but failed or refused to purchase is not more than one-tenth of the aggregate number of the Shares to be purchased on such date, the other Underwriters shall be obligated severally in the proportions that the number of Firm Shares set forth opposite their respective names in Schedule II bears to the aggregate number of Firm Shares set forth opposite the names of all such non-defaulting Underwriters, or in such other proportions as you may specify, to purchase the Shares which such defaulting Underwriter or Underwriters agreed but failed or refused to purchase on such date; *provided* that in no event shall the number of Shares that any Underwriter has agreed to purchase pursuant to this Agreement be increased pursuant to this Section 14 by an amount in excess of their relative proportion of such number of Shares without the written consent of such Underwriter. If, on the Closing Date, any Underwriter or Underwriters shall fail or refuse to purchase Firm Shares and the aggregate number of Firm Shares with respect to which such default occurs is more than one-tenth of the aggregate number of Firm Shares to be purchased on such date, and arrangements satisfactory to you, the Company and the Selling Stockholders for the purchase of such Firm Shares are not made within 36 hours after such default, this Agreement shall terminate without liability on the part of any non-defaulting Underwriter, the Company or the Selling Stockholders. In any such case either you or the relevant Sellers shall have the right to postpone the

Closing Date, but in no event for longer than seven days, in order that the required changes, if any, in the Registration Statement, in the Time of Sale Prospectus, in the Prospectus or in any other documents or arrangements may be effected. If, on an Option Closing Date, any Underwriter or Underwriters shall fail or refuse to purchase Additional Shares and the aggregate number of Additional Shares with respect to which such default occurs is more than one-tenth of the aggregate number of Additional Shares to be purchased on such Option Closing Date, the non-defaulting Underwriters shall have the option to (i) terminate their obligation hereunder to purchase the Additional Shares to be sold on such Option Closing Date or (ii) purchase not less than the number of Additional Shares that such non-defaulting Underwriters would have been obligated to purchase in the absence of such default. Any action taken under this paragraph shall not relieve any defaulting Underwriter from liability in respect of any default of such Underwriter under this Agreement.

If this Agreement shall be terminated by the Underwriters, or any of them, because of any failure or refusal on the part of any Seller to comply with the terms or to fulfill any of the conditions of this Agreement, or if for any reason any Seller shall be unable to perform its obligations under this Agreement, the Sellers will reimburse the Underwriters or such Underwriters as have so terminated this Agreement with respect to themselves, severally, for all out-of-pocket expenses (including the fees and disbursements of their counsel) reasonably incurred by such Underwriters in connection with this Agreement or the offering contemplated hereunder.

15. *Entire Agreement*. (a) This Agreement, together with any contemporaneous written agreements and any prior written agreements (to the extent not superseded by this Agreement) that relate to the offering of the Shares, represents the entire agreement between

the Company and the Selling Stockholders, on the one hand, and the Underwriters, on the other, with respect to the preparation of any preliminary prospectus, the Time of Sale Prospectus, the Prospectus, the conduct of the offering, and the purchase and sale of the Shares.

(b) The Company acknowledges that in connection with the offering of the Shares: (i) the Underwriters have acted at arms length, are not agents of, and owe no fiduciary duties to, the Company, the Selling Stockholders or any other person, (ii) the Underwriters owe the Company and the Selling Stockholders only those duties and obligations set forth in this Agreement and prior written agreements (to the extent not superseded by this Agreement), if any, and (iii) the Underwriters may have interests that differ from those of the Company. The Company and the Selling Stockholders waive to the full extent permitted by applicable law any claims they may have against the Underwriters arising from an alleged breach of fiduciary duty in connection with the offering of the Shares.

16. *Counterparts*. This Agreement may be signed in two or more counterparts, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument.

17. *Applicable Law*. This Agreement shall be governed by and construed in accordance with the internal laws of the State of New York.

18. *Headings*. The headings of the sections of this Agreement have been inserted for convenience of reference only and shall not be deemed a part of this Agreement.

19. *Notices.* All communications hereunder shall be in writing and effective only upon receipt and if to the Underwriters shall be delivered, mailed or sent to you in care of Morgan Stanley & Co. LLC, 1585 Broadway, New York, New York 10036, Attention: Equity Syndicate Desk, with a copy to the Legal Department; J.P. Morgan Securities LLC, 383 Madison Avenue, New York, New York 10179 (fax: (212) 622-8358), Attention: Equity Syndicate Desk; and Barclays Capital Inc., 745 Seventh Avenue, New York, New York 10019, Attention: Syndicate Registration (Fax: 646-834-8133), with a copy, in the case of any notice pursuant to Section 10(d), to the Director of Litigation, Office of the General Counsel, Barclays Capital Inc., 745 Seventh Avenue, New York, New York 10019; if to the Company shall be delivered, mailed or sent to Intermolecular, Inc., 3011 N. First Street, San Jose, California 95134, Attention: General Counsel and Senior Vice President of Intellectual Property, with a copy (which shall not constitute notice) to Latham & Watkins, 140 Scott Drive, Menlo Park, CA 94025, Attention: Patrick Pohlen; and if to the Selling Stockholders shall be delivered, mailed or sent to Symyx Technologies, Inc., c/o Accelrys, Inc., 10188 Telesis Court, Suite 100, San Diego, CA 92121, Attention: General Counsel, with a copy (which shall not constitute notice) to Paul Hastings LLP, 4747 Executive Drive, 12th Floor, San Diego, CA 92121, Attention: Scott Oross; and Intermolecular, Inc., 3011 N. First Street, San Jose, California 95134, Attention: David Lazovsky, with a copy (which shall not constitute notice) to Latham & Watkins, 140 Scott Drive, Menlo Park, CA 94025, Attention: Patrick Pohlen.

Very truly yours,

INTERMOLECULAR, INC.

By: _____

Name: David Lazovsky
Title: President and Chief Executive Officer

The Selling Stockholders named in Schedule I hereto, acting severally

By: _____
Attorney-in Fact

Accepted as of the date hereof

Morgan Stanley & Co. LLC
J.P. Morgan Securities LLC
Barclays Capital Inc.

Acting severally on behalf of themselves and the several Underwriters named in Schedule II hereto

By: Morgan Stanley & Co. LLC

By: _____
Name:
Title:

By: J.P. Morgan Securities LLC

By: _____
Name:
Title:

By: Barclays Capital Inc.

By: _____
Name:
Title:

SCHEDULE I

Selling Stockholder	Number of Firm Shares To Be Sold	Number of Additional Shares To Be Sold
Symyx Technologies, Inc.		
David E. Lazovsky		
Peter L. Eidelman		

Tony P. Chiang		
John R. Behnke		
Total:		

SCHEDULE II

Underwriter	Number of Firm Shares To Be Purchased
Morgan Stanley & Co. LLC	
J.P. Morgan Securities LLC	
Barclays Capital Inc.	
Pacific Crest Securities LLC	
Needham & Company, LLC	
Total:	

SCHEDULE III

Time of Sale Prospectus

1. Preliminary Prospectus issued [date]

2. [ ]

Exhibit 3.2

INTERMOLECULAR, INC.

SIXTH RESTATED CERTIFICATE OF INCORPORATION

Intermolecular, Inc., a corporation organized and existing under and by virtue of the Delaware General Corporation Law, hereby certifies as follows:

The name of this corporation is Intermolecular, Inc. The original Certificate of Incorporation of this corporation was filed with the Secretary of State of the State of Delaware on June 16, 2004 under the name The BEP Group, Inc.

The Sixth Restated Certificate of Incorporation in the form of Exhibit A attached hereto has been duly adopted in accordance with the provisions of Sections 242, 245 and 228 of the General Corporation Law of the State of Delaware.

The text of the Sixth Restated Certificate of Incorporation as heretofore amended or supplemented is hereby restated and further amended to read in its entirety as set forth in Exhibit A attached hereto.

IN WITNESS WHEREOF, this Sixth Restated Certificate of Incorporation has been signed this day of , 2011.

INTERMOLECULAR, INC.

By: _____
David E. Lazovsky, President

EXHIBIT A

SIXTH RESTATED CERTIFICATE OF INCORPORATION

OF

INTERMOLECULAR, INC.

FIRST

The name of this corporation is Intermolecular, Inc. (the "**Company**").

SECOND

The address of the Company' s registered office in the State of Delaware is 1209 Orange Street in the City of Wilmington, County of New Castle, 19801-1120. The name of its registered agent at such address is The Corporation Trust Company.

THIRD

The purpose of the Company is to engage in any lawful act or activity for which a corporation may be organized under the General Corporation Law of Delaware.

FOURTH

A. The number and classes of capital stock of the Company shall be as follows:

1. Reverse Stock Split. Without any further action on the part of any stockholders of the Company, effective immediately prior to the effectiveness of the Registration Statement on Form S-1 (File No. 333-175877) originally filed by the Company on July 29, 2011, as amended through the time of effectiveness, a reverse stock split of this Company' s outstanding Common Stock (as defined below) shall be effected, whereby each two shares of issued and outstanding Common Stock shall be reconstituted and exchanged for one share of Common Stock (the "**Reverse Stock Split**"). Such conversions shall be effected on a certificate-by-certificate basis.

Each stock certificate representing shares of Common Stock prior to the Reverse Stock Split shall thereafter represent that number of shares of Common Stock for which the shares of Common Stock represented by such certificate prior to the Reverse Stock Split shall have been reconstituted and exchanged; provided, however, that each person holding of record a stock certificate or certificates that represented shares of Common Stock shall receive, upon surrender of such certificate or certificates, unless otherwise instructed by such stockholder, certificates or book entry shares evidencing and representing the number of shares of Common Stock to which such person is entitled. Any certificate for one or more shares of Common Stock not so

surrendered shall be deemed to represent that number of shares of Common Stock for which the shares of Common Stock represented by such certificate prior to the Reverse Stock Split shall have been reconstituted and exchanged.

No fractional shares shall be issued for shares of Common Stock pursuant to the Reverse Stock Split. If the Reverse Stock Split would result in the issuance of any fractional share, the Company shall, in lieu of issuing any fractional share, pay cash equal to the product of (i) such fraction and (ii) the fair market value of one share of Common Stock on the date of the Reverse Stock Split (as determined by the Board of Directors).

2. Classes of Stock. The aggregate number of shares that the Company shall have authority to issue is 164,600,000, divided into 105,000,000 shares of Common Stock each with the par value of $0.001 per share (the "**Common Stock**"), and 59,600,000 shares of Preferred Stock each with the par value of $0.001 per share (the "**Preferred Stock**"). The Preferred Stock may be issued in one or more series, of which five such series shall be denominated the "**Series A Preferred**," "**Series B Preferred**," "**Series C Preferred**," "**Series D Preferred**" and "**Series E Preferred**." The Series A Preferred shall consist of 8,399,831 shares, the Series B Preferred shall consist of 22,949,711 shares, the Series C Preferred shall consist of 14,686,698 shares, the Series D Preferred shall consist of 6,575,832 shares and the Series E Preferred shall consist of 6,618,127 shares.

B. The terms and provisions of Preferred Stock are as follows:

1. Dividends.

(a) Treatment of Preferred Stock. The Preferred Stock shall be entitled to receive dividends of (i) in the case of the Series A Preferred, $0.0076192 per share (as adjusted for stock splits, stock dividends, reverse stock splits, stock combinations, reorganizations and the like with respect to the Series A Preferred), (ii) in the case of the Series B Preferred, $0.035556 per share (as adjusted for stock splits, stock dividends, reverse stock splits, stock combinations, reorganizations and the like with respect to the Series B Preferred), (iii) in the case of the Series C Preferred, $0.150068 per share (as adjusted for stock splits, stock dividends, reverse stock splits, stock combinations, reorganizations and the like with respect to the Series C Preferred), (iv) in the case of the Series D Preferred, $0.2433148 per share (as adjusted for stock splits, stock dividends, reverse stock splits, stock combinations, reorganizations and the like with respect to the Series D Preferred) and (v) in the case of the Series E Preferred, $0.3323296 per share (as adjusted for stock splits, stock dividends, reverse stock splits, stock combinations, reorganizations and the like with respect to the Series E Preferred) per annum, out of any assets at the time legally available therefore, when, as and if declared by the Board of Directors of the Company (the "Board of Directors"), prior and in preference to the Common Stock. Any partial payment of such dividends shall be paid ratably on the Preferred Stock. No dividends other

than those payable solely in Common Stock shall be paid on any Common Stock unless and until (i) dividends have been paid on the Series A Preferred in a cumulative total amount equal to the product of $0.0076192 per share (as adjusted for stock splits, stock dividends, reverse stock

splits, stock combinations, reorganizations and the like with respect to the Series A Preferred) multiplied by the number of years and portion thereof (rounded up to a whole integer) elapsed since the first original issuance of the Series A Preferred; (ii) dividends have been paid on the Series B Preferred in a cumulative total amount equal to the product of $0.035556 per share (as adjusted for stock splits, stock dividends, reverse stock splits, stock combinations, reorganizations and the like with respect to the Series B Preferred) multiplied by the number of years and portion thereof (rounded up to a whole integer) elapsed since the first original issuance of the Series B Preferred; (iii) dividends have been paid on the Series C Preferred in a cumulative total amount equal to the product of $0.150068 per share (as adjusted for stock splits, stock dividends, reverse stock splits, stock combinations, reorganizations and the like with respect to the Series C Preferred) multiplied by the number of years and portion thereof (rounded up to a whole integer) elapsed since the first original issuance of the Series C Preferred; (iv) dividends have been paid on the Series D Preferred in a cumulative total amount equal to the product of $0.2433148 per share (as adjusted for stock splits, stock dividends, reverse stock splits, stock combinations, reorganizations and the like with respect to the Series D Preferred) multiplied by the number of years and portion thereof (rounded up to a whole integer) elapsed since the first original issuance of the Series D Preferred; (v) dividends have been paid on the Series E Preferred in a cumulative total amount equal to the product of $0.3323296 per share (as adjusted for stock splits, stock dividends, reverse stock splits, stock combinations, reorganizations and the like with respect to the Series E Preferred) multiplied by the number of years and portion thereof (rounded up to a whole integer) elapsed since the first original issuance of the Series E Preferred; and (vi) an additional dividend is paid with respect to all outstanding shares of Preferred Stock in an amount equal to or greater than the aggregate amount of dividends which would be payable to the holders of Preferred Stock if, immediately prior to such dividend payment on Common Stock, such shares of Preferred Stock had been converted into Common Stock. The Board of Directors is under no obligation to declare dividends, no rights shall accrue to the holders of Preferred Stock if dividends are not declared, and any dividends declared shall be noncumulative. The Company shall make no Distribution (as defined below) to the holders of shares of Common Stock except in accordance with this Section 1(a).

(b) Distribution. "**Distribution**" means the transfer of cash or property without consideration, whether by way of dividend or otherwise, or the purchase of shares of the Company (other than in connection with the repurchase of shares of Common Stock issued to or held by employees, consultants, officers or directors at a price not greater than the amount paid by such persons for such shares upon termination of their employment or services pursuant to agreements providing for the right of said repurchase or upon exercise of a right of first refusal approved by the Board of Directors, with the approval of at least 60% of the directors then serving on the Board of Directors) for cash or property, in each case, other than in accordance with Section 2 below.

(c) Consent to Certain Repurchases. As authorized by Section 402.5(c) of the General Corporation Law of California, Sections 502 and 503 of the General Corporation Law of California, to the extent otherwise applicable, shall not apply with respect to Distributions made by the Company in connection with the repurchase of shares of Common Stock issued to or held by employees, consultants, officers or directors at a price not greater than the amount paid by such person for such shares upon termination of their employment or services pursuant to

agreements providing for the right of said repurchase or upon exercise of a right of first refusal approved by the Board of Directors, with the approval of at least 60% of the directors then serving on the Board of Directors.

2. Liquidation Rights.

(a) Liquidation Preference. In the event of any Liquidation (as defined below), either voluntary or involuntary, the holders of the Preferred Stock shall be entitled to receive, out of the assets of the Company, the Liquidation Preference specified for each

share of Preferred Stock then held by them before any payment shall be made or any assets distributed to the holders of Common Stock. "**Liquidation Preference**" shall mean: (i) in the case of Series A Preferred, $0.09524 per share (as adjusted for stock splits, stock dividends, reverse stock splits, stock combinations, reorganizations and the like with respect to the Series A Preferred); (ii) in the case of the Series B Preferred, $0.44445 per share (as adjusted for stock splits, stock dividends, reverse stock splits, stock combinations, reorganizations and the like with respect to the Series B Preferred); (iii) in the case of the Series C Preferred, $1.87585 per share (as adjusted for stock splits, stock dividends, reverse stock splits, stock combinations, reorganizations and the like with respect to the Series C Preferred); (iv) in the case of the Series D Preferred, $3.04144 per share (as adjusted for stock splits, stock dividends, reverse stock splits, stock combinations, reorganizations and the like with respect to the Series D Preferred); and (v) in the case of the Series E Preferred, $4.15412 per share (as adjusted for stock splits, stock dividends, reverse stock splits, stock combinations, reorganizations and the like with respect to the Series E Preferred), plus, in each case, declared but unpaid dividends on such share. If upon the Liquidation, the assets to be distributed among the holders of the Preferred Stock are insufficient to permit the payment to such holders of the full Liquidation Preference for their shares, then the entire assets of the Company legally available for distribution shall be distributed with equal priority and ratably among the holders of the Preferred Stock in proportion to the preferential amount each such holder is otherwise entitled to receive.

(b) Participation. Upon the completion of the distribution required by Section 2(a) above, the remaining assets of the Company available for distribution to stockholders shall be distributed among the holders of Preferred Stock and the Common Stock with equal priority and pro rata based on the number of shares of Common Stock held by each (assuming conversion of all outstanding shares of Preferred Stock to Common Stock at the then applicable conversion rate) until such holders of Preferred Stock shall have received an aggregate of: (i) in the case of the Series A Preferred, $0.28572 per share (including amounts paid pursuant to Section 2(a) above) (as adjusted for stock splits, stock dividends, reverse stock splits, stock combinations, reorganizations and the like); (ii) in the case of the Series B Preferred, $1.33335 per share (including amounts paid pursuant to Section 2(a) above) (as adjusted for stock splits, stock dividends, reverse stock splits, stock combinations, reorganizations and the like); (iii) in the case of the Series C Preferred, $5.62755 per share (including amounts paid pursuant to Section 2(a) above) (as adjusted for stock splits, stock dividends, reverse stock splits, stock combinations, reorganizations and the like); (iv) in the case of the Series D Preferred, $9.124306 per share (including amounts paid pursuant to Section 2(a) above) (as adjusted for stock splits, stock dividends, reverse stock splits, stock combinations, reorganizations and the like); and (v) in the case of the Series E Preferred, $12.46236 per share (including amounts paid

pursuant to Section 2(a) above) (as adjusted for stock splits, stock dividends, reverse stock splits, stock combinations, reorganizations and the like).

(c) Remaining Assets. After the payment to the holders of Preferred Stock of the full preferential amount specified in Section 2(a) above, and the payment to the holders of Preferred Stock and Common Stock specified in Section 2(b) above, no further payments shall be made to the holders of Preferred Stock by reason thereof and any remaining assets of the Company shall be distributed with equal priority and pro rata among the holders of the Company' s Common Stock based on the number of shares of Common Stock held by each.

Notwithstanding the above, for purposes of determining the amount each holder of Preferred Stock is entitled to receive with respect to a Liquidation, each such holder of shares of Preferred Stock shall be deemed to have converted (regardless of whether such holder actually converted) such holder' s shares of Preferred Stock into shares of Common Stock immediately prior to the Liquidation if, as a result of an actual conversion, such holder would receive, in the aggregate, an amount greater than the amount that would be distributed to such holder if such holder did not convert such Preferred Stock into shares of Common Stock. If any such holder shall be deemed to have converted shares of Preferred Stock into Common Stock pursuant to this paragraph or has actually converted shares of Preferred Stock into Common Stock, then such holder shall not be entitled to receive any distribution that would otherwise be made to holders of Preferred Stock that have not converted (and have not been deemed to have converted) into shares of Common Stock with respect to such shares

(d) Liquidation. Unless otherwise determined in writing by the holders of an aggregate of at least 60% of the Preferred Stock then outstanding (voting together as a single class and not as separate series, and on an as-if converted to Common Stock basis), a "**Liquidation**" shall be deemed to be occasioned by, or to include: (i) the liquidation, dissolution or winding up of the Company; (ii) the

acquisition of the Company by another entity by means of any transaction or series of related transactions (including, without limitation, any reorganization, merger or consolidation); (iii) a sale of all or substantially all of the assets of the Company; (iv) the closing of the transfer, in one transaction or a series of related transactions, to a person or group of affiliated persons (other than an underwriter of the Company' s securities), of the Company' s securities if, after such closing, such person or group of affiliated persons would hold 50% or more of the outstanding voting stock of the Company; or (v) an exclusive license of all or substantially all of the Company' s intellectual property; unless with respect to (ii) above, the Company' s stockholders of record as constituted immediately prior to such transaction or series of related transactions will, immediately after such transaction (by virtue of securities retained or issued as consideration in such transaction or series of related transactions) hold at least a majority of the voting power of the surviving or acquiring entity (or parent thereof) in the same relative percentages after such transaction or series of related transactions as immediately prior to such transaction or series of related transactions. Notwithstanding the prior sentence, the sale of shares of Preferred Stock by the Company in a financing transaction shall not be deemed a "Liquidation."

(e) Determination of Value if Proceeds Other than Cash. In any Liquidation, if the proceeds received by the Company or its stockholders are other than cash, its value will be

deemed its fair market value as reasonably determined by the Board of Directors, with the approval of at least 60% of the directors then serving on the Board of Directors. Notwithstanding the foregoing, any securities shall be valued as follows:

(i) Securities not subject to investment letter or other similar restrictions on free marketability covered by (ii) below:

(A) If traded on a securities exchange, the value shall be deemed to be the average of the closing prices of the securities on such exchange or system over the 20 trading-day period ending three trading days prior to the closing of the Liquidation;

(B) If actively traded over-the-counter, the value shall be deemed to be the average of the closing bid or sale prices (whichever is applicable) over the 20 trading-day period ending three trading days prior to the closing of the Liquidation; and

(C) If there is no active public market, the value shall be the fair market value thereof, as reasonably determined by the Board of Directors, with the approval of at least 60% of the directors then serving on the Board of Directors.

(ii) The method of valuation of securities subject to investment letter or other restrictions on free marketability (other than restrictions arising solely by virtue of a stockholder' s status as an affiliate or former affiliate) shall be to make an appropriate discount from the market value determined as above in (i) (A), (B) or (C) to reflect the approximate fair market value thereof, as determined by the Board of Directors.

3. Conversion. The Preferred Stock shall have conversion rights as follows:

(a) Right to Convert. Each share of Preferred Stock shall be convertible, at the option of the holder thereof, at any time after the date of issuance of such share at the office of the Company or any transfer agent for the Preferred Stock. Each share of Preferred Stock shall be convertible into that number of fully-paid and nonassessable shares of Common Stock that is equal to: (i) in the case of the Series A Preferred, $0.09524 (as adjusted for stock splits, stock dividends, reverse stock splits, stock combinations, reorganizations and the like with respect to the Series A Preferred) divided by the Series A Conversion Price (as hereinafter defined); (ii) in the case of the Series B Preferred, $0.44445 (as adjusted for stock splits, stock dividends, reverse stock splits, stock combinations, reorganizations and the like with respect to the Series B Preferred) divided by the Series B Conversion Price; (iii) in the case of the Series C Preferred, $1.87585 (as adjusted for stock splits, stock dividends, reverse stock splits, stock combinations, reorganizations and the like with respect to the Series C Preferred) divided by the Series C Conversion Price; (iv) in the case of the Series D Preferred, $3.04144 (as adjusted for stock splits, stock dividends, reverse stock splits, stock combinations, reorganizations and the like with respect to the Series D Preferred) divided by the Series D

Conversion Price; and (v) in the case of the Series E Preferred, $4.15412 (as adjusted for stock splits, stock dividends, reverse stock splits, stock combinations, reorganizations and the like with respect to the Series E Preferred) divided by the Series E Conversion Price. The "**Series A Conversion Price**" shall initially be $0.09524, and shall be subject to adjustment as provided herein. The "**Series B Conversion Price**" shall initially be $0.44445, and shall be subject to adjustment as provided

herein. The "**Series C Conversion Price**" shall initially be $1.87585, and shall be subject to adjustment as provided herein. The "**Series D Conversion Price**" shall initially be $3.04144, and shall be subject to adjustment as provided herein. The "**Series E Conversion Price**" shall initially be $4.15412, and shall be subject to adjustment as provided herein.

(b) Automatic Conversion. Each share of Preferred Stock shall automatically be converted into shares of Common Stock at the then effective Series A Conversion Price, Series B Conversion Price, Series C Conversion Price, Series D Conversion Price or Series E Conversion Price, as applicable, for such share immediately upon the earlier to occur of: (1) the affirmative vote of more than 60% of the Preferred Stock (voting together as a single class and not as separate series, and on as-if converted to Common Stock basis), or (2) the consummation of a firmly underwritten public offering pursuant to the Securities Act of 1933, as amended (the "**Securities Act**"), on Form S-1 or Form SB-2 (as defined in the Securities Act) or any successor form, provided, however, that the aggregate gross proceeds to the Company in such offering (prior to underwriting discounts and commissions) are not less than $30,000,000 and at a price per share not less than $5.40 per share of Common Stock (as adjusted for stock splits, stock dividends, reverse stock splits, stock combinations, reorganizations and the like).

(c) Mechanics of Conversion. No fractional shares of Common Stock shall be issued upon conversion of Preferred Stock. In lieu of any fractional shares to which the holder would otherwise be entitled, the Company shall pay the fair market value cash equivalent of such fractional share as determined by the Board of Directors, with the approval of at least 60% of the directors then serving on the Board of Directors. Conversions of shares of Preferred Stock into shares of Common Stock shall be effected on a certificate-by-certificate basis. Before any holder of Preferred Stock shall be entitled to convert the same into full shares of Common Stock, and to receive certificate(s) therefor, it shall surrender the Preferred Stock certificate or certificates, duly endorsed, at the office of the Company or of any transfer agent for the Preferred Stock, and shall give written notice to the Company at such office that such holder elects to convert such shares; provided, however, that in the event of an automatic conversion pursuant to paragraph 3(b) above, the outstanding shares of Preferred Stock shall be converted automatically without any further action by the holders of such shares and whether or not the certificates representing such shares are surrendered to the Company or its transfer agent; provided further, however, that the Company shall not be obligated to issue certificates evidencing the shares of Common Stock issuable upon such automatic conversion unless either the certificates evidencing such shares of Preferred Stock are delivered to the Company or its transfer agent as provided above, or the holder notifies the Company or its transfer agent that such certificates have been lost, stolen or destroyed and executes an agreement reasonably satisfactory to the Company to indemnify the Company from any loss incurred by it in connection with such certificates.

The Company shall, as soon as practicable after delivery of the Preferred Stock certificate(s) to the Company, issue and deliver at such office to such holder of Preferred Stock, a certificate or certificates for the number of shares of Common Stock to which such holder is entitled and a check payable to the holder in the amount of any cash amounts payable as the result of a conversion into fractional shares of Common Stock, plus any declared or accumulated but unpaid dividends on the converted Preferred Stock. Such conversion shall be deemed to have been made immediately prior to the close of business on the date of such surrender of the

shares of Preferred Stock to be converted, and the person or persons entitled to receive the shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder or holders of such shares of Common Stock on such date; provided, however, that if the conversion is in connection with an underwritten offering of securities registered pursuant to the Securities Act, the conversion may, at the option of any holder tendering Preferred Stock for conversion, be conditioned upon the closing of the sale of securities pursuant to such

offering, in which event the person(s) entitled to receive the Common Stock issuable upon such conversion of Preferred Stock shall not be deemed to have converted such Preferred Stock until immediately prior to the closing of the sale of such securities.

(d) Adjustments for Subdivisions or Combinations of Common Stock. If on or after the date of the filing of this Sixth Restated Certificate of Incorporation (the "**Filing Date**") the outstanding shares of Common Stock shall be subdivided (by stock split, stock dividend or otherwise), into a greater number of shares of Common Stock, or the Company fixes a record date for the determination of holders of Common Stock entitled to receive a dividend or other distribution payable in additional shares of Common Stock or other securities or rights convertible into, or entitling the holder thereof to receive directly or indirectly, additional shares of Common Stock without payment of any consideration by such holder for such additional shares of Common Stock (including the additional shares of Common Stock issuable upon conversion or exercise thereof), then, as of such record date (or the date of such dividend distribution, split or subdivision if no record date is fixed), the Series A Conversion Price, Series B Conversion Price, Series C Conversion Price, Series D Conversion Price or Series E Conversion Price, as applicable, in effect immediately prior to such subdivision shall, concurrently with the effectiveness of such subdivision, be proportionately decreased. If on or after the Filing Date the outstanding shares of Common Stock shall be combined (by reclassification or otherwise, including without limitation the Reverse Stock Split) into a lesser number of shares of Common Stock, the Series A Conversion Price, Series B Conversion Price, Series C Conversion Price, Series D Conversion Price or Series E Conversion Price, as applicable, in effect immediately prior to such combination shall, concurrently with the effectiveness of such combination, be proportionately increased.

(e) Adjustments for Reclassification, Exchange and Substitution. If the Common Stock issuable upon conversion of the Preferred Stock shall be changed into the same or a different number of shares of any other class or classes of stock or other securities or property of the Company or otherwise, whether by capital reorganization, reclassification or otherwise (other than a subdivision or combination of shares provided for above or a Liquidation), concurrently with the effectiveness of such reorganization, reclassification or other event, the Preferred Stock shall be convertible into, in lieu of the number of shares of Common Stock which the holders would otherwise have been entitled to receive, a number of shares of such other class or classes of stock or a number or amount of such other securities or property of the Company or otherwise equivalent to that received by a holder of the number of shares of Common Stock that were subject to receipt by the holders of Preferred Stock upon conversion of the Preferred Stock immediately prior to such change.

(f) Adjustments for Reorganization, Merger, Consolidation or Sale of Assets. If the Common Stock issuable upon conversion of the Preferred Stock shall be changed into the

same or a different number of shares of any other class or classes of stock or other securities or property of the Company or otherwise, whether by a merger or consolidation of this Company with or into another entity, or the sale of all or substantially all of this Company' s properties and assets to any other person or entity (other than as provided for elsewhere in this Section 3 or a transaction subject to Section 2 above) then, as a part of such reorganization, merger, consolidation or sale, provision shall be made so that the holders of Preferred Stock shall thereafter be entitled to receive upon conversion of the then outstanding Preferred Stock, the number of shares of stock or other securities or property of the Company or otherwise, or of the successor entity resulting from such merger or consolidation or sale (or parent thereof), to which a holder of Common Stock deliverable upon conversion would have been entitled on such capital reorganization, merger consolidation or sale. In any such case, appropriate adjustment shall be made in the application of the provisions of this Section 3 with respect to the rights of the holders of the then outstanding Preferred Stock after the reorganization, merger, consolidation or sale to the end that the provisions of this Section 3 (including adjustments of the Series A Conversion Price, Series B Conversion Price, Series C Conversion Price, Series D Conversion Price or Series E Conversion Price then in effect, as applicable, and the number of shares issuable upon conversion of the Preferred Stock) shall be applicable after that event as nearly equivalent as may be practicable.

(g) Adjustments for Dilutive Issuances.

(i) After the Filing Date, if the Company shall issue or sell any shares of Common Stock (as actually issued or sold or, pursuant to paragraph (iii) below, deemed to be issued or sold) for a consideration per share less than the Series A Conversion Price, Series B Conversion Price, Series C Conversion Price, Series D Conversion Price or Series E Conversion Price, as applicable, in effect immediately prior to such issue or sale, then immediately upon such issue or sale the Series A Conversion Price, Series B Conversion Price,

Series C Conversion Price, Series D Conversion Price or Series E Conversion Price, as applicable, shall be reduced to a price (calculated to the nearest one-thousandth of a cent) determined by multiplying the Series A Conversion Price, Series B Conversion Price, Series C Conversion Price, Series D Conversion Price or Series E Conversion Price, as applicable, in effect immediately prior to such issue or sale by a fraction, the numerator of which shall be equal to the number of shares of Calculated Securities (as defined below) outstanding immediately prior to such issue or sale plus the number of shares of Common Stock which the aggregate consideration received by the Company for the total number of shares of Common Stock so issued or sold (or, pursuant to paragraph (iii) below, deemed to have been issued or sold) would purchase at the Series A Conversion Price, Series B Conversion Price, Series C Conversion Price, Series D Conversion Price or Series E Conversion Price, as applicable, in effect immediately prior to such issuance or sale, and the denominator of which shall be equal to the number of shares of Calculated Securities outstanding immediately prior to such issue or sale plus the number of shares of Common Stock so issued or sold. "**Calculated Securities**" means (A) all shares of Common Stock actually outstanding and (B) the number of shares of Common Stock ultimately deliverable upon full exercise, exchange or conversion of all outstanding Convertible Securities (as defined below). "**Convertible Securities**" shall mean any bonds, debentures, notes or other evidences of indebtedness, and any options, warrants, shares

(including, but not limited to, shares of Preferred Stock) or any other securities convertible into, exercisable for, or exchangeable for Common Stock, directly or indirectly.

(ii) For the purposes of paragraph (i) above, none of the following issuances shall be considered the issuance or sale of Common Stock (including pursuant to paragraph (iii) below):

(A) The issuance of Common Stock upon the conversion of any Convertible Securities outstanding as of the Filing Date.

(B) The issuance of any Common Stock or Convertible Securities as a dividend on the Company' s capital stock for which appropriate adjustment is otherwise made pursuant to this Section 3 or in connection with any stock split, stock dividend or recapitalization of the Company.

(C) The issuance of shares of Common Stock or options, warrants or rights to purchase Common Stock to employees, consultants, officers or directors for the primary purpose of soliciting or retaining their services pursuant to any stock plans or other arrangements approved by the Board of Directors, with the approval of at least 60% of the directors then serving on the Board of Directors.

(D) The issuance of shares of Common Stock or Convertible Securities to lenders, financial institutions, equipment lessors or real estate lessors to the Company in connection with bona fide borrowing or leasing transactions primarily for other than equity financing purposes and approved by the Board of Directors, with the approval of at least 60% of the directors then serving on the Board of Directors.

(E) The issuance of Common Stock or Convertible Securities pursuant to the bona fide acquisition of another entity by the Company by merger, purchase of all or substantially all of the assets or shares, or other reorganization whereby the Company or its stockholders will own not less than a majority of the voting power of the surviving or successor business (or parent thereof), or the acquisition of technology or other intellectual property by outright purchase or exclusive license, in each case as approved by the Board of Directors, with the approval of at least 60% of the directors then serving on the Board of Directors.

(F) The issuance of shares of Common Stock or Convertible Securities to vendors or customers of the Company, or to other persons in similar commercial or arrangements with the Company primarily for other than equity financing purposes and approved by the Board of Directors, with the approval of at least 60% of the directors then serving on the Board of Directors.

(G) The issuance of shares of Common Stock or Convertible Securities in connection with corporate partnering transactions primarily for other than equity financing purposes and approved by the Board of Directors, with the approval of at least 60% of the directors then serving on the Board of Directors.

(H) The issuance of shares of Common Stock or Convertible Securities in a transaction other than as described in (A) through (G) above, provided that such issuance is approved by at least a majority of the directors elected by the holders of Preferred Stock then serving on the Board of Directors.

(iii) For the purposes of paragraphs (i) and (ii) above, in the case of the issuance of options or warrants to purchase or rights to subscribe for Common Stock, securities by their terms convertible into or exchangeable for Common Stock or options or warrants to purchase or rights to subscribe for such convertible or exchangeable securities, the following subparagraphs (A) to (F), inclusive, shall also apply for purposes of determining the number of shares of Common Stock issued and the consideration paid therefore:

(A) The aggregate maximum number of shares of Common Stock deliverable upon exercise (assuming the satisfaction of any conditions to exercisability, including without limitation, the passage of time, but without taking into account potential antidilution adjustments) of options or warrants to purchase or rights to subscribe for Common Stock shall be deemed to have been issued at the time such options, warrants or rights were issued and for a consideration equal to the consideration (determined in the manner provided in subsection 3(g)(iii)(F)), if any, received by the Company upon the issuance of such options, warrants or rights plus the minimum exercise price provided in such options, warrants or rights (without taking into account potential antidilution adjustments) for the Common Stock covered thereby.

(B) The aggregate maximum number of shares of Common Stock deliverable upon conversion of, or in exchange for (assuming the satisfaction of any conditions to convertibility or exchangeability, including, without limitation, the passage of time, but without taking into account potential antidilution adjustments) any convertible or exchangeable securities or upon the exercise of options or warrants to purchase or rights to subscribe for such convertible or exchangeable securities and subsequent conversion or exchange thereof shall be deemed to have been issued at the time such securities were issued or such options, warrants or rights were issued and for a consideration equal to the consideration, if any, received by this corporation for any such securities and related options, warrants or rights (excluding any cash received on account of accrued interest or accrued dividends), plus the minimum additional consideration, if any, to be received by this corporation (without taking into account potential antidilution adjustments) upon the conversion or exchange of such securities and the exercise of any such options, warrants or rights (the consideration in each case to be determined in the manner provided in subsection 3(g)(iii)(F)).

(C) In the event of any change in the number of shares of Common Stock deliverable or in the consideration payable to the Company upon exercise of such options, warrants or rights or upon conversion of or in exchange for such convertible or exchangeable securities, the Series A Conversion Price, Series B Conversion Price, Series C Conversion Price, Series D Conversion Price or Series E Conversion Price, as applicable, to the extent in any way affected by or computed using such options, warrants, rights or securities, shall be recomputed to reflect such change, but no further adjustment shall be made for the actual issuance of Common Stock or any payment of such consideration upon the exercise of any such options, warrants or rights or the conversion or exchange of such securities.

(D) Upon the expiration of any such options, warrants or rights, the termination of any such rights to convert or exchange or the expiration of any options, warrants or rights related to such convertible or exchangeable securities, the Series A Conversion Price, Series B Conversion Price, Series C Conversion Price, Series D Conversion Price or Series E Conversion Price, as applicable, to the extent in any way affected by or computed using such options, warrants, rights or securities or options, warrants or rights related to such securities, shall be recomputed to reflect the issuance of only the number of shares of Common Stock (and convertible or

exchangeable securities that remain in effect) actually issued upon the exercise of such options, warrants or rights, upon the conversion or exchange of such securities or upon the exercise of the options, warrants or rights related to such securities.

(E) The number of shares of Common Stock deemed issued and the consideration deemed paid therefor pursuant to subsections 3(d)(iii)(A) and (B) shall be appropriately adjusted to reflect any change, termination or expiration of the type described in either subsection 3(d)(iii)(C) and (D)).

(F) In case at any time any shares of Common Stock or Convertible Securities or any rights or options or warrants to purchase any such Common Stock, or Convertible Securities shall be issued or sold for cash, the consideration received therefor shall be deemed to be the amount received by the Company therefor. In case any shares of Common Stock or Convertible Securities or any rights or options or warrants to purchase any such Common Stock or Convertible Securities shall be issued or sold for a consideration other than cash, the amount of the consideration other than cash received by the Company shall be deemed to be the fair value of such consideration as determined by the Board of Directors, with the approval of at least 60% of the directors then serving on the Board of Directors. In case any shares of Common Stock or Convertible Securities or any rights or options or warrants to purchase any such Common Stock or Convertible Securities shall be issued in connection with any merger of another corporation into the Company, the amount of consideration therefor shall be deemed to be the fair value of the assets of such merged corporation as determined by the Board of Directors, with the approval of at least 60% of the directors then serving on the Board of Directors, after deducting therefrom all cash and other consideration (if any) paid by the Company in connection with such merger.

(h) No Impairment. The Company will not, through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action taken without the approval of the holders of 60% of the Preferred Stock (voting together as a single class and not as separate series, and on an as-if converted to Common Stock basis), avoid or seek to avoid the observance or performance of any of the terms to be observed or performed hereunder by the Company, but will at all times in good faith assist in carrying out of all the provision of this Section 3 and in the taking of all such action as may be necessary or appropriate in order to protect the conversion rights of the holders of the Preferred Stock against impairment.

(i) Certificate of Adjustments. Upon the occurrence of each adjustment of the Series A Conversion Price, Series B Conversion Price, Series C Conversion Price, Series D Conversion Price or Series E Conversion Price, as applicable, pursuant to this Section 3, the

Company at its expense shall promptly compute such adjustment and furnish to each holder of Preferred Stock a certificate setting forth such adjustment and showing in detail the facts upon which such adjustment is based. The Company shall, upon the written request at any time of any holder of Preferred Stock, furnish to such holder a like certificate setting forth (i) any and all adjustments made to the Preferred Stock since the date of the first issuance of Preferred Stock, (ii) the Series A Conversion Price, Series B Conversion Price, Series C Conversion Price, Series D Conversion Price or Series E Conversion Price, as applicable, at the time in effect, and (iii) the number of shares of Common Stock and the amount, if any, of other property which at the time would be received upon the conversion of Preferred Stock.

(j) Notices of Record Date. In the event that the Company shall propose at any time (i) to declare any dividend or other distribution or take a record of the holders of any class of securities for the purpose of determining the holders thereof who are entitled to receive any right to subscribe for, purchase or otherwise acquire any shares of stock of any class or any other securities or property or to receive any other right; (ii) to effect any reclassification or recapitalization; or (iii) to effect a Liquidation; then, in connection with each such event, the Company shall send to the holders of the Preferred Stock at least 20 days prior written notice of the date on which a record shall be taken for such dividend, distribution or subscription rights (and specifying the date on which the holders of stock shall be entitled thereto) or for determining rights to vote in respect of the matters referred to in clause (iii) above. The first of such notices with respect to the matters referred to in clause (iii) above shall describe the material terms and conditions of the impending transaction and the provisions of the Liquidation, and the Company shall thereafter give such holders prompt notice of any material changes. The Liquidation shall in no event take place sooner than 20 days after the Company has given the first notice provided for herein or sooner than 10 days after the Company has given notice of any material changes provided for herein; provided, however, that subject to compliance with the General Corporation Law

such periods may be shortened or waived upon the written consent of the holders of Preferred Stock that represent at least 60% of the voting power of all then outstanding shares of such Preferred Stock (voting together as a single class and not as separate series, and on an as-if converted to Common Stock basis).

(k) Reservation of Stock Issuable Upon Conversion. The Company shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock, solely for the purpose of effecting the conversion of the shares of the Preferred Stock, such number of its shares of Common Stock as shall from time to time be sufficient to effect the conversion of all then outstanding shares of the Preferred Stock; and if at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Preferred Stock, the Company will take such corporate action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purpose, including, without limitation, engaging in best efforts to obtain the requisite stockholder approval of any necessary amendment to this Sixth Restated Certificate of Incorporation.

4. Voting.

(a) General. Except as otherwise expressly provided herein or as required by law, the holders of Preferred Stock and the holders of Common Stock shall vote together and not as separate classes.

(b) Preferred Stock. Each holder of shares of Preferred Stock shall be entitled to the number of votes equal to the number of shares of Common Stock into which such shares of Preferred Stock held by such holder could then be converted. The holders of Preferred Stock shall be entitled to notice of any stockholders' meeting in accordance with the bylaws of the Company. Fractional votes shall not, however, be permitted and any fractional voting rights resulting from the above formula (after aggregating all shares of Common Stock into which shares of Preferred Stock held by each holder could be converted), shall be disregarded.

(c) Election of Directors. So long as not less than 5,000,000 shares of the Series A Preferred (as adjusted for stock splits, stock dividends, reverse stock splits, stock combinations, reorganizations and the like with respect to the Series A Preferred) remain outstanding, the holders of the Series A Preferred, voting separately as a single class and on an as-if converted to Common Stock basis, shall be entitled to elect two directors. So long as not less than 5,000,000 shares of the Series B Preferred (as adjusted for stock splits, stock dividends, reverse stock splits, stock combinations, reorganizations and the like with respect to the Series B Preferred) remain outstanding, the holders of the Series B Preferred, voting separately as a single class and on an as-if converted to Common Stock basis, shall be entitled to elect one director. So long as not less than 5,000,000 shares of the Series C Preferred (as adjusted for stock splits, stock dividends, reverse stock splits, stock combinations, reorganizations and the like with respect to the Series C Preferred) remain outstanding, the holders of the Series C Preferred, voting separately as a single class and on an as-if converted to Common Stock basis, shall be entitled to elect one director. The holders of Common Stock, voting separately as a single class, shall be entitled to elect one director. The holders of the Common Stock and the Preferred Stock, voting together as a single class and not as separate series, and on an as-if converted to Common Stock basis, shall be entitled to elect all other directors of the Company, if any.

Notwithstanding the provisions of Section 223(a)(1) and 223(a)(2) of the General Corporation Law, any vacancy, including newly created directorships resulting from any increase in the authorized number of directors or amendment of this Sixth Restated Certificate of Incorporation, and vacancies created by removal or resignation of a director, may be filled by a majority of the directors then in office, though less than a quorum, or by a sole remaining director, and the directors so chosen shall hold office until the next annual election and until their successors are duly elected and shall qualify, unless sooner displaced; provided, however, that where such vacancy occurs among the directors elected by the holders of a class or series of stock, the holders of shares of such class or series may override the Board' s action to fill such vacancy by (i) voting for their own designee to fill such vacancy at a meeting of the Company' s stockholders or (ii) written consent, if the consenting stockholders hold a sufficient number of shares to elect their designee at a meeting of the stockholders. Any director elected as provided in the immediately preceding sentence hereof may be removed during the aforesaid term of office, either with or without cause, by, and only by, the affirmative vote of the holders of the shares of the class or series of stock entitled to elect such director or directors, given either at a special meeting of such stockholders duly called for that purpose or pursuant to a written consent

of stockholders, and any vacancy thereby created may be filled by the holders of that class or series of stock represented at the meeting or pursuant to written consent.

5. Amendments and Changes.

(a) Approval by Preferred Stock. Notwithstanding Section 4 above, the Company shall not (by amendment, merger, consolidation or otherwise), without first obtaining the approval (by vote or written consent as provided by law) of more than 60% of the Preferred Stock then outstanding, voting together as a separate class and on an as-if converted to Common Stock basis:

(i) alter, change or amend the rights, privileges or preferences expressly afforded the Preferred Stock;

(ii) amend or waive (directly or indirectly, by merger or otherwise) this Sixth Restated Certificate of Incorporation or the bylaws of the Company in any way that materially and adversely affects the interests of the Preferred Stock;

(iii) increase or decrease the number of shares of Preferred Stock or of any series of Preferred Stock that the Company shall have the authority to issue;

(iv) authorize, create or issue (directly or indirectly, by merger or otherwise) any securities (including any other security convertible into or exercisable for any such securities) of the Company having rights, preferences or privileges which are senior to, or *pari passu* with, any of the rights of any of the Preferred Stock;

(v) reissue any shares of Preferred Stock acquired by the Company;

(vi) consummate any Liquidation;

(vii) change the authorized number of directors of the Company or the manner in which the directors of the Company are elected;

(viii) take any action that results in the issuance of any shares of the Company' s capital stock by a subsidiary of the Company to any third party;

(ix) redeem, purchase or otherwise acquire (or pay into or set aside for a sinking fund for such purpose) any share or shares of Preferred Stock or Common Stock; *provided*, *however*, that this restriction shall not apply to the repurchase of shares of Common Stock from employees, officers, directors, consultants or other persons performing services for the Company or any subsidiary pursuant to agreements under which the Company has the option to repurchase such shares upon the occurrence of certain events, such as the termination of employment or service, or pursuant to a right of first refusal or any redemption pursuant to Section 6 hereof;

(x) effect any reclassification or other change of any stock or any recapitalization of the Company;

(xi) pay any dividend or other distribution on any outstanding stock; or

(xii) amend any provision of this Section 5(a).

(b) Approval by Series A Preferred. Notwithstanding Section 4 or Section 5(a) above, the Company shall not (by amendment, merger, consolidation or otherwise), without first obtaining the approval (by vote or written consent as provided by law) of more than 60% of the Series A Preferred voting as a separate class:

(i) alter, change or amend the powers, preferences or special rights of the Series A Preferred so as to affect them adversely, which alteration, change or amendment does not so affect all Preferred Stock;

(ii) increase or decrease the number of shares of Series A Preferred;

(iii) change the authorized number of directors of the Company to be elected by the Series A Preferred voting as a separate class, or the manner in which those directors are elected; or

(iv) amend any provision of this Section 5(b).

(c) Approval by Series B Preferred. Notwithstanding Section 4 or Section 5(a) above, the Company shall not (by amendment, merger, consolidation or otherwise), without first obtaining the approval (by vote or written consent as provided by law) of more than 60% of the Series B Preferred then outstanding, voting as a separate class:

(i) alter, change or amend the powers, preferences or special rights of the Series B Preferred so as to affect them adversely, which alteration, change or amendment does not so affect all Preferred Stock;

(ii) increase or decrease the number of shares of Series B Preferred; or

(iii) change the authorized number of directors of the Company to be elected by the Series B Preferred voting as a separate class, or the manner in which those directors are elected; or

(iv) amend any provision of this Section 5(c).

(d) Approval by Series C Preferred. Notwithstanding Section 4 or Section 5(a) above, the Company shall not (by amendment, merger, consolidation or otherwise), without first obtaining the approval (by vote or written consent as provided by law) of more than 60% of the Series C Preferred voting as a separate class:

(i) alter, change or amend the powers, preferences or special rights of the Series C Preferred so as to affect them adversely, which alteration, change or amendment does not so affect all Preferred Stock;

(ii) increase or decrease the number of shares of Series C Preferred;

(iii) change the authorized number of directors of the Company to be elected by the Series C Preferred voting as a separate class, or the manner in which those directors are elected; or

(iv) amend any provision of this Section 5(d).

(e) Approval by Series D Preferred. Notwithstanding Section 4 or Section 5(a) above, the Company shall not (by amendment, merger, consolidation or otherwise), without first obtaining the approval (by vote or written consent as provided by law) of more than 60% of the Series D Preferred voting as a separate class:

(i) alter, change or amend the powers, preferences or special rights of the Series D Preferred so as to affect them adversely, which alteration, change or amendment does not so affect all Preferred Stock;

(ii) increase or decrease the number of shares of Series D Preferred; or

(iii) amend any provision of this Section 5(e).

(f) Approval by Series E Preferred. Notwithstanding Section 4 or Section 5(a) above, the Company shall not (by amendment, merger, consolidation or otherwise), without first obtaining the approval (by vote or written consent as provided by law) of more than 60% of the Series E Preferred voting as a separate class:

(i) alter, change or amend the powers, preferences or special rights of the Series E Preferred so as to affect them adversely, which alteration, change or amendment does not so affect all Preferred Stock;

(ii) increase or decrease the number of shares of Series E Preferred; or

(iii) amend any provision of this Section 5(f).

(g) Approval by Preferred Stock and Common Stock. The number of authorized shares of Common Stock may be increased or decreased (but not below the sum of the number of shares of Common Stock then outstanding and the number of shares of Common Stock to be reserved for issuance upon conversion of outstanding convertible securities or upon exercise of outstanding options) by the affirmative vote of the holders of a majority of the stock of the Company (voting together on an as-if-converted basis).

6. Redemption. The Preferred Stock shall be redeemable as follows:

(a) At any time after March 4, 2016, upon the affirmative vote or written consent of the holders of greater than 60% of the then-outstanding shares of Preferred Stock (the "**Redemption Request**"), the Company shall redeem for the Redemption Price (as defined below) as provided herein from any source of funds legally available therefor on each of the respective Redemption Dates (as defined below), the Preferred Stock in three equal annual installments of one-third of the outstanding shares of Preferred Stock to be redeemed. The redemption date for each annual redemption of shares pursuant to this subsection (the "**Redemption Date**") shall be (i) for the first such installment, a date determined by the Company falling not later than 60 days after the date the Company has received a Redemption Request and (ii) for the second and third installments, on the first and second anniversary, respectively, of the first Redemption Date (or if such date falls on a weekend or bank holiday, the next business day). The shares of Preferred Stock not redeemed pursuant to this Section 6(a) as of a certain Redemption Date shall remain outstanding and shall be entitled to all the rights and preferences provided herein.

(b) The "**Redemption Price**" shall mean the greater of (i)(A) in the case of the Series A Preferred, $0.09524 per share (as adjusted for any stock splits, stock dividends or distributions, reverse stock splits, stock combinations, recapitalizations, and similar events), plus any declared but unpaid dividends payable on each such share to be redeemed, (B) in the case of the Series B Preferred, $0.44445 per share (as adjusted for any stock splits, stock dividends or distributions, reverse stock splits, stock combinations, recapitalizations, and similar events), plus any declared but unpaid dividends payable on each such share to be redeemed, (C) in the case of the Series C Preferred, $1.87585 per share (as adjusted for any stock splits, stock dividends or distributions, reverse stock splits, stock combinations, recapitalizations, and similar events), (D) in the case of the Series D Preferred, $3.04144 per share (as adjusted for any stock splits, stock dividends or distributions, reverse stock splits, stock combinations, recapitalizations, and similar events), plus any declared but unpaid dividends payable on each such share to be redeemed and (E) in the case of the Series E Preferred, $4.15412 per share (as adjusted for any stock splits, stock dividends or distributions, reverse stock splits, stock combinations, recapitalizations, and similar events), plus any declared but unpaid dividends payable on each such share to be redeemed; and (ii) the fair market value of each respective series of the Preferred Stock, as determined by the Board of Directors, with the approval of at least 60% of the directors then serving on the Board of Directors, on the date of the Redemption Request.

(c) Within 15 days of the Company' s receipt of a Redemption Request, the Company will mail written notice, first class postage prepaid, to each holder of record (at the close of business on the business day preceding the day on which notice is given) of Preferred Stock to be redeemed, at the address for such holder as it appears on the stock transfer books of the Company, notifying such holder of the redemption, specifying the Redemption Dates upon which the Company shall satisfy the Redemption Request, the applicable Redemption Price, the place at which payment may be obtained and the date on which such holder' s conversion rights as to such shares terminate with respect to shares to be redeemed, asking such holder to indicate the number of shares he, she or it desires to have redeemed and calling upon such holder to surrender to the Company, in the manner and at the place designated, its certificate or certificates representing the shares to be redeemed (the "**Redemption Notice**"). On or after each

Redemption Date, each holder of shares to be redeemed shall surrender to the Company the certificate or certificates representing such shares to be redeemed, in the manner and at the place designated in the Redemption Notice, and thereupon the applicable Redemption Price of such shares shall be payable to the order of the person whose name appears on such certificate or certificates as the owner thereof. In the event that less than all the shares represented by any such certificate are redeemed, a new certificate shall be issued representing the unredeemed shares.

(d) From and after each Redemption Date, all rights of the holders of the shares theretofore redeemed (except the right to receive the Redemption Price upon surrender of their certificate or certificates) shall cease with respect to such shares, and such shares shall not thereafter be transferred on the books of the Company or be deemed to be outstanding for any purpose whatsoever. In the event that shares of Preferred Stock are not redeemed due to a default in payment by the Company, or the Company is unable to pay the Redemption Price due to not having sufficient legally available funds, the shares not redeemed shall remain outstanding and entitled to all the rights and preferences provided herein, and a new certificate shall be issued representing the unredeemed shares.

(e) If the funds of the Company legally available for redemption of the Preferred Stock on any Redemption Date are insufficient to redeem the total number of shares requested to be redeemed pursuant to this Section 6 on such Redemption Date, those funds which are legally available will be used to redeem the maximum number of shares of Preferred Stock that may be redeemed, such redemption to be effected ratably among the holders of such Preferred Stock in proportion to the number of shares of Preferred Stock then held. The shares of Preferred Stock not redeemed pursuant to this Section 6(e) shall remain outstanding and shall be entitled to all the rights and preferences provided herein. At any time thereafter, when additional funds of the Company are legally available for the redemption of the Preferred Stock specified for redemption pursuant to this Section 6, such funds will be used reasonably promptly to redeem the balance of such shares which the Company has become obligated to redeem pursuant to this Section 6, on the same terms and conditions as are set forth above.

7. Notices. Any notice required by the provisions of this Article FOURTH to be given to the holders of Preferred Stock shall be deemed given if deposited in the United States mail, postage prepaid, if deposited with a nationally recognized overnight courier, or if personally delivered, and addressed to each holder of record at such holder' s address appearing on the books of the Company.

8. Status of Converted Stock. In the event any shares of Preferred Stock shall be converted pursuant to Section 3 hereof, the shares so converted shall be cancelled and shall not be issuable by the Company. The Sixth Restated Certificate of Incorporation of this corporation shall be appropriately amended to effect the corresponding reduction in the Company' s authorized capital stock.

C. Common Stock. The rights, preferences, privileges and restrictions granted to and imposed on the Common Stock are as set forth below in this Article FOURTH (C).

1. Dividend Rights. Subject to the prior rights of holders of all classes of stock at the time outstanding having prior rights as to dividends, the holders of the Common Stock shall be entitled to receive, when, as and if declared by the Board of Directors, out of any assets of this corporation legally available therefor, any dividends as may be declared from time to time by the Board of Directors.

2. Liquidation Rights. Upon the liquidation, dissolution or winding up of this corporation, the assets of this corporation shall be distributed as provided in Section 2 of Article FOURTH (B) hereof.

3. Redemption. The Common Stock is not redeemable.

4. Voting Rights. The holder of each share of Common Stock shall have the right to one vote for each such share, and shall be entitled to notice of any stockholders' meeting in accordance with the Bylaws of the Company, and shall be entitled to vote upon such matters and in such manner as may be provided by law. The number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority of the stock of this corporation entitled to vote, irrespective of the provisions of Section 242(b)(2) of the General Corporation Law.

FIFTH

The Board of Directors shall have the power, subject to the provisions of Section 5 of Article FOURTH(B) hereof, to adopt, amend and repeal the bylaws of the Company (except insofar as the bylaws of the Company as adopted by action of the stockholders of the Company shall otherwise provide and except as otherwise provided in this Sixth Restated Certificate of Incorporation). Any bylaws made by the directors under the powers conferred hereby may be amended or repealed by the directors or by the stockholders, and the powers conferred in this Article FIFTH shall not abrogate the right of the stockholders to adopt, amend and repeal bylaws.

SIXTH

Election of directors need not be by written ballot unless the bylaws of the Company shall so provide.

SEVENTH

Except as otherwise set forth herein, the Company reserves the right to amend the provisions in this Sixth Restated Certificate of Incorporation and in any certificate amendatory hereof in the manner now or hereafter prescribed by law, and all rights conferred on stockholders or others hereunder or thereunder are granted subject to such reservation.

EIGHTH

A. To the fullest extent permitted by the Delaware General Corporation Law as the same exists or as may hereafter be amended, no director of the Company shall be personally liable to the Company or its stockholders for monetary damages for breach of fiduciary duty as a director. If the Delaware General Corporation Law is amended after the Filing Date to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Company shall be eliminated or limited to the fullest extent permitted by the Delaware General Corporation Law as so amended.

B. The Company may indemnify to the fullest extent permitted by law any person made or threatened to be made a party to an action or proceeding whether criminal, civil, administrative or investigative, by reason of the fact that he/she, his/her testator or intestate is or was a director, officer or employee of the Company or any predecessor of the Company or serves or served at any other enterprise as a director, officer or employee at the request of the Company or any predecessor to the Company to the same extent as permitted by law.

C. Neither any amendment nor repeal of this Article EIGHTH, nor the adoption of any provision of the Company' s Certificate of Incorporation inconsistent with this Article EIGHTH, shall eliminate or reduce the effect of this Article EIGHTH in respect of any matter occurring or any action or proceeding accruing or arising or that, but for this Article EIGHTH, would accrue or arise, prior to such amendment, repeal or adoption of an inconsistent provision.

D. The Company may maintain insurance, at its expense, to protect itself and any director, officer, employee or agent of the Company or another corporation, partnership, joint venture, trust or other enterprise against any such expense, liability or loss, whether or not the Company would have the power to indemnify such person against such expense, liability or loss under the Delaware General Corporation Law.

NINTH

In the event that a director of the Company who is also a partner, member or employee of a holder of Preferred Stock (or of the general partner or management company of such holder) acquires knowledge of a potential transaction or matter which may be a corporate opportunity for both the Company and such holder of Preferred Stock, such director shall to the fullest extent permitted by law have fully satisfied and fulfilled his fiduciary duty with respect to such corporate opportunity, and the Company to the fullest extent permitted by law shall waive any claim that such business opportunity constituted a corporate opportunity that should have been presented to the Company or any of its affiliates, if such director acts in a manner consistent with the following policy: A corporate opportunity offered to any person who is a director of the Company and who is also a partner, member or employee of a holder of Preferred Stock (or of the general partner or management company of such holder) shall belong to such holder of Preferred Stock, unless such opportunity was expressly offered to such person solely in his or her capacity as a director of the Company.

Exhibit 3.4

AMENDED AND RESTATED BYLAWS OF

INTERMOLECULAR, INC.

(a Delaware corporation)

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AMENDED AND RESTATED
BYLAWS OF
INTERMOLECULAR, INC.

ARTICLE I - CORPORATE OFFICES

1.1 REGISTERED OFFICE.

The registered office of Intermolecular, Inc. (the "Corporation") shall be fixed in the Corporation' s certificate of incorporation, as the same may be amended from time to time (the "certificate of incorporation").

1.2 OTHER OFFICES.

The Corporation' s board of directors (the "Board") may at any time establish other offices at any place or places where the Corporation is qualified to do business.

ARTICLE II - MEETINGS OF STOCKHOLDERS

2.1 PLACE OF MEETINGS.

Meetings of stockholders shall be held at any place, within or outside the State of Delaware, designated by the Board. The Board may, in its sole discretion, determine that a meeting of stockholders shall not be held at any place, but may instead be held solely by means of remote communication as authorized by Section 211(a)(2) of the Delaware General Corporation Law (the "DGCL"). In the absence of any such designation or determination, stockholders' meetings shall be held at the Corporation' s principal executive office.

2.2 ANNUAL MEETING.

The Board shall designate the date and time of the annual meeting. At the annual meeting, directors shall be elected and other proper business properly brought before the meeting in accordance with Section 2.4 of this Article II may be transacted.

2.3 SPECIAL MEETING.

A special meeting of the stockholders may be called at any time by the Board, chairperson of the Board, chief executive officer or president (in the absence of a chief executive officer), but such special meetings may not be called by any other person or persons.

No business may be transacted at such special meeting other than the business specified in such notice to stockholders. Nothing contained in this paragraph of this Section 2.3 shall be construed as limiting, fixing, or affecting the time when a meeting of stockholders called by action of the Board may be held.

2.4 ADVANCE NOTICE PROCEDURES FOR BUSINESS BROUGHT BEFORE A MEETING.

(i) At an annual meeting of the stockholders, only such business shall be conducted as shall have been properly brought before the meeting. To be properly brought before an annual meeting, business must be (a) brought before the meeting by the Corporation and specified in the notice of meeting given by or at the direction of the Board, (b) brought before the meeting by or at the direction of the Board or (c) otherwise properly brought before the meeting by a stockholder who (A) was a stockholder of record of the Corporation (and, with respect to any beneficial owner, if different, on whose behalf such business is proposed, only if such beneficial owner was the beneficial owner of shares of the Corporation) both at the time of giving the notice provided for in this Section 2.4 and at the time of the meeting, (B) is entitled to vote at the meeting and (C) has complied with this Section 2.4 as to such business. Except for proposals properly made in accordance with Rule 14a-8 under the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder (as so amended and inclusive of such rules and regulations, the "Exchange Act"), and included in the notice of meeting given by or at the direction of the Board, the foregoing clause (c) shall be the exclusive means for a stockholder to propose business to be brought before an annual meeting of the stockholders. Stockholders shall not be permitted to propose business to be brought before a special meeting of the stockholders, and the only matters that may be brought before a special meeting are the matters specified in the notice of meeting given by or at the direction of the person calling the meeting pursuant to Article II, Section 2.3 of these bylaws. Stockholders seeking to nominate persons for election to the Board must comply with Section 2.5 of these bylaws, and this Section 2.4 shall not be applicable to nominations except as expressly provided in Section 2.5 of these bylaws.

(ii) Without qualification, for business to be properly brought before an annual meeting by a stockholder, the stockholder must (a) provide Timely Notice (as defined below) thereof in writing and in proper form to the Secretary of the Corporation and (b) provide any updates or supplements to such notice at the times and in the forms required by this Section 2.4. To be timely, a stockholder' s notice must be delivered to, or mailed and received at, the principal executive offices of the Corporation not less than ninety (90) days nor more than one hundred twenty (120) days prior to the one-year anniversary of the preceding year' s annual meeting; *provided, however*, that if the date of the annual meeting is more than thirty (30) days before or more than sixty (60) days after such anniversary date, notice by the stockholder to be timely must be so delivered, or mailed and received, not earlier than the one hundred twentieth (120th) day prior to such annual meeting and not later than the ninetieth (90th) day prior to such annual meeting or, if later, the tenth (10th) day following the day on which public disclosure of the date of such annual meeting was first made (such notice within such time periods, "Timely Notice"). In no event shall any adjournment or postponement of an annual meeting or the announcement thereof commence a new time period for the giving of Timely Notice as described above.

(iii) To be in proper form for purposes of this Section 2.4, a stockholder' s notice to the Secretary shall set forth:

(a) As to each Proposing Person (as defined below), (A) the name and address of such Proposing Person (including, if applicable, the name and address that appear on the Corporation' s books and records) and (B) the class or series and number of shares of the Corporation that are, directly or indirectly, owned of record or beneficially owned (within the meaning of Rule 13d-3 under the Exchange Act) by such Proposing Person, except that such Proposing Person shall in all events be deemed to beneficially own any shares of any class or series of the Corporation as to which such Proposing Person has a right to acquire beneficial

ownership at any time in the future (the disclosures to be made pursuant to the foregoing clauses (A) and (B) are referred to as "Stockholder Information");

(b) As to each Proposing Person, (A) any derivative, swap or other transaction or series of transactions engaged in, directly or indirectly, by such Proposing Person, the purpose or effect of which is to give such Proposing Person economic risk similar to ownership of shares of any class or series of the Corporation, including due to the fact that the value of such derivative, swap or other transactions are determined by reference to the price, value or volatility of any shares of any class or series of the Corporation, or which derivative, swap or other transactions provide, directly or indirectly, the opportunity to profit from any increase in the price or value of shares of any class or series of the Corporation ("Synthetic Equity Interests"), which Synthetic Equity Interests shall be disclosed without regard to whether (x) the derivative, swap or other transactions convey any voting rights in such shares to such Proposing Person, (y) the derivative, swap or other transactions are required to be, or are capable of being, settled through delivery of such shares or (z) such Proposing Person may have entered into other transactions that hedge or mitigate the economic effect of such derivative, swap or other transactions, (B) any proxy (other than a revocable proxy or consent given in response to a solicitation made pursuant to, and in accordance with, Section 14(a) of the Exchange Act by way of a solicitation statement filed on Schedule 14A), agreement, arrangement, understanding or relationship pursuant to which such Proposing Person has or shares a right to vote any shares of any class or series of the Corporation, (C) any agreement, arrangement, understanding or relationship, including any repurchase or similar so-called "stock borrowing" agreement or arrangement, engaged in, directly or indirectly, by such Proposing Person, the purpose or effect of which is to mitigate loss to, reduce the economic risk (of ownership or otherwise) of shares of any class or series of the Corporation by, manage the risk of share price changes for, or increase or decrease the voting power of, such Proposing Person with respect to the shares of any class or series of the Corporation, or which provides, directly or indirectly, the opportunity to profit from any decrease in the price or value of the shares of any class or series of the Corporation ("Short Interests"), (D) any rights to dividends on the shares of any class or series of the Corporation owned beneficially by such Proposing Person that are separated or separable from the underlying shares of the Corporation, (E) any performance related fees (other than an asset based fee) that such Proposing Person is entitled to based on any increase or decrease in the price or value of shares of any class or series of the Corporation, or any Synthetic Equity Interests or Short Interests, if any, (F)(x) if such Proposing Person is not a natural person, the identity of the natural person or persons associated with such Proposing Person responsible for the formulation of and decision to propose the business to be brought before the meeting (such person or persons, the "Responsible Person"), the manner in which such Responsible Person was selected, any fiduciary duties owed by such Responsible Person to the equity holders or other beneficiaries of such Proposing Person, the qualifications and background of such Responsible Person and any material interests or relationships of such Responsible Person that are not shared generally by any other record or beneficial holder of the shares of any class or series of the Corporation and that reasonably could have influenced the decision of such Proposing Person to propose such business to be brought before the meeting, and (y) if such Proposing Person is a natural person, the qualifications and background of such natural person and any material interests or relationships of such natural person that are not shared generally by any other record or beneficial holder of the shares of any class or series of the Corporation and that reasonably could have influenced the decision of such Proposing

Person to propose such business to be brought before the meeting, (G) any significant equity interests or any Synthetic Equity Interests or Short Interests in any principal competitor of the Corporation held by such Proposing Persons, (H) any direct or indirect interest of such Proposing Person in any contract with the Corporation, any affiliate of the Corporation or any principal competitor of the Corporation (including, in any such case, any employment agreement, collective bargaining agreement or consulting agreement), (I) any pending or threatened litigation in which such Proposing Person is a party or material participant involving the Corporation or any of its officers or directors, or any affiliate of the Corporation, (J) any material transaction occurring during the prior twelve months between such Proposing Person, on the one hand, and the Corporation, any affiliate of the Corporation or any principal competitor of the Corporation, on the other hand, (K) a summary of any material discussions regarding the business proposed to be

brought before the meeting (x) between or among any of the Proposing Persons or (y) between or among any Proposing Person and any other record or beneficial holder of the shares of any class or series of the Corporation (including their names) and (L) any other information relating to such Proposing Person that would be required to be disclosed in a proxy statement or other filing required to be made in connection with solicitations of proxies or consents by such Proposing Person in support of the business proposed to be brought before the meeting pursuant to Section 14(a) of the Exchange Act (the disclosures to be made pursuant to the foregoing clauses (A) through (L) are referred to as "Disclosable Interests"); provided, however, that Disclosable Interests shall not include any such disclosures with respect to the ordinary course business activities of any broker, dealer, commercial bank, trust company or other nominee who is a Proposing Person solely as a result of being the stockholder directed to prepare and submit the notice required by these bylaws on behalf of a beneficial owner; and

(c) As to each item of business that the stockholder proposes to bring before the annual meeting, (A) a reasonably brief description of the business desired to be brought before the annual meeting, the reasons for conducting such business at the annual meeting and any material interest in such business of each Proposing Person, (B) the text of the proposal or business (including the text of any resolutions proposed for consideration and in the event that such business includes a proposal to amend the bylaws of the Corporation, the language of the proposed amendment), (C) a reasonably detailed description of all agreements, arrangements and understandings between or among any of the Proposing Persons or between or among any Proposing Person and any other person or entity (including their names) in connection with the proposal of such business by such stockholder and (D) any other information relating to such item of business that would be required to be disclosed in a proxy statement or other filing required to be made in connection with solicitations of proxies in support of the business proposed to be brought before the meeting pursuant to Section 14(a) of the Exchange Act; provided, however, that the disclosures required by this paragraph (iii) shall not include any disclosures with respect to any broker, dealer, commercial bank, trust company or other nominee who is a Proposing Person solely as a result of being the stockholder directed to prepare and submit the notice required by these Bylaws on behalf of a beneficial owner.

(iv) For purposes of this Section 2.4, the term "Proposing Person" shall mean (i) the stockholder providing the notice of business proposed to be brought before an annual meeting, (ii) the beneficial owner or beneficial owners, if different, on whose behalf the notice of the business proposed to be brought before the annual meeting is made, (iii) any affiliate or associate (each within the meaning of Rule

12b-2 under the Exchange Act for the purposes of these bylaws) of such stockholder or beneficial owner and (iv) any other person with whom such stockholder or beneficial owner (or any of their respective affiliates or associates) is Acting in Concert (as defined below).

(v) A person shall be deemed to be "Acting in Concert" with another person for purposes of these bylaws if such person knowingly acts (whether or not pursuant to an express agreement, arrangement or understanding) in concert with, or towards a common goal relating to the management, governance or control of the Corporation in parallel with, such other person where (A) each person is conscious of the other person' s conduct or intent and this awareness is an element in their decision-making processes and (B) at least one additional factor suggests that such persons intend to act in concert or in parallel, which such additional factors may include, without limitation, exchanging information (whether publicly or privately), attending meetings, conducting discussions, or making or soliciting invitations to act in concert or in parallel; *provided*, that a person shall not be deemed to be Acting in Concert with any other person solely as a result of the solicitation or receipt of revocable proxies or consents from such other person in response to a solicitation made pursuant to, and in accordance with, the Section 14(a) of the Exchange Act by way of a proxy or consent solicitation statement filed on Schedule 14A. A person Acting in Concert with another person shall be deemed to be Acting in Concert with any third party who is also Acting in Concert with such other person.

(vi) A stockholder providing notice of business proposed to be brought before an annual meeting shall further update and supplement such notice, if necessary, so that the information provided or required to be provided in such notice pursuant to this Section 2.4 shall be true and correct as of the record date for the meeting and as of the date that is ten (10) business days prior to the meeting

or any adjournment or postponement thereof, and such update and supplement shall be delivered to, or mailed and received by, the Secretary at the principal executive offices of the Corporation not later than five (5) business days after the record date for the meeting (in the case of the update and supplement required to be made as of the record date), and not later than eight (8) business days prior to the date for the meeting or, if practicable, any adjournment or postponement thereof (and, if not practicable, on the first practicable date prior to the date to which the meeting has been adjourned or postponed) (in the case of the update and supplement required to be made as of ten (10) business days prior to the meeting or any adjournment or postponement thereof).

(vii) Notwithstanding anything in these bylaws to the contrary, no business shall be conducted at an annual meeting except in accordance with this Section 2.4. The presiding officer of the meeting shall, if the facts warrant, determine that the business was not properly brought before the meeting in accordance with this Section 2.4, and if he or she should so determine, he or she shall so declare to the meeting and any such business not properly brought before the meeting shall not be transacted.

(viii) This Section 2.4 is expressly intended to apply to any business proposed to be brought before an annual meeting of stockholders, regardless of whether or not such proposal made pursuant to Rule 14a-8 under the Exchange Act. In addition to the requirements of this Section 2.4 with respect to any business proposed to be brought before an annual meeting, each Proposing Person shall comply with all applicable requirements of the Exchange Act with respect to any such business. Nothing in this Section 2.4 shall be deemed to affect the rights of stockholders to request inclusion of proposals in the Corporation' s proxy statement pursuant to Rule 14a-8 under the Exchange Act.

(ix) For purposes of these bylaws, "public disclosure" shall mean disclosure in a press release reported by a national news service or in a document publicly filed by the Corporation with the Securities and Exchange Commission pursuant to Sections 13, 14 or 15(d) of the Exchange Act.

2.5 ADVANCE NOTICE PROCEDURES FOR NOMINATIONS OF DIRECTORS.

(i) Nominations of any person for election to the Board at an annual meeting or at a special meeting (but only if the election of directors is a matter specified in the notice of meeting given by or at the direction of the person calling such special meeting) may be made at such meeting only (a) by or at the direction of the Board, including by any committee or persons appointed by the Board, or (b) by a stockholder who (A) was a stockholder of record of the Corporation (and, with respect to any beneficial owner, if different, on whose behalf such nomination is proposed to be made, only if such beneficial owner was the beneficial owner of shares of the Corporation) both at the time of giving the notice provided for in this Section 2.5 and at the time of the meeting, (B) is entitled to vote at the meeting and (C) has complied with this Section 2.5 as to such nomination. The foregoing clause (b) shall be the exclusive means for a stockholder to make any nomination of a person or persons for election to the Board to be considered by the stockholders at an annual meeting or special meeting.

(ii) Without qualification, for a stockholder to make any nomination of a person or persons for election to the Board at an annual meeting, the stockholder must (a) provide Timely Notice (as defined in Section 2.4(ii) of these bylaws) thereof in writing and in proper form to the Secretary of the Corporation and (b) provide any updates or supplements to such notice at the times and in the forms required by this Section 2.5. Without qualification, if the election of directors is a matter specified in the notice of meeting given by or at the direction of the person calling such special meeting, then for a stockholder to make any nomination of a person or persons for election to the Board at a special meeting, the stockholder must (a) provide timely notice thereof in writing and in proper form to the Secretary of the Corporation at the principal executive offices of the Corporation and (b) provide any updates or supplements to such notice at the times and in the forms required by this Section 2.5. To be timely, a stockholder' s notice for nominations to be made at a special meeting must be delivered to, or mailed and received at, the principal executive offices of the Corporation not earlier than the one hundred twentieth (120^{th}) day prior to such special meeting and not later than the ninetieth (90^{th}) day prior to such special meeting or, if later, the tenth (10^{th}) day following the day on which public disclosure (as defined in Section 2.4(ix) of these bylaws) of the date of such special meeting was first made. In no event shall any adjournment or postponement of an annual meeting or special meeting or the announcement thereof commence a new time period for the giving of a stockholder' s notice as described above.

(iii) To be in proper form for purposes of this Section 2.5, a stockholder' s notice to the Secretary shall set forth:

(a) As to each Nominating Person (as defined below), the Stockholder Information (as defined in Section 2.4(iii)(a) of these bylaws) except that for purposes of this Section 2.5, the term "Nominating Person" shall be substituted for the term "Proposing Person" in all places it appears in Section 2.4(iii)(a);

(b) As to each Nominating Person, any Disclosable Interests (as defined in Section 2.4(iii)(b), except that for purposes of this Section 2.5 the term "Nominating Person" shall be substituted for the term "Proposing Person" in all places it appears in Section 2.4(iii)(b) and the disclosure in clause (L) of Section 2.4(iii)(b) shall be made with respect to the election of directors at the meeting);

(c) As to each person whom a Nominating Person proposes to nominate for election as a director, (A) all information with respect to such proposed nominee that would be

required to be set forth in a stockholder' s notice pursuant to this Section 2.5 if such proposed nominee were a Nominating Person, (B) all information relating to such proposed nominee that is required to be disclosed in a proxy statement or other filings required to be made in connection with solicitations of proxies for election of directors in a contested election pursuant to Section 14(a) under the Exchange Act (including such proposed nominee' s written consent to being named in the proxy statement as a nominee and to serving as a director if elected), (C) a description of all direct and indirect compensation and other material monetary agreements, arrangements and understandings during the past three (3) years, and any other material relationships, between or among any Nominating Person, on the one hand, and each proposed nominee, his or her respective affiliates and associates and any other persons with whom such proposed nominee (or any of his or her respective affiliates and associates) is Acting in Concert (as defined in Section 2.4(v) of these bylaws), on the other hand, including, without limitation, all information that would be required to be disclosed pursuant to Item 404 under Regulation S-K if such Nominating Person were the "registrant" for purposes of such rule and the proposed nominee were a director or executive officer of such registrant (the disclosures to be made pursuant to the foregoing clauses (A) through (C) are referred to as "Nominee Information"), and (D) a completed and signed questionnaire, representation and agreement as provided in Section 2.5(vii); and

(d) The Corporation may require any proposed nominee to furnish such other information (A) as may reasonably be required by the Corporation to determine the eligibility of such proposed nominee to serve as an independent director of the Corporation in accordance with the Corporation' s Corporate Governance Guidelines or (B) that could be material to a reasonable stockholder' s understanding of the independence or lack of independence of such proposed nominee.

(iv) For purposes of this Section 2.5, the term "Nominating Person" shall mean (i) the stockholder providing the notice of the nomination proposed to be made at the meeting, (ii) the beneficial owner or beneficial owners, if different, on whose behalf the notice of the nomination proposed to be made at the meeting is made, (iii) any affiliate or associate of such stockholder or beneficial owner and (iv) any other person with whom such stockholder or such beneficial owner (or any of their respective affiliates or associates) is Acting in Concert.

(v) A stockholder providing notice of any nomination proposed to be made at a meeting shall further update and supplement such notice, if necessary, so that the information provided or required to be provided in such notice pursuant to this Section 2.5 shall be true and correct as of the record date for the meeting and as of the date that is ten (10) business days prior to the meeting or any adjournment or postponement thereof, and such update and supplement shall be delivered to, or mailed and received by, the Secretary at the principal executive offices of the Corporation not later than five (5) business days after the record date for the meeting (in the case of the update and supplement required to be made as of the record date), and not later than eight (8) business days prior to the date for the meeting or, if practicable, any adjournment or postponement thereof (and, if not practicable, on the first practicable date prior to the date to which the meeting has been adjourned or postponed) (in the case of the update and supplement required to be made as of ten (10) business days prior to the meeting or any adjournment or postponement thereof).

(vi) Notwithstanding anything in these bylaws to the contrary, no person shall be eligible for election as a director of the Corporation unless nominated in accordance with this Section 2.5. The presiding officer at the meeting shall, if the facts warrant, determine that a nomination was not properly made

in accordance with this Section 2.5, and if he or she should so determine, he or she shall so declare such determination to the meeting and the defective nomination shall be disregarded.

(vii) To be eligible to be a nominee for election as a director of the Corporation, the proposed nominee must deliver (in accordance with the time periods prescribed for delivery of notice under this Section 2.5) to the Secretary at the principal executive offices of the Corporation a written questionnaire with respect to the background and qualification of such proposed nominee (which questionnaire shall be provided by the Secretary upon written request) and a written representation and agreement (in form provided by the Secretary upon written request) that such proposed nominee (A) is not and will not become a party to (x) any agreement, arrangement or understanding with, and has not given any commitment or assurance to, any person or entity as to how such proposed nominee, if elected as a director of the Corporation, will act or vote on any issue or question (a "Voting Commitment") that has not been disclosed to the Corporation or (y) any Voting Commitment that could limit or interfere with such proposed nominee' s ability to comply, if elected as a director of the Corporation, with such proposed nominee' s fiduciary duties under applicable law, (B) is not, and will not become a party to, any agreement, arrangement or understanding with any person or entity other than the Corporation with respect to any direct or indirect compensation, reimbursement or indemnification in connection with service or action as a director that has not been disclosed to the Corporation and (C) in such proposed nominee' s individual capacity and on behalf of the stockholder (or the beneficial owner, if different) on whose behalf the nomination is made, would be in compliance, if elected as a director of the Corporation, and will comply with applicable publicly disclosed corporate governance, conflict of interest, confidentiality and stock ownership and trading policies and guidelines of the Corporation.

(viii) In addition to the requirements of this Section 2.5 with respect to any nomination proposed to be made at a meeting, each Proposing Person shall comply with all applicable requirements of the Exchange Act with respect to any such nominations.

2.6 NOTICE OF STOCKHOLDERS' MEETINGS.

Unless otherwise provided by law, the certificate of incorporation or these bylaws, the notice of any meeting of stockholders shall be sent or otherwise given in accordance with either Section 2.7 or Section 8.1 of these bylaws not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder entitled to vote at such meeting. The notice shall specify the place, if any, date and hour of the meeting, the means of remote communication, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such meeting, and, in the case of a special meeting, the purpose or purposes for which the meeting is called.

2.7 MANNER OF GIVING NOTICE; AFFIDAVIT OF NOTICE.

Notice of any meeting of stockholders shall be deemed given:

(i) if mailed, when deposited in the United States mail, postage prepaid, directed to the stockholder at his or her address as it appears on the Corporation' s records; or

(ii) if electronically transmitted as provided in Section 8.1 of these bylaws.

An affidavit of the secretary or an assistant secretary of the Corporation or of the transfer agent or any other agent of the Corporation that the notice has been given by mail or by a form of electronic transmission, as applicable, shall, in the absence of fraud, be prima facie evidence of the facts stated therein.

2.8 QUORUM.

Unless otherwise provided by law, the certificate of incorporation or these bylaws, the holders of a majority in voting power of the stock issued and outstanding and entitled to vote, present in person, or by remote communication, if applicable, or represented by proxy, shall constitute a quorum for the transaction of business at all meetings of the stockholders. If, however, a quorum is not present or represented at any meeting of the stockholders, then either (i) the chairperson of the meeting or (ii) a majority in voting power of the stockholders entitled to vote at the meeting, present in person, or by remote communication, if applicable, or represented by proxy, shall have power to adjourn the meeting from time to time in the manner provided in Section 2.9 of these bylaws until a quorum is present or represented. At such adjourned meeting at which a quorum is present or represented, any business may be transacted that might have been transacted at the meeting as originally noticed.

2.9 ADJOURNED MEETING; NOTICE.

When a meeting is adjourned to another time or place, unless these bylaws otherwise require, notice need not be given of the adjourned meeting if the time, place, if any, thereof, and the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such adjourned meeting are announced at the meeting at which the adjournment is taken. At the adjourned meeting, the Corporation may transact any business which might have been transacted at the original meeting. If the adjournment is for more than thirty (30) days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

2.10 CONDUCT OF BUSINESS.

The chairperson of any meeting of stockholders shall determine the order of business and the procedure at the meeting, including such regulation of the manner of voting and the conduct of business.

2.11 VOTING.

The stockholders entitled to vote at any meeting of stockholders shall be determined in accordance with the provisions of Section 2.13 of these bylaws, subject to Section 217 (relating to voting rights of fiduciaries, pledgors and joint owners of stock) and Section 218 (relating to voting trusts and other voting agreements) of the DGCL.

Except as may be otherwise provided in the certificate of incorporation or these bylaws, each stockholder shall be entitled to one (1) vote for each share of capital stock held by such stockholder.

At all duly called or convened meetings of stockholders, at which a quorum is present, for the election of directors, a plurality of the votes cast shall be sufficient to elect a director. Except as otherwise provided by the certificate of incorporation, these bylaws, the rules or regulations of any stock exchange applicable to the Corporation, or applicable law or pursuant to any regulation applicable to the Corporation or its securities, all other elections and questions presented to the stockholders at a duly called or convened meeting, at which

a quorum is present, shall be decided by the majority of the votes cast affirmatively or negatively (excluding abstentions) and shall be valid and binding upon the Corporation.

2.12 STOCKHOLDER ACTION BY WRITTEN CONSENT WITHOUT A MEETING.

Subject to the rights of the holders of the shares of any series of Preferred Stock or any other class of stock or series thereof having a preference over the Common Stock as to dividends or upon liquidation, any action required or permitted to be taken by the stockholders of the Corporation must be effected at a duly called annual or special meeting of stockholders of the Corporation and may not be effected by any consent in writing by such stockholders.

2.13 RECORD DATE FOR STOCKHOLDER NOTICE; VOTING; GIVING CONSENTS.

In order that the Corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board may fix, in advance, a record date, which record date shall not precede the date on which the resolution fixing the record date is adopted and which shall not be more than sixty (60) nor less than ten (10) days before the date of such meeting, nor more than sixty (60) days prior to any other such action.

If the Board does not so fix a record date:

(i) The record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held.

(ii) The record date for determining stockholders for any other purpose shall be at the close of business on the day on which the Board adopts the resolution relating thereto.

A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; *provided, however*, that the Board may fix a new record date for the adjourned meeting.

2.14 PROXIES.

Each stockholder entitled to vote at a meeting of stockholders may authorize another person or persons to act for such stockholder by proxy authorized by an instrument in writing or by a transmission permitted by law filed in accordance with the procedure established for the meeting, but no such proxy shall be voted or acted upon after three (3) years from its date, unless the proxy provides for a longer period. The revocability of a proxy that states on its face that it is irrevocable shall be governed by the provisions of Section 212 of the DGCL. A proxy may be in the form of a telegram, cablegram or other means of electronic transmission which sets forth or is submitted with information from which it can be determined that the telegram, cablegram or other means of electronic transmission was authorized by the stockholder.

2.15 LIST OF STOCKHOLDERS ENTITLED TO VOTE.

The officer who has charge of the stock ledger of the Corporation shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. The Corporation shall not be required to include electronic mail addresses or other electronic contact information on such list. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting for a period of at least ten (10) days prior to the meeting: (i) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, or (ii) during ordinary business hours, at the Corporation' s principal executive office. In the event that the Corporation determines to make the list available on an electronic network, the Corporation may take reasonable steps to ensure that such information is available only to stockholders of the Corporation. If the meeting is to be held at a place, then the list shall be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present. If the meeting is to be held solely by means of remote communication, then the list shall also be open to the examination of any stockholder during the whole time of the meeting on a reasonably

accessible electronic network, and the information required to access such list shall be provided with the notice of the meeting. Such list shall presumptively determine the identity of the stockholders entitled to vote at the meeting and the number of shares held by each of them.

2.16 INSPECTORS OF ELECTION.

Before any meeting of stockholders, the Board shall appoint an inspector or inspectors of election to act at the meeting or its adjournment and make a written report thereof. The number of inspectors shall be either one (1) or three (3). If any person appointed as inspector fails to appear or fails or refuses to act, then the chairperson of the meeting may, and upon the request of any stockholder or a stockholder' s proxy shall, appoint a person to fill that vacancy.

Such inspectors shall:

(i) determine the number of shares outstanding and the voting power of each, the number of shares represented at the meeting, the existence of a quorum, and the authenticity, validity, and effect of proxies;

(ii) receive votes or ballots;

(iii) hear and determine all challenges and questions in any way arising in connection with the right to vote;

(iv) count and tabulate all votes;

(v) determine when the polls shall close;

(vi) determine the result; and

(vii) do any other acts that may be proper to conduct the election or vote with fairness to all stockholders.

The inspectors of election shall perform their duties impartially, in good faith, to the best of their ability and as expeditiously as is practical. If there are three (3) inspectors of election, the decision, act or certificate of a majority is effective in all respects as the decision, act or certificate of all. Any report or certificate made by the inspectors of election is prima facie evidence of the facts stated therein.

ARTICLE III - DIRECTORS

3.1 POWERS.

Subject to the provisions of the DGCL and any limitations in the certificate of incorporation or these bylaws relating to action required to be approved by the stockholders or by the outstanding shares, the business and affairs of the Corporation shall be managed and all corporate powers shall be exercised by or under the direction of the Board.

3.2 NUMBER OF DIRECTORS.

The authorized number of directors shall be determined from time to time by resolution of the Board, provided the Board shall consist of at least one (1) member. No reduction of the authorized number of directors shall have the effect of removing any director before that director' s term of office expires.

3.3 ELECTION, QUALIFICATION AND TERM OF OFFICE OF DIRECTORS.

Except as provided in Section 3.4 of these bylaws, each director, including a director elected to fill a vacancy, shall hold office until the expiration of the term for which elected and until such director' s successor is elected and qualified or until such director' s earlier death, resignation or removal. Directors need not be stockholders unless so required by the certificate of incorporation or these bylaws. The certificate of incorporation or these bylaws may prescribe other qualifications for directors.

If so provided in the certificate of incorporation, the directors of the Corporation shall be divided into three (3) classes.

3.4 RESIGNATION AND VACANCIES.

Any director may resign at any time upon notice given in writing or by electronic transmission to the Corporation. When one or more directors so resigns and the resignation is effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective, and each director so chosen shall hold office as provided in this section in the filling of other vacancies.

Unless otherwise provided in the certificate of incorporation or these bylaws, vacancies and newly created directorships resulting from any increase in the authorized number of directors shall, unless the Board determines by resolution that any such vacancies or newly created directorships shall be filled by stockholders, be filled only by a majority of the directors then in office, although less than a quorum, or by a sole remaining director. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the director for which the vacancy was created or occurred and until such

director' s successor shall have been elected and qualified. A vacancy in the Board of Directors shall be deemed to exist under these bylaws in the case of the death, removal or resignation of any director.

3.5 PLACE OF MEETINGS; MEETINGS BY TELEPHONE.

The Board may hold meetings, both regular and special, either within or outside the State of Delaware.

Unless otherwise restricted by the certificate of incorporation or these bylaws, members of the Board, or any committee designated by the Board, may participate in a meeting of the Board, or any committee, by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting pursuant to this bylaw shall constitute presence in person at the meeting.

3.6 REGULAR MEETINGS.

Regular meetings of the Board may be held without notice at such time and at such place as shall from time to time be determined by the Board.

3.7 SPECIAL MEETINGS; NOTICE.

Special meetings of the Board for any purpose or purposes may be called at any time by the chairperson of the Board, the chief executive officer, the president, the secretary or a majority of the authorized number of directors.

Notice of the time and place of special meetings shall be:

(i) delivered personally by hand, by courier or by telephone;

(ii) sent by United States first-class mail, postage prepaid;

(iii) sent by facsimile; or

(iv) sent by electronic mail,

directed to each director at that director' s address, telephone number, facsimile number or electronic mail address, as the case may be, as shown on the Corporation' s records.

If the notice is (i) delivered personally by hand, by courier or by telephone, (ii) sent by facsimile or (iii) sent by electronic mail, it shall be delivered or sent at least twenty-four (24) hours before the time of the holding of the meeting. If the notice is sent by United States mail, it shall be deposited in the United States mail at least four (4) days before the time of the holding of the meeting. Any oral notice may be communicated to the director. The notice need not specify the place of the meeting (if the meeting is to be held at the Corporation' s principal executive office) nor the purpose of the meeting.

3.8 QUORUM.

At all meetings of the Board, a majority of the authorized number of directors shall constitute a quorum for the transaction of business. The vote of a majority of the directors present at any meeting at which a quorum is present shall be the act of the Board, except as may be otherwise specifically provided by statute, the certificate of incorporation or these bylaws. If a quorum is not present at any meeting of the Board, then the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum is present.

A meeting at which a quorum is initially present may continue to transact business notwithstanding the withdrawal of directors, if any action taken is approved by at least a majority of the required quorum for that meeting.

3.9 BOARD ACTION BY WRITTEN CONSENT WITHOUT A MEETING.

Unless otherwise restricted by the certificate of incorporation or these bylaws, any action required or permitted to be taken at any meeting of the Board, or of any committee thereof, may be taken without a meeting if all members of the Board or committee, as the case may be, consent thereto in writing or by electronic transmission and the writing or writings or electronic transmission or transmissions are filed with the minutes of proceedings of the Board or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

3.10 FEES AND COMPENSATION OF DIRECTORS.

Unless otherwise restricted by the certificate of incorporation or these bylaws, the Board shall have the authority to fix the compensation of directors.

3.11 REMOVAL OF DIRECTORS.

Except as otherwise provided by the DGCL, the Board of Directors or any individual director may be removed from office at any time (i) with cause by the affirmative vote of the holders of a majority of the voting power of all the then outstanding shares of voting stock of the Corporation entitled to vote at an election of directors (the "Voting Stock") or (ii) without cause by the affirmative vote of the holders of at least sixty six and two thirds percent (66-2/3%) of the voting power of all the then outstanding shares of the Voting Stock.

No reduction of the authorized number of directors shall have the effect of removing any director prior to the expiration of such director' s term of office.

ARTICLE IV - COMMITTEES

4.1 COMMITTEES OF DIRECTORS.

The Board may designate one (1) or more committees, each committee to consist of one (1) or more of the directors of the Corporation. The Board may designate one (1) or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members thereof present at any

meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously appoint another member of the Board to act at the meeting in the place of any such absent or disqualified member. Any such committee, to the extent provided in the resolution of the Board or in these bylaws, shall have and may exercise all the powers and authority of the Board in the management of the business and affairs of the Corporation, and may authorize the seal of the Corporation to be affixed to all papers that may require it; but no such committee shall have the power or authority to (i) approve or adopt, or recommend to the stockholders, any action or matter expressly required by the DGCL to be submitted to stockholders for approval, or (ii) adopt, amend or repeal any bylaw of the Corporation.

4.2 COMMITTEE MINUTES.

Each committee shall keep regular minutes of its meetings and report the same to the Board when required.

4.3 MEETINGS AND ACTION OF COMMITTEES.

Meetings and actions of committees shall be governed by, and held and taken in accordance with, the provisions of:

(i) Section 3.5 (place of meetings and meetings by telephone);

(ii) Section 3.6 (regular meetings);

(iii) Section 3.7 (special meetings and notice);

(iv) Section 3.8 (quorum);

(v) Section 7.12 (waiver of notice); and

(vi) Section 3.9 (action without a meeting),

with such changes in the context of those bylaws as are necessary to substitute the committee and its members for the Board and its members. *However*:

(i) the time of regular meetings of committees may be determined either by resolution of the Board or by resolution of the committee;

(ii) special meetings of committees may also be called by resolution of the Board; and

(iii) notice of special meetings of committees shall also be given to all alternate members, who shall have the right to attend all meetings of the committee. The Board may adopt rules for the government of any committee not inconsistent with the provisions of these bylaws.

ARTICLE V - OFFICERS

5.1 OFFICERS.

The officers of the Corporation shall be a president and a secretary. The Corporation may also have, at the discretion of the Board, a chairperson of the Board, a vice chairperson of the Board, a chief executive officer, a chief financial officer or treasurer, one (1) or more vice presidents, one (1) or more assistant vice presidents, one (1) or more assistant treasurers, one (1) or more assistant secretaries, and any such other officers as may be appointed in accordance with the provisions of these bylaws. Any number of offices may be held by the same person.

5.2 APPOINTMENT OF OFFICERS.

The Board shall appoint the officers of the Corporation, except such officers as may be appointed in accordance with the provisions of Section 5.3 of these bylaws, subject to the rights, if any, of an officer under any contract of employment.

5.3 SUBORDINATE OFFICERS.

The Board may appoint, or empower the chief executive officer or, in the absence of a chief executive officer, the president, to appoint, such other officers and agents as the business of the Corporation may require. Each of such officers and agents shall hold office for such period, have such authority, and perform such duties as are provided in these bylaws or as the Board may from time to time determine.

5.4 REMOVAL AND RESIGNATION OF OFFICERS.

Subject to the rights, if any, of an officer under any contract of employment, any officer may be removed, either with or without cause, by an affirmative vote of the majority of the Board at any regular or special meeting of the Board or, except in the case of an officer chosen by the Board, by any officer upon whom such power of removal may be conferred by the Board.

Any officer may resign at any time by giving written notice to the Corporation. Any resignation shall take effect at the date of the receipt of that notice or at any later time specified in that notice. Unless otherwise specified in the notice of resignation, the acceptance of the resignation shall not be necessary to make it effective. Any resignation is without prejudice to the rights, if any, of the Corporation under any contract to which the officer is a party.

5.5 VACANCIES IN OFFICES.

Any vacancy occurring in any office of the Corporation shall be filled by the Board or as provided in Section 5.2.

5.6 REPRESENTATION OF SHARES OF OTHER CORPORATIONS.

The chairperson of the Board, the president, any vice president, the treasurer, the secretary or assistant secretary of this Corporation, or any other person authorized by the Board or the president or a vice president, is authorized to vote, represent and exercise on behalf of this Corporation all rights incident to any and all shares of any other corporation or corporations standing in the name of this Corporation. The authority

granted herein may be exercised either by such person directly or by any other person authorized to do so by proxy or power of attorney duly executed by such person having the authority.

5.7 AUTHORITY AND DUTIES OF OFFICERS.

All officers of the Corporation shall respectively have such authority and perform such duties in the management of the business of the Corporation as may be designated from time to time by the Board or the stockholders and, to the extent not so provided, as generally pertain to their respective offices, subject to the control of the Board.

ARTICLE VI - RECORDS AND REPORTS

6.1 MAINTENANCE AND INSPECTION OF RECORDS.

The Corporation shall, either at its principal executive office or at such place or places as designated by the Board, keep a record of its stockholders listing their names and addresses and the number and class of shares held by each stockholder, a copy of these bylaws as amended to date, accounting books and other records.

Any stockholder of record, in person or by attorney or other agent, shall, upon written demand under oath stating the purpose thereof, have the right during the usual hours for business to inspect for any proper purpose the Corporation' s stock ledger, a list of its stockholders, and its other books and records and to make copies or extracts therefrom. A proper purpose shall mean a purpose reasonably related to such person' s interest as a stockholder. In every instance where an attorney or other agent is the person who seeks the right to inspection, the demand under oath shall be accompanied by a power of attorney or such other writing that authorizes the attorney or other agent so to act on behalf of the stockholder. The demand under oath shall be directed to the Corporation at its registered office in Delaware or at its principal executive office.

6.2 INSPECTION BY DIRECTORS.

Any director shall have the right to examine the Corporation' s stock ledger, a list of its stockholders, and its other books and records for a purpose reasonably related to his or her position as a director. The Court of Chancery is hereby vested with the exclusive jurisdiction to determine whether a director is entitled to the inspection sought. The Court may summarily order the Corporation to permit the director to inspect any and all books and records, the stock ledger, and the stock list and to make copies or extracts therefrom. The Court may, in its discretion, prescribe any limitations or conditions with reference to the inspection, or award such other and further relief as the Court may deem just and proper.

ARTICLE VII - GENERAL MATTERS

7.1 EXECUTION OF CORPORATE CONTRACTS AND INSTRUMENTS.

The Board, except as otherwise provided in these bylaws, may authorize any officer or officers, or agent or agents, to enter into any contract or execute any instrument in the name of and on behalf of the Corporation; such authority may be general or confined to specific instances. Unless so authorized or ratified by the Board or within the agency power of an officer, no officer, agent or employee shall have any power or

authority to bind the Corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

7.2 STOCK CERTIFICATES; PARTLY PAID SHARES.

The shares of the Corporation shall be represented by certificates or shall be uncertificated. Certificates for the shares of stock, if any, shall be in such form as is consistent with the Certificate of Incorporation and applicable law. Every holder of stock represented by a certificate shall be entitled to have a certificate signed by, or in the name of the Corporation by the chairperson or vice-chairperson of the Board, or the president or vice-president, and by the treasurer or an assistant treasurer, or the secretary or an assistant secretary of the Corporation representing the number of shares registered in certificate form. Any or all of the signatures on the certificate may be a

facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate has ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the Corporation with the same effect as if he were such officer, transfer agent or registrar at the date of issue.

The Corporation may issue the whole or any part of its shares as partly paid and subject to call for the remainder of the consideration to be paid therefor. Upon the face or back of each stock certificate issued to represent any such partly paid shares, upon the books and records of the Corporation in the case of uncertificated partly paid shares, the total amount of the consideration to be paid therefor and the amount paid thereon shall be stated. Upon the declaration of any dividend on fully paid shares, the Corporation shall declare a dividend upon partly paid shares of the same class, but only upon the basis of the percentage of the consideration actually paid thereon.

7.3 SPECIAL DESIGNATION ON CERTIFICATES.

If the Corporation is authorized to issue more than one class of stock or more than one series of any class, then the powers, the designations, the preferences and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights shall be set forth in full or summarized on the face or back of the certificate that the Corporation shall issue to represent such class or series of stock; *provided, however*, that, except as otherwise provided in Section 202 of the DGCL, in lieu of the foregoing requirements, there may be set forth on the face or back of the certificate that the Corporation shall issue to represent such class or series of stock a statement that the Corporation will furnish without charge to each stockholder who so requests the powers, the designations, the preferences and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

7.4 LOST CERTIFICATES.

Except as provided in this Section 7.4, no new certificates for shares shall be issued to replace a previously issued certificate unless the latter is surrendered to the Corporation and cancelled at the same time. The Corporation may issue a new certificate of stock or uncertificated shares in the place of any certificate theretofore issued by it, alleged to have been lost, stolen or destroyed, and the Corporation may require the owner of the lost, stolen or destroyed certificate, or such owner' s legal representative, to give the Corporation a bond sufficient to indemnify it against any claim that may be made against it on account of the alleged loss, theft or destruction of any such certificate or the issuance of such new certificate or uncertificated shares.

7.5 CONSTRUCTION; DEFINITIONS.

Unless the context requires otherwise, the general provisions, rules of construction and definitions in the DGCL shall govern the construction of these bylaws. Without limiting the generality of this provision, the singular number includes the plural, the plural number includes the singular, and the term "person" includes both a corporation and a natural person.

7.6 DIVIDENDS.

The Board, subject to any restrictions contained in either (i) the DGCL or (ii) the certificate of incorporation, may declare and pay dividends upon the shares of its capital stock. Dividends may be paid in cash, in property or in shares of the Corporation' s capital stock.

The Board may set apart out of any of the funds of the Corporation available for dividends a reserve or reserves for any proper purpose and may abolish any such reserve. Such purposes shall include but not be limited to equalizing dividends, repairing or maintaining any property of the Corporation, and meeting contingencies.

7.7 FISCAL YEAR.

The fiscal year of the Corporation shall be fixed by resolution of the Board and may be changed by the Board.

7.8 SEAL.

The Corporation may adopt a corporate seal, which shall be adopted and which may be altered by the Board. The Corporation may use the corporate seal by causing it or a facsimile thereof to be impressed or affixed or in any other manner reproduced.

7.9 TRANSFER OF STOCK.

Shares of the Corporation shall be transferable in the manner prescribed by law and in these bylaws. Shares of stock of the Corporation shall be transferred on the books of the Corporation only by the holder of record thereof or by such holder' s attorney duly authorized in writing, upon surrender to the Corporation of the certificate or certificates representing such shares endorsed by the appropriate person or persons (or by delivery of duly executed instructions with respect to uncertificated shares), with such evidence of the authenticity of such endorsement or execution, transfer, authorization and other matters as the Corporation may reasonably require, and accompanied by all necessary stock transfer stamps. No transfer of stock shall be valid as against the Corporation for any purpose until it shall have been entered in the stock records of the Corporation by an entry showing the names of the persons from and to whom it was transferred.

7.10 STOCK TRANSFER AGREEMENTS.

The Corporation shall have power to enter into and perform any agreement with any number of stockholders of any one or more classes of stock of the Corporation to restrict the transfer of shares of stock of the Corporation of any one or more classes owned by such stockholders in any manner not prohibited by the DGCL.

7.11 REGISTERED STOCKHOLDERS.

The Corporation:

(i) shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends and to vote as such owner;

(ii) shall be entitled to hold liable for calls and assessments the person registered on its books as the owner of shares; and

(iii) shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of another person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

7.12 WAIVER OF NOTICE.

Whenever notice is required to be given under any provision of the DGCL, the certificate of incorporation or these bylaws, a written waiver, signed by the person entitled to notice, or a waiver by electronic transmission by the person entitled to notice, whether before or after the time of the event for which notice is to be given, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders need be specified in any written waiver of notice or any waiver by electronic transmission unless so required by the certificate of incorporation or these bylaws.

ARTICLE VIII - NOTICE BY ELECTRONIC TRANSMISSION

8.1 NOTICE BY ELECTRONIC TRANSMISSION.

Without limiting the manner by which notice otherwise may be given effectively to stockholders pursuant to the DGCL, the certificate of incorporation or these bylaws, any notice to stockholders given by the Corporation under any provision of the DGCL, the certificate of incorporation or these bylaws shall be effective if given by a form of electronic transmission consented to by the stockholder to whom the notice is given. Any such consent shall be revocable by the stockholder by written notice to the Corporation. Any such consent shall be deemed revoked if:

(i) the Corporation is unable to deliver by electronic transmission two (2) consecutive notices given by the Corporation in accordance with such consent; and

(ii) such inability becomes known to the secretary or an assistant secretary of the Corporation or to the transfer agent, or other person responsible for the giving of notice.

However, the inadvertent failure to treat such inability as a revocation shall not invalidate any meeting or other action.

Any notice given pursuant to the preceding paragraph shall be deemed given:

(i) if by facsimile telecommunication, when directed to a number at which the stockholder has consented to receive notice;

(ii) if by electronic mail, when directed to an electronic mail address at which the stockholder has consented to receive notice;

(iii) if by a posting on an electronic network together with separate notice to the stockholder of such specific posting, upon the later of (A) such posting and (B) the giving of such separate notice; and

(iv) if by any other form of electronic transmission, when directed to the stockholder.

An affidavit of the secretary or an assistant secretary or of the transfer agent or other agent of the Corporation that the notice has been given by a form of electronic transmission shall, in the absence of fraud, be prima facie evidence of the facts stated therein.

8.2 DEFINITION OF ELECTRONIC TRANSMISSION.

An "electronic transmission" means any form of communication, not directly involving the physical transmission of paper, that creates a record that may be retained, retrieved and reviewed by a recipient thereof, and that may be directly reproduced in paper form by such a recipient through an automated process.

ARTICLE IX - INDEMNIFICATION

9.1 INDEMNIFICATION OF DIRECTORS AND OFFICERS.

The Corporation shall indemnify and hold harmless, to the fullest extent permitted by the DGCL as it presently exists or may hereafter be amended, any director or officer of the Corporation who was or is made or is threatened to be made a party or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (a "Proceeding") by reason of the fact that he or she, or a person for whom he or she is the legal representative, is or was a director or officer of the Corporation or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust, enterprise or non-profit entity, including service with respect to employee benefit plans, against all liability and loss suffered and expenses (including attorneys' fees) reasonably incurred by such person in connection with any such Proceeding. Notwithstanding the preceding

sentence, except as otherwise provided in Section 9.4, the Corporation shall be required to indemnify a person in connection with a Proceeding initiated by such person only if the Proceeding was authorized in the specific case by the Board.

9.2 INDEMNIFICATION OF OTHERS.

The Corporation shall have the power to indemnify and hold harmless, to the extent permitted by applicable law as it presently exists or may hereafter be amended, any employee or agent of the Corporation who was or is made or is threatened to be made a party or is otherwise involved in any Proceeding by reason of the fact that he or she, or a person for whom he or she is the legal representative, is or was an employee or agent of the Corporation or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust, enterprise or non-profit entity,

including service with respect to employee benefit plans, against all liability and loss suffered and expenses reasonably incurred by such person in connection with any such Proceeding.

9.3 PREPAYMENT OF EXPENSES.

The Corporation shall to the fullest extent not prohibited by applicable law pay the expenses (including attorneys' fees) incurred by any officer or director of the Corporation, and may pay the expenses incurred by any employee or agent of the Corporation, in defending any Proceeding in advance of its final disposition; *provided, however*, that, to the extent required by law, such payment of expenses in advance of the final disposition of the Proceeding shall be made only upon receipt of an undertaking by the person to repay all amounts advanced if it should be ultimately determined that the person is not entitled to be indemnified under this Article IX or otherwise.

9.4 DETERMINATION; CLAIM.

If a claim for indemnification (following the final disposition of such Proceeding) or advancement of expenses under this Article IX is not paid in full within sixty (60) days after a written claim therefor has been received by the Corporation the claimant may file suit to recover the unpaid amount of such claim and, if successful in whole or in part, shall be entitled to be paid the expense of prosecuting such claim to the fullest extent permitted by law. In any such action the Corporation shall have the burden of proving that the claimant was not entitled to the requested indemnification or payment of expenses under applicable law.

9.5 NON-EXCLUSIVITY OF RIGHTS.

The rights conferred on any person by this Article IX shall not be exclusive of any other rights which such person may have or hereafter acquire under any statute, provision of the certificate of incorporation, these bylaws, agreement, vote of stockholders or disinterested directors or otherwise.

9.6 INSURANCE.

The Corporation may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust enterprise or non-profit entity against any liability asserted against him or her and incurred by him or her in any such capacity, or arising out of his or her status as such, whether or not the Corporation would have the power to indemnify him or her against such liability under the provisions of the DGCL.

9.7 OTHER INDEMNIFICATION.

The Corporation' s obligation, if any, to indemnify or advance expenses to any person who was or is serving at its request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust, enterprise or non-profit entity shall be reduced by

any amount such person may collect as indemnification or advancement of expenses from such other corporation, partnership, joint venture, trust, enterprise or non-profit enterprise.

9.8 CONTINUATION OF INDEMNIFICATION.

The rights to indemnification and to prepayment of expenses provided by, or granted pursuant to, this Article IX shall continue notwithstanding that the person has ceased to be a director or officer of the Corporation and shall inure to the benefit of the estate, heirs, executors, administrators, legatees and distributees of such person.

9.9 AMENDMENT OR REPEAL.

The provisions of this Article IX shall constitute a contract between the Corporation, on the one hand, and, on the other hand, each individual who serves or has served as a director or officer of the Corporation (whether before or after the adoption of these bylaws), in consideration of such person' s performance of such services, and pursuant to this Article IX the Corporation intends to be legally bound to each such current or former director or officer of the Corporation. With respect to current and former directors and officers of the Corporation, the rights conferred under this Article IX are present contractual rights and such rights are fully vested, and shall be deemed to have vested fully, immediately upon adoption of theses bylaws. With respect to any directors or officers of the Corporation who commence service following adoption of these bylaws, the rights conferred under this provision shall be present contractual rights and such rights shall fully vest, and be deemed to have vested fully, immediately upon such director or officer commencing service as a director or officer of the Corporation. Any repeal or modification of the foregoing provisions of this Article IX shall not adversely affect any right or protection (i) hereunder of any person in respect of any act or omission occurring prior to the time of such repeal or modification or (ii) under any agreement providing for indemnification or advancement of expenses to an officer or director of the Corporation in effect prior to the time of such repeal or modification.

ARTICLE X - AMENDMENTS

Subject to the limitations set forth in Section 9.9 of these bylaws or the provisions of the certificate of incorporation, the Board is expressly empowered to adopt, amend or repeal the bylaws of the Corporation. Any adoption, amendment or repeal of the bylaws of the Corporation by the Board shall require the approval of a majority of the authorized number of directors. The stockholders also shall have power to adopt, amend or repeal the bylaws of the Corporation; *provided, however*, that, in addition to any vote of the holders of any class or series of stock of the Corporation required by law or by the certificate of incorporation, such action by stockholders shall require the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the then-outstanding shares of the capital stock of the corporation entitled to vote at an election of directors.

INTERMOLECULAR, INC.

CERTIFICATE OF AMENDMENT AND RESTATEMENT OF BYLAWS

The undersigned hereby certifies that he or she is the duly elected, qualified, and acting Secretary of Intermolecular, Inc., a Delaware corporation, and that the foregoing bylaws, comprising 26 pages, were amended and restated on [•], 2011 by the Corporation' s board of directors.

IN WITNESS WHEREOF, the undersigned has hereunto set his or her hand this [•]th day of [•], 2011.

Patrick A. Pohlen
Secretary

Exhibit 3.5

INTERMOLECULAR, INC.

AMENDED AND RESTATED CERTIFICATE OF INCORPORATION

Intermolecular, Inc., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware, hereby certifies that:

ONE: The name of this corporation is Intermolecular, Inc. The original Certificate of Incorporation of this corporation was filed with the Secretary of State of the State of Delaware on June 16, 2004 under the name The BEP Group, Inc.

TWO: The Amended and Restated Certificate of Incorporation in the form of Exhibit A attached hereto has been duly adopted in accordance with the provisions of Sections 242, 245 and 228 of the General Corporation Law of the State of Delaware.

THREE: The text of the Amended and Restated Certificate of Incorporation as heretofore amended or supplemented is hereby restated and further amended to read in its entirety as set forth in Exhibit A attached hereto.

IN WITNESS WHEREOF, this Amended and Restated Certificate of Incorporation has been signed this [•]th day of [•], 2011.

INTERMOLECULAR, INC.

By: _____
David E. Lazovsky, President

EXHIBIT A

AMENDED AND RESTATED CERTIFICATE OF INCORPORATION

OF

INTERMOLECULAR, INC.

ARTICLE I
NAME

The name of the corporation is Intermolecular, Inc. (the "Corporation").

ARTICLE II
REGISTERED OFFICE AND AGENT

The address of the Corporation' s registered office in the State of Delaware is 1209 Orange Street in the City of Wilmington, County of New Castle. The name of its registered agent at such address is The Corporation Trust Company.

ARTICLE III
PURPOSE

The purpose of the Corporation is to engage in any lawful act or activity for which a corporation may be organized under the General Corporation Law of Delaware.

ARTICLE IV
CAPITAL STOCK

A. This Corporation is authorized to issue two classes of stock to be designated, respectively, "Common Stock" and "Preferred Stock." The total number of shares that the Corporation is authorized to issue is Two Hundred and Five Million (205,000,000), divided into Two Hundred Million (200,000,000) shares of common stock, and Five Million (5,000,000) shares of Preferred Stock. The Common Stock shall have a par value of $0.001 per share and the Preferred Stock shall have a par value of $0.001 per share.

B. The Preferred Stock may be issued from time to time in one or more series. The Board of Directors of the Corporation (the "Board of Directors") is hereby authorized, by filing a certificate (a "Certificate of Designation") pursuant to the General Corporation Law of Delaware, to fix or alter from time to time the designation, powers, preferences and rights of the shares of each such series and the qualifications, limitations or restrictions of any wholly unissued series of Preferred Stock, and to establish from time to time the number of shares constituting any such series or any of them; and to increase or decrease the number of shares of any series subsequent to the issuance of shares of that series, but not below the number of shares of such series then outstanding. In case the number of shares of any series shall be decreased in accordance with the foregoing

sentence, the shares constituting such decrease shall resume the status that they had prior to the adoption of the resolution originally fixing the number of shares of such series.

ARTICLE V
BOARD OF DIRECTORS

For the management of the business and for the conduct of the affairs of the Corporation, and in further definition, limitation and regulation of the powers of the Corporation, of its directors and of its stockholders or any class thereof, as the case may be, it is further provided that:

A. (1) The management of the business and the conduct of the affairs of the Corporation shall be vested in the Board of Directors. The number of directors which shall constitute the whole Board of Directors shall be fixed exclusively by one or more resolutions adopted from time to time by the Board of Directors.

(2) The directors shall be divided into three classes, designated as Class I, Class II and Class III, as nearly equal in number as possible. Directors shall be assigned to each class in accordance with a resolution or resolutions adopted by the Board of Directors. At the first annual meeting of stockholders following the effectiveness of this Amended and Restated Certificate of Incorporation (the "Qualifying Record Date"), the term of office of the Class I directors shall expire and Class I directors shall be elected for a full term of three years. At the second annual meeting of stockholders following the Qualifying Record Date, the term of office of the Class II directors shall expire and Class II directors shall be elected for a full term of three years. At the third annual meeting of stockholders following the Qualifying Record Date, the term of office of the Class III directors shall expire and Class III directors shall be elected for a full term of three years. At each succeeding annual meeting of stockholders, directors shall be elected for a full term of three years to succeed the directors of the class whose terms expire at such annual meeting.

Notwithstanding the foregoing provisions of this Article V(A), each director shall serve until his successor is duly elected and qualified or until his death, resignation or removal. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

(3) The Board of Directors or any individual director may be removed from office at any time (i) with cause by the affirmative vote of the holders of a majority of the voting power of all the then outstanding shares of voting stock of the Corporation entitled to vote at an election of directors (the "Voting Stock") or (ii) without cause by the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all the then-outstanding shares of the Voting Stock.

(4) Any vacancies on the Board of Directors resulting from death, resignation, disqualification, removal or other causes and any newly created directorships resulting from any increase in the number of directors shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by the stockholders, except as otherwise provided by law, be filled only by the affirmative vote of a majority of the directors then

in office, even though less than a quorum of the Board of Directors, and not by the stockholders. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the director for which the vacancy was created or occurred and until such director' s successor shall have been elected and qualified.

B. (1) Subject to Article X of the Bylaws of the Corporation, in furtherance and not in limitation of the powers conferred by statute, the Board of Directors is expressly authorized to make, alter or repeal Bylaws of the Corporation. Notwithstanding the foregoing, the Bylaws of the Corporation may be rescinded, altered, amended or repealed in any respect by the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all the then-outstanding shares of the Voting Stock.

(2) The directors of the Corporation need not be elected by written ballot unless the Bylaws of the Corporation so provide.

ARTICLE V
BOARD OF DIRECTORS

A. Subject to the rights of the holders of series of Preferred Stock or any other class of stock or series thereof having a preference over the Common Stock as to dividends or upon liquidation, any action required or permitted to be taken by the stockholders of the Corporation must be effected at a duly called annual or special meeting of the stockholders of the Corporation, and the taking of any action by written consent of the stockholders in lieu of a meeting of the stockholders is specifically denied.

B. Special meetings of the stockholders of the Corporation may be called, for any purpose or purposes, by the Board of Directors, chairperson of the Board of Directors, chief executive officer or president (in the absence of a chief executive officer), but such special meetings may not be called by any other person or persons.

C. Advance notice of stockholder nominations for the election of directors and of business to be brought by stockholders before any meeting of the stockholders of the Corporation shall be given in the manner provided in the Bylaws of the Corporation.

ARTICLE VI
LIABILITY AND INDEMNIFICATION

A. To the maximum extent permitted by the General Corporation Law of Delaware, as the same exists or as may hereafter be amended, a director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director. If the General Corporation Law of Delaware is amended after approval by the stockholders of this Article VI to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the General Corporation Law of Delaware as so amended.

B. The Corporation may indemnify to the fullest extent permitted by law any person made or threatened to be made a party to an action or proceeding, whether criminal, civil, administrative or investigative, by reason of the fact that he, his testator or intestate is or was a director, officer, employee or agent of the Corporation or any predecessor of the Corporation, or serves or served at any other enterprise as a director, officer, employee or agent at the request of the Corporation or any predecessor to the Corporation.

C. Neither any amendment nor repeal of this Article VI, nor the adoption of any provision of the Corporation' s certificate of incorporation inconsistent with this Article VI, shall eliminate or reduce the effect of this Article VI in respect of any matter occurring, or any action or proceeding accruing or arising or that, but for this Article VI, would accrue or arise, prior to such amendment, repeal or adoption of an inconsistent provision.

ARTICLE VII
EXCLUSIVE FORUM

The Court of Chancery of the State of Delaware shall be the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of the Corporation, (ii) any action asserting a claim of breach of a fiduciary duty owed by any director or officer of the Corporation to the Corporation or the Corporation' s stockholders, (iii) any action asserting a claim against the Corporation arising pursuant to any provision of the General Corporation Law of Delaware or this Amended and Restated Certificate of Incorporation or the Bylaws of the Corporation, or (iv) any action asserting a claim against the Corporation governed by the internal affairs doctrine.

ARTICLE VIII
AMENDMENT

Notwithstanding any other provisions of this Amended and Restated Certificate of Incorporation or any provision of law which might otherwise permit a lesser vote or no vote, but in addition to any affirmative vote of the holders of any particular class or series of the Voting Stock required by law, this Amended and Restated Certificate of Incorporation or any Certificate of Designation, the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the then-outstanding shares of the Voting Stock, voting together as a single class, shall be required to alter, amend or repeal Articles V, VI, VII and VIII.

ARTICLE VIII
EFFECTIVE TIME

This Amended and Restated Certificate of Incorporation shall be effective as of 8:00 a.m. Eastern Time on [•], 2011.

* * * *

IN WITNESS WHEREOF, the undersigned have executed this Amended and Restated Certificate of Incorporation on this [•]th day of [•], 2011.

By: _____
David E. Lazovsky
President and Chief Executive Officer

By: _____
Patrick A. Pohlen
Secretary

Exhibit 4.1

INTERMOLECULAR, INC.

The Corporation is authorized to issue two classes of stock, Common Stock and Preferred Stock. A statement of the powers, designations, preferences and relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights as established from time to time, by the Certificate of Incorporation of the Corporation and by any certificate of determination, the number of shares constituting each class and series and the designations thereof, may be obtained by the holder hereof upon request and without charge at the principal office of the Corporation.

The following abbreviations, when used in the inscription on the face of this certificate, shall be construed as though they were written out in full according to applicable laws or regulations:

TEN COM	—	as tenants in common
TEN ENT	—	as tenants by the entireties
JT TEN	—	as joint tenants with right of survivorship and not as tenants in common
COM PROP	—	as community property

UNIF GIFT MIN ACT — _____ Custodian _____
(Cust) (Minor)
under Uniform Gifts to Minors Act _____
(State)

UNIF TRF MIN ACT — _____ Custodian (until age _____)
(Cust)
_____ under Uniform Transfers
(Minor)
to Minors Act _____
(State)

Additional abbreviations may also be used though not in the above list.

FOR VALUE RECEIVED, _____ hereby sell, assign and transfer unto

PLEASE INSERT SOCIAL SECURITY OR OTHER IDENTIFYING NUMBER OF ASSIGNEE

_____

(PLEASE PRINT OR TYPEWRITE NAME AND ADDRESS, INCLUDING ZIP CODE, OF ASSIGNEE)

_____

_____

_____ Shares

of the common stock represented by the within Certificate and do hereby irrevocably constitute and appoint

_____ Attorney

to transfer the said stock on the books of the within named Corporation with full power of substitution in the premises.

Dated _____

NOTICE: The signature(s) to this assignment must correspond with the name(s) as written upon the face of the certificate in every particular, without alteration or enlargement or any change whatsoever.

SIGNATURE(S) GUARANTEED

The signature(s) must be guaranteed by a brokerage firm or a financial institution that is a member of a securities approved Medallion program, such as Securities Transfer Agents Medallion Program (STAMP), Stock Exchanges Medallion Program (SEMP) or New York Stock Exchange, Inc. Medallion Signature Program (MSP).

Exhibit 5.1

[LATHAM & WATKINS LLP LETTERHEAD]

November 7, 2011
Intermolecular, Inc.
3011 North First Street
San Jose, CA 95134

Re: *Form S-1 Registration Statement File No. 333-175877*
Initial Public Offering of up to 11,500,000 Shares of Common Stock
of Intermolecular, Inc.

Ladies and Gentlemen:

We have acted as special counsel to Intermolecular, Inc., a Delaware corporation (the "*Company*"), in connection with the registration statement on Form S-1 under the Securities Act of 1933, as amended (the "*Act*"), filed by the Company with the Securities and Exchange Commission (the "*Commission*") on July 29, 2011 (Registration No. 333-175877) (as amended, the "*Registration Statement*"). The Registration Statement relates to the registration of up to 11,500,000 shares of common stock of the Company, par value $0.001 per share ("*Common Stock*"), 5,678,615 shares of which are being offered by the Company (the "*Company Primary Shares*"), 4,321,385 shares of which are being offered by certain stockholders of the Company (the "*Selling Stockholder Primary Shares*") and up to 1,500,000 shares of which may be purchased by the underwriters pursuant to an option to purchase additional shares of Common Stock, 1,358,728 shares of which may be purchased from the Company (the "*Company Option Shares*" and, together with the Company Primary Shares, the "*Company Shares*") and 141,272 shares of which may be purchased from certain stockholders of the Company (the "*Selling Stockholder Option Shares*" and, together with the Selling Stockholder Primary Shares, the "*Selling Stockholder Shares*"). The Company Shares and the Selling Stockholder Shares are referred to herein collectively as the "*Shares*." The term "Shares" shall include any additional shares of Common Stock registered by the Company pursuant to Rule 462(b) under the Act in connection with the offering contemplated by the Registration Statement. This opinion is being furnished in connection with the requirements of Item 601(b)(5) of Regulation S-K under the Act, and no opinion is expressed herein as to any matter pertaining to the contents of the Registration Statement or related prospectus (the "*Prospectus*"), other than as expressly stated herein with respect to the issue of the Shares.

As such counsel, we have examined such matters of fact and questions of law as we have considered appropriate for purposes of this letter. With your consent, we have relied upon certificates and other assurances of officers of the Company and others as to factual matters without having independently verified such factual matters. We are opining herein as to the General Corporation Law of the State of Delaware (the "*DGCL*"), and we express no opinion with respect to any other laws.

Subject to the foregoing and the other matters set forth herein, it is our opinion that, as of the date hereof:

1. When the Company Shares shall have been duly registered on the books of the transfer agent and registrar therefor in the name or on behalf of the purchasers and have been issued by the Company against payment therefor (not less than par value) in the circumstances contemplated by the form of underwriting agreement most recently filed as an exhibit to the Registration Statement, the issue and sale of the Company Shares will have been duly authorized by all necessary corporate action of the Company, and the Company Shares will be validly issued, fully paid and nonassessable. In rendering the foregoing opinion, we have assumed that the Company will comply with all applicable notice requirements regarding uncertificated shares provided in the DGCL.

2. The Selling Stockholder Shares have been duly authorized by all necessary corporate action of the Company and are validly issued, fully paid and nonassessable.

This opinion is for your benefit in connection with the Registration Statement and may be relied upon by you and by persons entitled to rely upon it pursuant to the applicable provisions of the Act. We consent to your filing this opinion as an exhibit to the Registration Statement and to the reference to our firm in the Prospectus under the heading "Legal Matters." We further consent to the incorporation by reference of this letter and consent into any registration statement or post-effective amendment to the Registration Statement filed pursuant to Rule 462(b) with respect to the Shares. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ Latham & Watkins LLP

QuickLinks

[LATHAM & WATKINS LLP LETTERHEAD]

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

[*] COLLABORATIVE DEVELOPMENT PROGRAM AGREEMENT

This [*]**COLLABORATIVE DEVELOPMENT PROGRAM AGREEMENT** ("**Agreement**") is made as of March 15, 2010 ("*Effective Date*") by and among **TOSHIBA CORPORATION** doing business at 1-1, Shibaura 1-chome, Minato-ku, Tokyo 105-8001, Japan (together with its Affiliates, "**Toshiba**"), **SANDISK CORPORATION** doing business at 601 McCarthy Boulevard, Milpitas, CA 95035 USA (together with its Affiliates, "**SanDisk**"), and **INTERMOLECULAR, INC**. doing business at 2865 Zanker Road, San Jose, CA 95134 USA (together with its Affiliates, "**Intermolecular**"). Toshiba, SanDisk and Intermolecular shall be referred to herein individually as a party or collectively as the parties.

BACKGROUND

WHEREAS, Toshiba, SanDisk and Intermolecular desire to enter into a collaborative development program for the further development of certain [*] ("[*]") technology as specified in this Agreement, and based on (a) the prior work between SanDisk and Intermolecular to develop [*] from [*] through [*], (b) subsequent [*] development work conducted independently by Intermolecular from [*] through [*], (c) work provided by Toshiba and SanDisk, and (d) the collaborative efforts of the parties under this Agreement;

NOW THEREFORE, in consideration of the mutual promises and covenants contains herein, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, intending to be legally bound, the parties agree as follows:

1. DEFINITIONS

1.1 "**Affiliate**" shall mean any entity controlling, controlled by or under common control with, a party to this Agreement. For purposes of this Agreement, the direct or indirect ownership of more than fifty percent (50%) of the outstanding securities of, or voting interest in, an entity shall be deemed to constitute control.

1.2 "**Category One IP**" shall mean the patents and patent applications owned by [*] covering [*] including that listed in Exhibit A. Exhibit A may be updated and/or amended from time to time as approved in writing by [*].

1.3 "**Category Two IP**" shall mean (a) [*] specifically designated by [*] for [*] in a Collaborative Development Program, or (b) [*] agreed upon by [*] for [*] in the CDP.

1.4 "**Category Three IP**" shall mean [*], as among the parties hereto, [*] by [*] and based [*] on [*] or other [*] or [*]; provided that any [*] activities that may result in Technology or Intellectual Property Rights in this category shall be pre-approved in writing by the parties in accordance with Section 2.1.2.

1.5 "**Category Four IP**" shall mean [*], as among the parties hereto, [*] by [*] and based [*] on [*] (or other [*] or [*] as determined and confirmed by the IP Committee)..

1.6 "**Category Five IP**" shall mean [*], as among the parties hereto, [*] by [*] and based [*] on [*] (or other [*] or [*] as determined and confirmed by the IP Committee).

1.7 "**Category Six IP**" shall mean [*], as among the parties hereto, [*] by [*] and based [*] on [*] (or other [*] or [*] as determined and confirmed by the IP Committee).

1.8 "**Category Seven IP**" shall mean [*] on the one hand and [*] on the other hand, and based [*] on [*] (or other [*] or [*] as determined and confirmed by the IP Committee).

1.9 "**Category Eight IP**" shall mean [*] by [*] on the one hand and [*]on the other hand, and based [*] on [*] (or other [*] or [*] as determined and confirmed by the IP Committee)..

1.10 "**CDP IP**" shall mean collectively or separately [*] and [*].

1.11 "**CDP Chip**" shall mean [*].

1.12 "**Non-CDP Chip**" shall mean one or more Die packaged or otherwise connected together, utilizing CDP IP outside the CDP Field.

1.13 "**Collaborative Development Program**" or "CDP" shall mean the activities that are conducted by Toshiba, SanDisk and Intermolecular under this Agreement in accordance with the Development Plan.

1.14 "**CDP Field**" shall mean [*] semiconductor integrated circuit [*] chips.

1.15 "**Confidential Information**" shall mean any information disclosed by one party to any other party in connection with this Agreement, whether in electronic, written, graphic, oral, machine readable or other tangible or intangible form, that is marked or identified at the time of disclosure as "confidential" or "proprietary" or in some other manner so as to clearly indicate its confidential nature. Except as specifically provided in Section 6 below, the terms and conditions of this Agreement shall constitute Confidential Information of each of the parties.

1.16 "**Development Plan**" shall mean the written plan describing the activities to be conducted by each party and the target specifications to be met for deliverables during the CDP that is attached hereto as Exhibit B.

1.17 "**Die**" shall mean a semiconductor integrated circuit in die form.

1.18 "**Foreground IP**" shall mean the [*] and [*] developed under the CDP as [*] and [*]; provided however, that Foreground IP excludes HPC Technology, HPC Derivatives, Non [*] Foreground IP and [*] Design IP. For purposes of categorization, conventional inventorship rules apply (except for [*] and [*], which shall be subject to Sections 3.2.2 and 3.2.3).

1.19 "**FTE**" shall mean an Intermolecular employee assigned to the CDP, based on approximately one hundred sixty-six (166) hours of professional services performed by one

qualified person during a one month period, or the same number of hours in aggregate performed by two or more qualified persons during a one month period

1.20 "**HPC Derivatives**" shall mean all improvements, derivatives and modifications to any HPC Technology, developed by any party during the course of the CDP based on access to or use of Intermolecular-provided tools, software or information enabling the use of HPC Technology.

1.21 "**HPC Technology**" shall mean all Technology, including the Workflow Infrastructure, and without reference to any Toshiba or SanDisk Confidential Information or any Toshiba and SanDisk Contributed Background IP, used for the simultaneous, parallel, or rapid serial: (i) design, (ii) synthesis, (iii) processing, (iv) process sequencing, (v) process integration, (vi) device integration, (vii) analysis, or (viii) characterization of more than two (2) compounds, compositions, mixtures, processes, or synthesis conditions, or the structures derived from such on a single wafer. It is understood that any such test vehicles include physical and/or electrical characterization devices such as test structures or chips used in the design, process development, manufacturing process qualification, and manufacturing process control of integrated circuit devices to the extent that such devices are used in simultaneous, parallel, and rapid serial processing. Nothing in this Agreement shall limit the use of test wafers used in research and development using nominally uniform processing. It is also understood that HPC Technology does not include the use of commercially available equipment in commercial manufacturing for nominally uniform processing of one or more identical integrated circuits on a single substrate, or the use of such equipment in research and development for nominally uniform processing of one or more integrated circuits on a single substrate. Toshiba and/or SanDisk existing or practiced technology or methodologies, and/or publicly known tools and methods, are excluded from the definition of HPC Technology. HPC Technology excludes [*] Design IP.

1.22 "**IM** [*] **Developed Technology**" mean the [*] Technology developed independently by Intermolecular subsequent to [*] and prior to [*] that is attached hereto as Exhibit C. Such exhibit shall not restrict or modify Toshiba' s and SanDisk' s rights with respect to their respective independent ownership rights of intellectual property rights and technology independently developed by them respectively.

1.23 "**Informatics Software**" shall mean the Intermolecular-proprietary software platform enabling the operation of Dry and Wet Workflows and the gathering and sharing of CDP information through a web-based interface.

1.24 "**Initial Term**" means the two (2) year period from the Effective Date.

1.25 "**Intellectual Property Rights**" shall mean all U.S. and foreign rights in and to all (i) patents and patent applications, including all divisions, substitutions, continuations, continuation-in-part applications, and reissues, re-examinations and extensions thereof, (ii) copyrights and other rights in works of authorship, (iii) unpatented information, trade secrets, know-how, invention disclosures, engineering notebooks, confidential information, data, or materials, (iv) mask work rights, and (v) any other intellectual or other proprietary rights of any kind now known or hereafter recognized in any jurisdiction.

1.26 "**Intermolecular Background IP**" shall mean (i) the Original CDP Developed Technology; (ii) the IM [*] Developed Technology; (iii) all Intellectual Property Rights in subsections (i) and (ii); and (iv) Technology and Intellectual Property Rights created, conceived or developed by or for Intermolecular outside of or independently from the Collaborative Development Program, provided that each of (i), (ii), (iii) and (iv) are to the extent unanimously preapproved in writing by the IP Committee for submission to the CDP. If Toshiba and/or SanDisk do not approve for submission any Technology or Intellectual Property Rights proposed for inclusion by Intermolecular under categories (i), (ii) and (iii) above, such Technology or Intellectual Property Rights shall not be deemed licensed under Section 4 below and shall be excluded from the covenant set forth in Section [*] and, if a patent or patent application, shall not be subject to the provisions of Section [*]. Intermolecular Background IP excludes HPC Technology.

1.27 "**Intermolecular Customer**" shall mean a Third Party that engages in a development program with Intermolecular where Intermolecular performs development services in the field of semiconductors, including but not limited to semiconductor materials, semiconductor device technology, and/or semiconductor manufacturing equipment, process and characterization technology on behalf of and/or in collaboration with such Third Party, in a manner similar to the development program described in this Agreement.

1.28 "**Licensed IP**" shall mean [*] and [*].

1.29 "[*]" shall mean [*].

1.30 "[*] **Foreground IP**" shall mean the materials, process, structure and other Technology included in [*] developed pursuant to the CDP, but not [*] Design IP, and all Intellectual Property Rights therein or thereto.

1.31 "**Non** [*] **Foreground IP**" shall mean the materials, process, structure and other Technology included in [*] that are not [*] based and all Intellectual Property Rights therein or thereto. The parties agree that no such Non [*] Foreground IP are intended to be developed pursuant to the CDP.

1.32 "[*] **Technology**" means [*] derived from CDP IP, that [*] per physical [*]; provided that such [*] Technology-based devices (i) provide similar functional capabilities as the [*] -based [*] technology produced by SanDisk and Toshiba as of the Effective Date and (ii) are used for [*] per physical [*] at the time of shipment by SanDisk or Toshiba.

1.33 "**New** [*] **Concepts**" shall mean Intellectual Property Rights and Technology that is contributed by Toshiba and/or SanDisk that the parties agree to develop pursuant to the CDP that does not contain, and is not a derivative, modification, improvement and enhancement of, the Intermolecular Background IP or the Toshiba and SanDisk Contributed Background IP.

1.34 "**Original CDP Developed Technology**" shall mean the [*] and [*] Documentation as agreed upon by SanDisk and Intermolecular on [*], and attached hereto as Exhibit D. Such exhibit shall not restrict or modify Toshiba' s and SanDisk' s rights with respect

to their respective independent ownership rights of intellectual property rights and technology independently developed by them respectively.

1.35 "**CDP Product**" shall mean a product containing one or more CDP Chips manufactured and offered for sale by or for Toshiba or SanDisk. CDP Products may be delivered to customers in any form including wafer form, packaged and unpackaged [*] Die, and finished goods.

1.36 "**Non-CDP Product**" shall mean a product containing one or more Non-CDP Chips manufactured and offered for sale by or for Toshiba or SanDisk. Non-CDP Products may be delivered to customers in any form including wafer form, packaged and unpackaged Die, and finished goods.

1.37 "[*]" shall mean a [*], including the [*], and [*] if any are needed, and the [*].

1.38 "[*] **Design IP**" shall mean any of the following arising or resulting from the Development Program, including any Intellectual Property Rights or Technology therein: (i) [*] Technology device designs; (ii) [*] Technology circuit designs; (iii) [*] Technology chip architectures; (iv) [*] process integration technology; (v) [*] steering elements (e.g. [*]); (vi) device and chip operation and testing; and (vii) any and all [*].

1.39 [**intentionally left blank**]

1.40 "**Technology**" shall mean tangible embodiments of Intellectual Property Rights, whether in electronic, written or other media, including techniques, methodologies, processes, designs, test vehicles, synthetic procedures, systems, or any of combinations of the foregoing, as well as any directories, source code, object code, firmware, technical documentation, specifications, requirements, designs, design drawings, design files, and quality control data, schemes, schematics, diagrams, bills of material, netlists, build instructions, test reports, mask works, data sheets, reference designs, net lists, RTL, algorithms, formulae, photomasks, databases, lab notebooks, manuscripts, records, prototypes, samples, studies, and invention disclosure forms.

1.41 "**Term**" shall mean the Initial Term and any renewals thereof pursuant to Section 11.1.

1.42 "**Toshiba and SanDisk Contributed Background IP**" shall mean Intellectual Property Rights and Technology related [*] owned by Toshiba and/or SanDisk that is provided by Toshiba and/or SanDisk to Intermolecular at any time under the CDP. All such Technology or Intellectual Property Rights shall be specified in the Development Plan or specified by Toshiba or SanDisk during the CDP under Section 2.2.

1.43 "**Third Party**" shall mean any person or entity other than Toshiba, SanDisk and Intermolecular, and any permitted assigns.

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

1.44 "**Third Party Licensee**" shall mean an entity other than Toshiba, any Toshiba Affiliate, SanDisk or any SanDisk Affiliate to whom a license to all or a portion of the Licensed IP or a license to any Joint IP, as applicable, is granted under Section 5.10.

1.45 "**Third Party CDP Product**" shall mean a product (which is neither a CDP Product nor a Non-CDP Product) containing one or more CDP Chips manufactured and offered for sale by or for a Third Party Licensee to a customer other than SanDisk and/or Toshiba. Third Party CDP Products may be delivered to customers in any form including [*].

1.46 "**Third Party Non-CDP Product**" shall mean a product (which is neither a CDP Product nor a Non-CDP Product) containing one or more Non-CDP Chips manufactured and offered for sale by or for a Third Party Licensee to a customer other than SanDisk and/or Toshiba. [*].

1.47 "**Workflow Infrastructure**" shall mean the HPC processing tools implemented by Intermolecular ([*]), characterization infrastructure (including physical metrology and electrical test equipment), and the Informatics Software designed or optimized by Intermolecular and installed at Intermolecular' s facilities for use by the parties to perform the development activities specified in the Development Plan, as more fully described in Exhibit E attached hereto.

2. COLLABORATIVE DEVELOPMENT PROGRAM

2.1 **CDP**.

2.1.1 Pre-CDP Workshop. Immediately after the Effective Date of this Agreement, Intermolecular, Toshiba and SanDisk shall set up a technical workshop in a manner and schedule to be agreed by the parties for informing Toshiba and SanDisk of the Technology which are described in Exhibits C and D attached hereto. Exhibits C and D are to be provided to Toshiba and SanDisk on the Effective Date. Promptly but no later than [*] days following such technical workshop, the Operating Committee will determine which items

will be listed on Exhibit H (which shall be the Intermolecular Background IP for the CDP). The parties confirm and agree that items not initially included in Exhibit H (but listed in Exhibit C or D) may at any time prior to the licensing election described in Section 4.2.2, upon Toshiba' s and SanDisk' s approval, be added to and included in Exhibit H. In addition, at any time prior to the licensing election described in Section 4.2.2, Exhibit H may be updated in accordance with Section 1.26(iv).

2.1.2 Development Plan. Subject to the terms and conditions set forth herein, Toshiba, SanDisk and Intermolecular will conduct this Collaborative Development Program in accordance with the Development Plan within the scope of the CDP Field. The Development Plan shall contain the activities to be conducted by each party, the information sharing processes to be used during the CDP, the deliverables to be produced in the CDP, the target specifications to be met for such deliverables and metrics to be met by each party. For the avoidance of doubt, no Toshiba and SanDisk Contributed Background IP shall be considered part of the CDP unless expressly identified as "Toshiba and SanDisk Contributed Background IP" in the Development Plan, or otherwise pre-approved by Toshiba and SanDisk in writing.

2.1.3 Intermolecular. Intermolecular agrees to provide [*] Intermolecular FTEs and use of its Workflow Infrastructure for Intermolecular to perform the specified activities at Intermolecular facilities under the Development Plan. The fees to support these resources are set forth in Section 5. In return for the services to be performed by Intermolecular and for the Workflow Infrastructure provided by Intermolecular for use in the CDP, Toshiba and SanDisk agree to pay the fees as set forth in Sections 5.1 and 5.2 in accordance with the terms of this Agreement.

2.1.4 Change Orders. Any of the parties may propose to the other parties from time to time to change the Development Plan, provided the change is within the CDP Field. As part of such change process, Intermolecular, Toshiba and/or SanDisk may propose the introduction of new [*] concepts and materials that are not part of the initial Development Plan, including without limitation New [*] Concepts. Any such party suggesting a change shall provide a written proposal to the other parties detailing the proposed change and the anticipated effect on scheduling and cost. The parties agree to promptly discuss and decide upon any proposed changes to the Development Plan, including introduction of New [*] Concepts. All changes to the Development Plan, including new forms of experiments, must be approved by Toshiba and SanDisk in writing; provided that Toshiba and SanDisk agree to consider Intermolecular' s requested changes in good faith. Any such decision to amend the Development Plan shall include any changes to pricing, cost allocations, licensing terms, activities, responsibilities, development schedule or other provisions related to implementation of any such change. If the proposed change by SanDisk and/or Toshiba requires additional capital expenditures or substantial additional resources by Intermolecular beyond the then-current CDP for the then-current Development Plan, the amended Development Plan will be subject to Intermolecular' s approval. If Toshiba and SanDisk do not agree in writing to a change to the Development Plan, the Development Plan in existence prior to the proposed change shall continue in full force and effect.

2.2 **Committees**.

2.2.1 Operating Committee. The parties will establish an operating committee (the "**Operating Committee**") to oversee the performance of the Collaborative Development Program, monitor progress of the CDP, resolve any disputes or disagreements between the Project Managers (as defined below) and escalate any remaining disputes, as necessary, and ensure open communications among the parties. The Operating Committee will initially be comprised of at least one (1) representative from each party, including the Project Manager of each party, or such other equal number of representatives as the parties may from time to time agree in writing, with each party' s representatives selected by that party, provided that the Project Manager of such party remains on the Operating Committee. Any party may replace any of its Operating Committee members at any time, upon written notice to the other party. The Operating Committee will meet on a quarterly basis or as otherwise agreed by the parties, at locations or in a manner agreed by the parties. All decisions of the Operating Committee shall be made by SanDisk and Toshiba, subject to Section 2.1.4.

2.2.2 IP Committee. The parties will also establish a committee (the "**IP Committee**"), reporting to the Operating Committee, that will be responsible for reviewing invention disclosures, patent filing decisions and Intellectual Property Rights ownership

decisions resulting from activities under the CDP, including without limitation, determination of the Intellectual Property Rights, if any, in all Technology developed in the CDP. The IP Committee will meet on at least a calendar quarterly basis or as otherwise agreed to by the parties. The IP Committee shall consist of two (2) members from each party, one from its technical employee and the other one from its patent attorney, agent or IP staff member. All decisions of the IP Committee must be made by unanimous vote of the parties, with each party having a single vote. If there is disagreement among the parties regarding the existence or ownership of Intellectual Property Rights or Technology, the parties will escalate the dispute as appropriate within their respective organizations as promptly as possible for resolution; provided, however, that no party shall publicly disclose or otherwise publish any information, or otherwise jeopardize the opportunity to file a patent application, regarding an invention claimed by another party hereunder resulting from or relating to CDP activities during any period where the ownership of such claimed invention has not yet been determined. Each party agrees that it will not unreasonably delay or prolong resolution of any ownership, inventorship or other claim regarding the Technology or Intellectual Property Rights.

2.3 **Access to Information**. The parties acknowledge and agree that each party shall provide the other parties timely and sufficient access to information reasonably necessary to carry out their obligations under all phases of the Collaborative Development Program. Further, Intermolecular agrees that it shall immediately provide both Toshiba and SanDisk with any information made available to it during the course of its activities in the CDP as set forth in Section 2.1.2. The parties agree to comply with all information sharing processes set forth in the Development Plan.

2.4 **Project Managers**. Each party hereby appoints the initial principal point of contact set forth in the Development Plan to be its project manager for the CDP, who shall coordinate and act as a liaison with the other parties with respect to the Development Plan (each a "**Project Manager**"). A party may from time to time change its Project Manager upon written notice to the other parties.

2.5 **Development Records**. Each party agrees to maintain reasonable records of the activities it performs under the Development Plan, and cause such records to be maintained in sufficient detail and in good scientific manner as will properly reflect all material work done and results achieved, including information sufficient to establish dates of conception and reduction to practice of inventions.

3. IP OWNERSHIP

3.1 **Prior and Independent Technology**. Each party shall retain all right, title and interest in and to all materials, Technology, concepts, know-how, inventions, discoveries, works of authorship, and all related Intellectual Property Rights created, conceived or developed by or for that party prior to the Effective Date. For Toshiba and SanDisk, this includes all Toshiba and SanDisk Contributed Background IP, and for Intermolecular this includes all Intermolecular Background IP, including [*]. In addition, each party shall retain all right, title and interest in and to all materials, Technology, concepts, know-how, inventions, discoveries, works of authorship, and all related Intellectual Property Rights created, conceived or developed by or for that party outside of or independently from the Collaborative Development Program without use or incorporation of any Confidential Information,

Technology or Intellectual Property Rights of or received from any other party pursuant to the Agreement.

3.2 **Foreground IP**.

3.2.1 Intermolecular Sole Ownership of Foreground IP. Intermolecular shall be the sole owner of [*].

3.2.2 Toshiba and SanDisk Sole Ownership of Foreground IP. Toshiba and SanDisk shall be the sole owners of (a) all [*] and [*], and (b) all Technology and Intellectual Property Rights (other than patents and patent applications) in and to [*]. The actual division of ownership of such Technology and Intellectual Property Rights shall be determined between Toshiba and SanDisk based on separate agreements between Toshiba and SanDisk.

3.2.3 Joint Ownership Among the Parties. Intermolecular, Toshiba and SanDisk shall jointly own (a) all Technology and Intellectual Property Rights in [*] and (b) any patents and patent applications resulting solely from inventions under [*] (collectively, all of the foregoing constitute "Joint IP"). Except as expressly provided elsewhere in this Agreement, each party has the right to use, fully exploit, disclose or otherwise dispose of such Joint IP for any purpose without consent of or accounting to the other party.

3.2.4 [*] Design IP and [*]Foreground IP. Notwithstanding anything to the contrary in this Agreement, as among the parties and regardless of creator, Toshiba and SanDisk based on existing agreements between Toshiba and SanDisk, shall own all right, title and interest, including Intellectual Property Rights, in and to the [*] Design IP and Non [*] Foreground IP and any derivatives, modifications, improvements to and enhancements thereto and any Intellectual Property Rights in any of the foregoing. Intermolecular hereby assigns, and agrees to assign to Toshiba and SanDisk, as applicable, in the future when they are first fixed in a tangible medium or reduced to practice, as applicable, all Intellectual Property Rights in and to any [*] Design IP and [*] Foreground IP that Intermolecular may obtain as a result of Intermolecular' s activities under the CDP.

3.3 **HPC Technology and Derivatives**. Notwithstanding any other provision to the contrary, as among the parties and regardless of creator, Intermolecular shall own all right, title and interest, including Intellectual Property Rights, in and to HPC Technology and any HPC Derivatives, and all Intellectual Property Rights in any of the foregoing. [*].

3.4 **Cooperation**. Each party agrees to execute all papers, including patent applications and invention assignments, and otherwise agrees to assist the other party, as reasonably required and at the other party' s reasonable expense, to perfect in the applicable party the rights, title and other interests in their respective inventions which this Agreement designates such party to own. Without limiting the foregoing, the parties agree to use reasonable efforts to keep the other parties informed as to the status of patent matters with respect to any Joint IP, [*] and [*].

3.5 **Patent Prosecution**. Intermolecular shall have the first right to prepare, file, prosecute and maintain, at its own expense and in consultation with the other parties, any patent applications claiming inventions in the Foreground IP owned solely by Intermolecular. The IP Committee will determine on a case-by-case basis which party shall be responsible for preparing,

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filing, prosecuting and maintaining, in consultation with the other parties, any patent applications claiming inventions in the Foreground IP that constitute Joint IP, and the cost allocation will be determined at such time by the parties. In the event that Intermolecular makes a decision (and in such event Intermolecular shall promptly inform the applicable parties) that Intermolecular will not file, prosecute or maintain any such patent or patent application in a Joint IP, [*] or [*] invention, or undertake such other activities described above, then the applicable party that jointly owns (or desires to further prosecute) such invention shall have the right to assume such activities at its own expense but without affecting the ownership and license provisions set forth in Sections 3 and 4 hereof. Nothing in this Agreement shall limit or restrict a party' s rights to file or prosecute any solely-owned invention unless that party has agreed to assign such invention and Intellectual Property Rights therein to another party pursuant to the terms and conditions of this Agreement.

3.6 **Enforcement**.

3.6.1 Joint IP. With prior consultation to Toshiba and SanDisk, Intermolecular shall have the initial right, but not the obligation, to take reasonable legal action to enforce Intellectual Property Rights in any Joint IP against commercially material infringements. If Intermolecular does not take action sufficient to halt such infringement within [*] following receipt of notice of such infringement, then either Toshiba or SanDisk, as applicable, shall have the right, but not the obligation, to take action to stop such infringement at its sole expense. Notwithstanding the foregoing, if Toshiba and SanDisk elect to receive [*] license under Section 4.2 below, then either Toshiba or SanDisk, as applicable based on inventorship or upon written agreement between Toshiba and SanDisk, shall have the initial right, but not the obligation, to take reasonable legal action to enforce any Intellectual Property Rights in Joint IP against commercially material infringements.

3.6.2 [*] Licensed Intellectual Property Rights. During the Initial Term, and after the Initial Term if Toshiba and SanDisk both exercise their option to take [*] license in accordance with Section 4.2, Toshiba and/or SanDisk shall have the right, but not the obligation, to take reasonable legal action to enforce the Licensed IP without consultation with Intermolecular. If one or both of such parties decides to take legal action to enforce such Licensed IP against a Third Party, then the enforcing party may request that Intermolecular participate (and Intermolecular shall participate) in such action as may be reasonably necessary to enforce such rights; provided, however, that Intermolecular' s participation shall be conditioned upon the enforcing party bearing Intermolecular' s reasonable costs to participate in such enforcement action and indemnifying Intermolecular against any liabilities, losses, damages, costs and expenses, including reasonable attorneys' fees, incurred by Intermolecular as a result of participating in any such action.

3.6.3 Cooperation; Costs. Each party agrees to render such reasonable assistance in connection with enforcement activities described in this Section 3.6 as the enforcing party may request. Costs of maintaining any such action shall be paid by and shall be the responsibility of the party bringing the action.

3.6.4 Recoveries. Subject to the payment obligations set forth in Section 5, any damages or settlement recovered from any action under this Section 3.6 shall belong to the party bringing the action.

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4. LICENSES

4.1 **Collaboration Licenses**.

4.1.1 Intermolecular License to Toshiba and SanDisk. Subject to the terms and conditions of this Agreement, including payment of applicable license fees, Intermolecular grants to Toshiba and SanDisk for the Term [*] non-transferable [*] license under and to the Intermolecular Background IP (including the [*]), HPC Technology, HPC Derivatives and any other Technology and/or Intellectual Property Rights Intermolecular contributes to the development efforts under the CDP (including the [*]), to engage in the CDP and perform

the activities set forth in the Development Plan. Notwithstanding the foregoing [*] license, Intermolecular reserves the right to use the Technology and Intellectual Property Rights licensed in this Section 4.1.1 solely for the purpose of Intermolecular performing its duties under the CDP, and not for the benefit of any Third Party.

4.1.2 Toshiba and/or SanDisk License to Intermolecular. Subject to the terms and conditions of this Agreement, Toshiba and SanDisk each grant to Intermolecular for the Term [*] non-transferable [*] license under and to the Toshiba and SanDisk Contributed Background IP and to and any other Technology and/or Intellectual Property Rights either party contributes to the development efforts under the CDP, solely to engage in the CDP and perform the activities set forth in the Development Plan, and not for the benefit of any Third Party.

4.2 **Technology License**.

4.2.1 Technology License.

A. Within CDP Field. Subject to the terms and conditions of this Agreement, including but not limited to Section 4.2.2 and Section 6 below, Intermolecular grants Toshiba and SanDisk a worldwide, [*] (except as to Intermolecular for purposes of performing its activities related to this Agreement), [*], non-transferable license within the CDP Field, without right of sublicense, under and to Intermolecular Background IP, the Licensed IP and any other Technology and/or Intellectual Property Rights Intermolecular contributes to the development efforts under the CDP to (i) use and modify such Technology and/or applicable Intellectual Property Rights including know-how; and (ii) use, make, have made, import, offer to sell, sell, lease, copy, modify, distribute, and otherwise dispose of, and exploit, the CDP Products.

B. Outside CDP Field. In addition to Section 4.2.1(A), and subject to the terms and conditions of this Agreement, including but not limited to Section 4.2.2 and Section 6 below, Toshiba' s and/or SanDisk' s license shall be extended at its respective discretion to activities outside the CDP Field, without right of sublicense, under this Section 4.2.1(B) for Non-CDP Products in fields to be agreed upon by

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Intermolecular and the applicable party in advance as set forth in this Section 4.2.1(B). On a case-by-case basis, Toshiba and SanDisk shall (i) notify Intermolecular in writing in advance for each instance where Toshiba or SanDisk, as applicable, desires to extend the use of the Technology licensed under Section 4.2.1(A) into a new field of use on [*] basis and the license under Section 4.2.1(A) will be extended to that field and apply to the specified Non-CDP Products unless Intermolecular notifies Toshiba or SanDisk promptly in writing that such proposed Non-CDP Product or field of use is subject to a pre-existing obligation of Intermolecular to grant [*] license to such Non-CDP Product or field to a Third Party; and (ii) obtain Intermolecular' s prior written approval to extend the use of the Technology licensed under Section 4.2.1(A) into a new field of use or new Non-CDP Product on [*] basis, as applicable. If extended, Toshiba and SanDisk shall be granted a worldwide, [*] non-transferable license under and to the applicable Intermolecular Background IP and to the Licensed IP Intermolecular contributes to the development efforts under the CDP to (i) use and modify such Technology; and (ii) use, make, have made, import, offer to sell, sell, lease, copy, modify, distribute, and otherwise dispose of, and exploit, the specified Non-CDP Products outside the CDP Field in the applicable field;

provided however, that Non-CDP Product Fee [*] and [*] under this Section 4.2.1(B) shall be [*] percent ([*]%) of the [*] and [*] applicable to Section 4.2.1(A), and the fees payable to Intermolecular for Third Party CDP Products and Third Party Non-CDP Products for such extensions shall be subject to Section 5.10 below. Such [*], and [*] applicable to this Section 4.2.1(B) shall be separately accounted from [*], and [*] applicable within the CDP Field.

4.2.2 License Election. Each of Toshiba and SanDisk shall have the right to elect during or within [*] days after [*] to either:

A. receive [*] license under Section 4.2.1 after the Term to (i) the Intermolecular Background IP, and (ii) the Licensed IP, and (iii) any other Technology and/or Intellectual Property Rights Intermolecular contributes to the development efforts under the CDP in accordance with Section 1.26(iv) above. If Toshiba and/or SanDisk make an election under this subsection (a), then the license in Section 4.2.1 shall convert to [*] license at the end of the Term;

B. terminate the license to the Licensed IP, provided that if such election is made, (a) SanDisk shall

continue to have a license to the Original CDP Developed Technology under all the terms and conditions (including without limitation the economic terms) of the Collaborative Development and License Agreement by and between Intermolecular, Inc. and SanDisk Corporation effective as of August 25, 2006 as amended (the "2006 Agreement"), and (b) Toshiba and SanDisk shall continue to have the right to license Joint IP to Third Party Licensees;

C. retain [*] license under Section 4.2.1 in the CDP Field after the Term to (i) Intermolecular Background IP, and (ii) the Licensed IP and (iii) any other Technology and/or Intellectual Property Rights Intermolecular contributes to the development efforts under the CDP in accordance with Section 1.26(iv) above, in which case Intermolecular shall not exercise any ownership rights in any Joint IP in the CDP Field (including not granting licenses to any third parties under such Joint IP). In the event only Toshiba or SanDisk but not both, make an election under this subsection (c), the party electing to retain the [*] license shall ensure that Intermolecular is properly compensated under Intermolecular' s rights as [*] licensor under this Agreement, to the same extent as if both Toshiba and SanDisk had elected to retain the [*] license and the party not electing to retain the exclusive license will retain [*] license; or

D. retain [*] license under Section 4.2.1 only to (i) the Intermolecular Background IP (other than the [*]) and (ii) the [*] and (iii) any other Technology and/or Intellectual Property Rights Intermolecular contributes to the development efforts under the CDP in accordance with Section 1.26(iv) above, and to have Intermolecular not exercise its ownership rights in Joint IP (including not granting licenses to any third parties under such Joint IP), but not take [*] license under or to [*]. In the event Toshiba and SanDisk make an election under this subsection (D), then upon such election, Toshiba and SanDisk will retain [*] license to all Intellectual Property Rights licensed under Section 4.2.1 for which Toshiba and SanDisk did not elect to retain [*] license.

4.2.3 Option. Notwithstanding anything to the contrary in this Agreement, after Toshiba and/or SanDisk has elected a license pursuant to Section 4.2.2 and has identified whether such license is [*] or [*], Toshiba and SanDisk shall each have the one time option at any point after the Term, to [*] such license as applicable, from [*] to [*], or from [*] to [*], as long as (1) Toshiba and/or SanDisk continues to make any payments due and payable to Intermolecular under this Agreement, (2) the applicable [*] and [*] under Section 5.4 below associated with the license so elected by Toshiba and/or SanDisk, shall replace the [*] and [*] previously applicable prior to such election (for example, if SanDisk and/or Toshiba elected to [*] to [*], the [*] for [*] SanDisk and Toshiba shall be [*] from [*], as applicable, to [*] and no further [*] will apply); provided, that if SanDisk or Toshiba elect to [*] the [*] from [*] to [*],

CDP Product Fees and Non-CDP Product Fees already due or paid to Intermolecular prior to the election to convert to [*] are non-refundable, even if such CDP Product Fees or Non-CDP Product Fees exceed the [*] or [*], as applicable; and (3) if an election is made by Toshiba and/or SanDisk from [*] to [*], the resulting [*] license shall be made subject to any licenses made by Intermolecular to a Third Party prior to such election.

4.2.4 Third Party Licensees. Licenses to Third Party Licensees shall be governed in accordance with Section 5.10 below.

4.2.5 No Limitation to SanDisk/Toshiba Technology. Nothing in this Section 4 shall limit in any manner the rights of Toshiba or SanDisk to use, transfer and otherwise exploit [*] patents and patent applications, [*],[*] Design IP, Non [*] Foreground IP and any other Intellectual Property Rights and Technology of either Toshiba or SanDisk, as applicable; provided, however, that this Section 4.2.5 shall not be deemed a license, either express or implied, to any Intermolecular Technology or Intellectual Property Rights.

4.2.6 [*] License. If Toshiba and SanDisk either (i) do not elect [*] license under Section 4.2.2 or (ii) elect to terminate the license in accordance with Section 4.2.2(B), Toshiba and SanDisk each acknowledge that Intermolecular may exercise its rights in any Joint IP, subject to payment of a mutually-agreed pass-through payment to Toshiba and SanDisk.

4.2.7 No Sublicense Right of [*] to [*]. [*]not granted any sublicensing rights with respect to [*] under this Agreement.

4.3 **Reservation of Rights**. Except for the rights expressly granted by each party to the other under this Agreement, all other rights are reserved.

4.4 **Other Engagements**. The parties each agree that nothing in this Agreement, except for the exclusivity provisions of this Section 4, restrict any party from engaging in development or commercialization projects with Third Parties.

4.5 **Favorable per-CDP Product Terms**. If [*] grants a license to the Licensed IP to any Third Party for use in competing [*] applications and/or products with any program fees (including but not limited to fees associated with the CDP), product fees and/or per-chip royalties or their equivalent and/or other licensing fees and/or [*] on terms that are more favorable to the licensee than the terms contained in this Agreement, [*] shall immediately provide written notice to [*] setting forth the details of such more favorable terms, and shall offer to [*] to incorporate those terms in this Agreement on a going-forward basis into this Agreement effective as of such notification date. [*].

4.6 **Bankruptcy**. Intermolecular acknowledges that the Intermolecular Intellectual Property Rights licensed pursuant to this Agreement constitute "intellectual property" to the extent provided under the United States Bankruptcy Code (the "**Bankruptcy Code**") or similar foreign laws, and it is the express intent of the parties to this Agreement that if Intermolecular is subject to a proceeding under the Bankruptcy Code or similar foreign laws and rejects this Agreement or any portion thereof, then SanDisk and Toshiba may elect to retain their

respective rights to such Intermolecular Intellectual Property Rights under this Agreement to the maximum extent provided under Section 365(n) and other provisions of the Bankruptcy Code, other

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applicable U.S. and state laws and applicable foreign laws. If Toshiba and/or SanDisk seek to register the licenses to be granted by Intermolecular under this Agreement with the Japan Patent Office, any foreign patent offices, governing agencies or authorities, Intermolecular shall cooperate with the party requesting such registration. Such cooperation expenses shall be borne (a) by Intermolecular for any such U.S. or Japanese registration, and (b) by Toshiba and/or SanDisk for any other such registrations.

5. SUBSCRIPTION, SERVICE, LICENSE AND PRODUCT FEES

5.1 **Service Fees**. Toshiba and SanDisk each will fund for the CDP under the Development Plan and agrees to pay Intermolecular Five Million US Dollars (US$5,000,000.00) for a cumulative total of Ten Million US Dollars (US$10,000,000.00) for Intermolecular' s performance of the services described in the Development Plan. Subject to Section 5.7, these amounts shall be paid by each of Toshiba and SanDisk in equal monthly payments of [*] US Dollars (US$[*]) over the Initial Term starting upon the Effective Date. Intermolecular shall ensure that these service fees fully cover and support the Development Plan to build an infrastructure and workflow as set forth in Exhibit E. These service fees also include any expenses that Intermolecular incurs for a transfer of the process or technology to the development and production facilities of Toshiba and SanDisk (including associated travel and lodging costs except for extended stays in Japan over [*] days). In addition to the amounts set forth above, Toshiba and SanDisk agree to provide or pay, each on an equal basis with the other, for all of the following that is pre-approved by SanDisk and Toshiba in writing: out-of-pocket expenses for consumables (e.g., wafers and mask sets), outsourced metrology (to the extent not part of the regular work flow), analytical services and characterization not supported internally by Intermolecular, and other mutually agreed out-of-pocket costs to support the CDP. For costs associated with targets and materials required during the duration of the CDP, Intermolecular shall make commercially reasonable efforts to procure and/or obtain such targets and/or materials at costs which are as inexpensive as possible and shall bear [*] as part of the service fees under this Section 5.1, the first US$[*] per [*] (the first [*] being pro-rated), of such costs when verified. Upon such verification, SanDisk and Toshiba shall bear in equal amounts, such costs arising during the [*] in question in excess of such US$[*] threshold.

5.2 **Workflow Infrastructure Subscription Fee**. Toshiba and SanDisk will fund for the CDP under the Development Plan and each agrees to pay Intermolecular Four Million US Dollars (US$4,000,000.00) for a cumulative total of Eight Million US Dollars (US$8,000,000.00) for all access necessary for performing under the Development Plan to and Intermolecular' s use of the Workflow Infrastructure as part of the Collaborative Development Program as set forth below. Subject to Section 5.7, these amounts shall be paid by each of Toshiba and SanDisk in equal [*] payments of [*] US Dollars (US$[*]) over the Initial Term starting upon the Effective Date. These subscription fees also include all costs associated with or related to Workflow Infrastructure, including but not limited to any rent, storage, utility and like costs relating to the Workflow Infrastructure that Intermolecular incurs. Notwithstanding anything to the contrary in this Agreement in the event that the CDP is renewed after the Initial Term and/or Toshiba and SanDisk maintain [*] license to Licensed IP under Section 4.2.1, SanDisk and Toshiba will have [*] for use of the [*] after the Initial Term if Toshiba and SanDisk have extended the CDP, or entered into a new collaborative development program with Intermolecular. During the Term and subject to the full, timely payment of the above subscription fee by both Toshiba and

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SanDisk, Intermolecular will provide (i) access at all times to the Workflow Infrastructure to perform the activities contemplated by the Development Plan, (ii) [*], non-transferable license without right of sublicense for Toshiba and SanDisk to use at all times the HPC Technology and HPC Derivatives as incorporated in the Workflow Infrastructure in Intermolecular' s to carry out any of their activities pursuant to the Development Plan, and (iii) [*], non-transferable license, without right of sublicense, to access and use the Informatics Software via an Intermolecular-established secure portal solely for the purposes of performing activities pursuant to the Development Plan. Intermolecular covenants that Intermolecular will not use the [*] dedicated specifically to the CDP for any purpose outside of the Development Plan and it will not allow any Third Party to use the dedicated [*] during the term of this Agreement without Toshiba and SanDisk' s prior written consent. If Toshiba and SanDisk provide such consent for use during the Initial Term, the fees set forth in this Section 5.2 shall be reduced on a pro rata basis according to the number of days (or part thereof) that such Third Party uses the [*]. This license does not confer any ownership rights in the Workflow Infrastructure and Tempus AP-30.

5.3 **Initial License Fees**. In addition to any other license fees payable by Toshiba and SanDisk under Section 5.4 of this Agreement, Toshiba and SanDisk each agree to pay Intermolecular One Million US Dollars (US$1,000,000.00) for a cumulative total of Two Million US Dollars (US$2,000,000.00) for the Intermolecular Background IP license rights set forth in Section 4.1.1 as follows: Intermolecular shall invoice each of Toshiba and SanDisk in the amount of [*] US Dollars (US$[*]) on (a) [*] days following the [*], and (b) [*] days following the [*] anniversary of the [*]. Toshiba and SanDisk each will pay Intermolecular based on such invoices, within [*] days from their respective receipt of such invoices.

5.4 **CDP Product Fees;** [*].

5.4.1 Toshiba and SanDisk each acknowledges and agrees that in addition to Section 5.3 above,

A. Toshiba will pay Intermolecular a per-CDP Product fee (a "**CDP Product Fee**") based on Table 1 below on the sale of CDP Products by Toshiba or Toshiba Affiliates to third parties unrelated to either Toshiba, SanDisk or the joint ventures between Toshiba and SanDisk ("Unrelated Third Party") except for any payment by an Unrelated Third Party to Intermolecular under another applicable provision of this Agreement, and

B. SanDisk will pay Intermolecular a CDP Product Fee based on Table 1 below on the sale of CDP Products by SanDisk or SanDisk Affiliates to Unrelated Third Parties, except for any payment by an Unrelated Third Party to Intermolecular under another applicable provision of this Agreement.

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CDP Product Fee Rate Table (Table 1)

[*] Toshiba or SanDisk CDP Products Sold	**CDP Product containing [*]**	**CDP Product containing [*]**	**CDP Product containing [*]**
[*]	US $ [*]	$ [*]	$ [*]
[*]	$ [*]	$ [*]	$ [*]
[*]	$ [*]	$ [*]	$ [*]

C. Toshiba and SanDisk acknowledge that if a CDP Product incorporates different categories of Technology or Intellectual Property Rights that are subject to different [*], then in each such instance the highest [*] applicable to such CDP Product shall apply as the sole [*], as applicable. For the avoidance of doubt, the [*] totals in the first column in Table 1 above represent the [*] total of CDP Products sold by Toshiba or SanDisk respectively. Toshiba and SanDisk further acknowledge that if a Non-CDP Product incorporates different categories of Technology or Intellectual Property Rights that are subject to different [*], then in each such instance the highest [*] applicable to such Non-CDP Product shall apply as the sole [*], as applicable. For the avoidance of doubt, for purposes of calculating the amounts due for Non-CDP Products, the [*] totals in the first column in Table 1 above represent the [*] total of Non-CDP Products sold by Toshiba or SanDisk respectively (however, the [*] are [*] as per Section 4.2.1(B)).

D. In the event that SanDisk and Toshiba elect [*] or [*] license under Section 4.2.2(A), 4.2.2(C) or 4.2.2(D), then each of them shall pay Intermolecular US$[*] as non-refundable prepaid CDP Product Fees, which shall be paid in [*] equal installment payments of US$[*]over a [*] period, with each such installment payment being due and payable [*] after receipt of invoice (the first invoice of which can be issued upon the [*], the second invoice of which can be issued [*] after such [*] election, and each subsequent invoice of which can be issued [*] thereafter). Each of SanDisk and Toshiba [*] due and owing by SanDisk or Toshiba to Intermolecular respectively, under any provision of Section 5.4 (including under Table 1 above). Further, such [*] shall be [*] (i) the [*] (whether SanDisk and Toshiba elect [*] or [*] under Section 4.2.2(A), 4.2.2(C) or 4.2.2(D)) described in Section 5.4.2 below, and (ii) [*] as described in Section 5.4.2 below.

5.4.2 If Toshiba and SanDisk elect [*] license under Section 4.2.2(C) or 4.2.2(D), then the CDP Product Fee, [*] and [*] structure for each of Toshiba and SanDisk are set forth in Table 2 below [*]. If the [*] is [*] according to Section 2.1, then the [*] referenced below would reset to the [*] of the [*].

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

[*] (Table 2A)	**[*]**	**[*]**	**[*]**	**[*]**
[*]CDP Product Fee [*]	**US$[*]**	**US$ [*]**	**US$ [*]**	**US$ [*]**
[*]				
	[*]	[*]	[*]	[*]
[*]	US$ [*]	US$ [*]	US$ [*]	US$ [*]

Provided, that:

A. Toshiba and SanDisk each have a [*] of (i) [*] US Dollars (US$[*]) if Toshiba and SanDisk make an election under Section 4.2.2(C) above; or (ii) [*] US Dollars (US$[*]) if Toshiba and SanDisk make an election under Section 4.2.2(D).

B. SanDisk' s and/or Toshiba' s [*] and [*] displayed in Table 2A and Table 2B above, and the applicable [*] shall be [*] such amounts for that party if Toshiba or SanDisk [*] CDP Products [*] (all additional [*] constituting [*] and [*] shall be referred to as the "[*]"); provided, that such [*] shall be triggered solely and exclusively by the [*] by SanDisk and/or Toshiba as the case may be.

C. Payments for the sale of CDP Products by Affiliates are included in, and not in addition to, the [*] and amounts described in this Section 5.4.2.

5.4.3 If Toshiba and SanDisk elect [*] license pursuant to Section 4.2.2(A) above, then the CDP Product Fee set forth in this Section 5.4 will be the rate set forth in Table 1 above. For [*] license, each of Toshiba and SanDisk shall have a separate [*] of [*] US Dollars (US$[*]). The [*] shall be [*] for each of Toshiba and SanDisk (i.e., US$[*]) if Toshiba and/or SanDisk, respectively, [*]; provided, that any resulting [*] shall be triggered solely and exclusively by the [*] of [*] Technology by SanDisk and/or Toshiba as the case may be. Payments for the sale of CDP Products of Affiliates are included in, and are not in addition to, the [*]and amounts described in this Section 5.4.3.

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5.4.4 [*] and [*] arising from SanDisk' s and/or Toshiba' s exercise of the license outside the CDP Field under Section 4.2.1(B) shall be [*] of the [*] and [*] set forth above.

5.4.5 Payments for CDP Product Fee obligations under this Section 5.4 shall be made as follows. Within [*] days after [*], SanDisk and Toshiba each shall notify Intermolecular in writing of CDP Product Fee amounts due and payable under this Section 5.4 (taking into account the credit described in subsection 5.4.1(d) above). Following receipt of such written notification, Intermolecular shall provide SanDisk and Toshiba each with a written invoice matching and identifying such written notification. SanDisk and Toshiba shall pay Intermolecular the amount stated in such invoice within [*] days from the date of invoice receipt.

5.4.6 Nothing in this Agreement, including the payment or nonpayment of royalties and/or fees by Toshiba or SanDisk, shall affect any obligations by or on behalf of Toshiba or SanDisk under their respective existing agreements with third parties and each other.

5.5 **IP Buy-Out**. If Toshiba and SanDisk make the election to obtain [*] set forth in Section 4.2, then they will have the option (either jointly, or by mutual written agreement, one of them) to pay Intermolecular [*] US Dollars (US$[*]) for the assignment of [*]owned by [*] in the [*] (an "**IP Buy Out**"). This option may be exercised [*] during the period SanDisk and/or Toshiba [*]. If Toshiba and SanDisk elect the IP Buy-Out, the parties acknowledge and agree that Toshiba and SanDisk shall not [*] under [*], including the [*] of [*] (including [*]), regardless of the change in ownership of [*]. Further, if this election is made, then the option to SanDisk and Toshiba to [*] from [*] to [*] shall [*].

5.6 **Third Party Royalties**. Each party shall be responsible for all of its own costs of commercializing CDP Products and Non-CDP Products or sub-licensing Intellectual Property Rights, including any payments to Third Parties for work done by such Third Parties or for licenses necessary for the manufacture, sale, or use of CDP Products or Non-CDP Products by a party or its Affiliates or sub-licensees.

5.7 **Payments**. For the payments under Sections 5.1 and 5.2, at the conclusion of each calendar month, the Project Managers for SanDisk and Toshiba shall have up to [*] business days or otherwise mutually agreed upon period of time to review whether Intermolecular performed the work assigned by the Operating Committee in accordance with the Development Plan for such month . Upon confirmation by SanDisk and Toshiba that such work has been performed (or upon the conclusion of the above-mentioned [*] business day period if neither Project Manager has issued a written notice of non-compliance), Intermolecular will invoice SanDisk and Toshiba. If neither Project Manager

has issued a written notice of non-compliance by the conclusion of such [*] business day period, the applicable work shall be deemed performed for purposes of this Section 5.7. Disputes, if any, shall be referred to the dispute resolution process. SanDisk and Toshiba shall pay Intermolecular the amount stated in such invoice within [*] days from the date of invoice receipt. All payments hereunder shall be made in U.S. dollars by Toshiba, SanDisk, or one of their U.S. or Japanese Affiliates and are non-refundable. All payments due to Intermolecular under this Agreement shall be made by bank wire transfer as follows:

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Japan International Wire Transfer

To: [*]

Routing & Transit #: [*]
Swift Code: [*]
For credit of: Intermolecular, Inc.
Credit account #: [*]
By order of: [Name of Sender]

U.S. Domestic Wire Transfer

To: [*]

Routing & Transit #: [*]
For credit of: Intermolecular, Inc.
Credit account #: [*]
By order of: [Name of Sender]

or another U.S. bank account designated by Intermolecular in writing and provided to Toshiba and SanDisk.

5.8 **Taxes**. The fees and license rates specified in this Agreement are exclusive of any sales, use, excise, value-added or similar taxes, and of any export and import duties, which may be levied upon or collectible by Intermolecular as a result of Intermolecular' s performance of its service activities or the grant of licenses under this Agreement. Toshiba and SanDisk agree to pay and otherwise be fully responsible for any such taxes and duties. In the case of Toshiba, Intermolecular shall provide Toshiba with necessary documents duly signed by Intermolecular or issued by U.S. tax authorities, and otherwise fully cooperate with Toshiba in applying for exemption of withholding income tax under the tax convention between the U.S. and Japan. Should application for an exemption of withholding income tax be rejected by Japanese tax authorities in case of Toshiba, or should an applicable similar situation occur in the case of SanDisk, Toshiba and SanDisk shall withhold from amounts otherwise payable to Intermolecular, and pay on Intermolecular' s behalf, withholding taxes that may be required by applicable law to be withheld by Toshiba and SanDisk. Toshiba and SanDisk, as applicable, shall provide Intermolecular with tax receipts to establish that all such taxes have been paid and are otherwise available to Intermolecular for credit for U.S. income tax purposes or as otherwise available to Intermolecular.

5.9 **Records; Inspection**. Toshiba and SanDisk shall keep complete, true and accurate books of account and records on its own behalf and on behalf of the Toshiba and SanDisk Affiliates for the purpose of determining the CDP Product Fee amounts, Non-CDP Product Fee amounts, and any amounts payable by Toshiba or SanDisk as applicable pursuant to Section 5.10, under this Agreement. Such books and records shall be kept at Toshiba and SanDisk for at least [*] years following the end of the calendar quarter to which they pertain. Such records will be open for inspection during such [*] year period by an independent auditor who is reasonably acceptable to the parties and agrees to be bound to confidentiality protections of similar scope to those set out in Section 8 hereof, solely for the purpose of verifying statements related to amounts payable hereunder. Such auditor shall be instructed to report only as to whether there is a discrepancy, and if so, the amount of such discrepancy. With reasonable prior notice in writing, such inspections may be made no more than once each calendar year

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

during regular business hours (other than during quarter-end or year-end financial closing periods), to the extent not unreasonably hindering any operations of Toshiba and SanDisk. Inspections conducted under this Section shall be at the expense of Intermolecular, unless a variation or error producing an increase exceeding [*] percent ([*]%) of the royalties payable for any period covered by the inspection is established and confirmed in the course of any such inspection, whereupon all reasonable and documented costs relating to the inspection for such period and any unpaid amounts that are discovered will be paid promptly by Toshiba and/or SanDisk, as applicable. Further, if the foregoing inspection indicates a need for a follow-up inspection, Intermolecular will have the right thereafter to conduct additional inspections from time to time within one year (in such case, the scope of the inspection shall be limited to those issues which Intermolecular needs to confirm the implementation of any corrective action therefor). Each party agrees to hold in confidence pursuant to Section 8 all information concerning payments and associated reports, and all information learned in the course of any audit or inspection, except to the extent necessary for that party to reveal such information in order to enforce its rights under this Agreement or if disclosure is required by law.

5.10 **Third Party Licensees**.

5.10.1 Licenses of [*] and [*] to Third Parties.

A. Subject to Intermolecular' s compliance with the obligations in this Section 5.10.1, Intermolecular shall be [*] authorized party to grant licenses to [*] and [*] to Third Party Licensees. SanDisk and Toshiba shall have [*] to the [*] to [*].

B. In the event SanDisk and/or Toshiba [*] each of SanDisk or Toshiba will have the right but not the obligation to request Intermolecular to license [*] and/or [*] to Third Parties. Each of SanDisk or Toshiba when so requesting Intermolecular is hereby referred to as the "Designating Party", each Third Party requested to be so licensed by the Designating Party shall be referred to as a "Designated Third Party".

i. Following receipt of a written request from a Designating Party, Intermolecular shall promptly enter into a written license agreement with each Designated Third Party in form and substance approved in writing by the Designating Party consistent with the relevant provisions of this Agreement, provided such request is [*] (or with [*] to Intermolecular than) Table 1 above and in accordance with the provisions of Section 5.10 (each, a "Third Party Agreement"). In the event that Intermolecular is unable for any reason to enter into and have fully executed such Third Party Agreement within [*] days of the initial request from a Designating Party, Intermolecular would allow the Designating Party to participate in an active role in the negotiations in order to ensure that such negotiations are concluded in a Third Party Agreement consistent with the relevant provisions of this Agreement. Intermolecular agrees that Intermolecular shall enter into such Third Party Agreement if the terms are [*] the applicable terms of this Agreement (subject to modifications as required under applicable laws and regulations of the relevant jurisdiction(s)). The following provisions of this Agreement are not applicable to be included in Third Party Agreements: Sections [*] (other than Sections [*] and [*]),[*] (other than the [*] under Section [*]),[*] (other than [*] Sections [*] and the applicable provisions of Section [*] (other than the applicable provisions of Sections [*]. In addition, for each Third Party Agreement entered into, the language governing [*] under Section [*] (including but not limited to the [*] expressly set forth in Section [*]) shall apply, except that subject to such [*] shall be [*] U.S. dollars (US$[*]).

ii. Intermolecular shall have the right but not the obligation upon request by a Designating Party, to enter into a written license agreement with a Designated Third Party in the event the [*] are [*] Intermolecular [*] than Table 1 above.

C. In the event SanDisk and Toshiba [*] then Intermolecular shall not enter into any Third Party Agreement absent a Designating Party' s [*]. For the avoidance of doubt, a designation made under subsection B above shall not be deemed a waiver of the [*] election.

D. In the event SanDisk and Toshiba [*] each of the provisions of subsection B above shall apply. In addition, Intermolecular has the right but not the obligation to license the [*] and/or the [*] to Third Parties other than Designated Third Parties (each such party, a "Non-Designated Third Party") subject to Section [*] above.

5.10.2 Licenses which include [*].

A. If SanDisk and/or Toshiba [*] and SanDisk or Toshiba enter into a [*] license with a Third Party Licensee: (i) which includes [*], (ii) the scope of which primarily covers [*] (or other identified scope(s) specified in the [*] license, if any, taken outside the CDP Field under Section 4.2.1(B)); and (iii) where SanDisk and/or Toshiba as applicable actually receives a payment from such Third Party Licensee in partial consideration of any licenses thereunder, then SanDisk or Toshiba as applicable has the right, but not the duty or obligation, to license the patents from [*] to such Third Party Licensee, subject to payment of the [*] or [*], as applicable to Intermolecular by either (x) Toshiba or SanDisk, or (y) the Third Party Licensee directly under written agreement with Intermolecular (which establishes contractual privity between Intermolecular and such Third Party Licensee).

B. Notwithstanding anything to the contrary in this Agreement, (I) no license grant by either SanDisk and/or Toshiba entered into prior to the Effective Date shall give rise to any financial obligations on SanDisk and/or Toshiba to Intermolecular under this Agreement, and (II) if Toshiba and/or SanDisk desires to grant subsequent to the Effective Date a license with a Third Party wherein a substantial number of the patents and patent applications licensed are in a related field and are not [*], then such license shall not give rise to any financial obligation on SanDisk and/or Toshiba to Intermolecular under this Agreement.

C. If SanDisk and/or Toshiba [*] and if any [*] is licensed [*] or [*] to a Third Party Licensee that has already been validly licensed as a Designated Party or Non-Designated Party under Section 5.10.1 (either prior to or subsequent to the licensing of such [*]), then the additional license of such [*] to such Designated Party or Non-Designated Party shall [*] on SanDisk and/or Toshiba to Intermolecular.

D. If SanDisk or Toshiba [*] or a [*] any party may license [*] in which it [*] without consent of or [*] to other [*] and without incurring any obligations to any other party to this Agreement.

5.10.3 Payments.

A. For purposes of Section 5.10.1, Intermolecular shall pay to the Designating Party, all revenues received from Designated Third Parties under all Third Party Agreements ("Third Party 5.10.1 Revenue"), that [*] the [*] set forth above in Table 1 (the "[*]"), subject to the provisions for [*] set forth in Section 5.10.4. Revenue arising from a Third Party License outside the CDP Field shall be [*] of the fees set forth above in Table 1, subject to the provisions for [*] set forth in Section 5.10.4. SanDisk and Toshiba shall have no obligation to make any [*] or [*] to Intermolecular under Section 5.10.1.

B. For purposes of Section 5.10.2, "[*]" means [*] of the amount set forth in Table 1 applicable to CDP Product Fees, and "[*]" means [*] of a [*]. [*] and [*] are each subject to the provisions for [*] set forth in Section 5.10.4, but are not subject to the [*] set forth in Section 5.4.

C. SanDisk or Toshiba may audit [*] as well as payment records associated with Third Party Agreements using Section 5.9' s procedures above (except that the rights and obligations for Intermolecular and SanDisk/Toshiba in Section 5.9 are reversed). Any accounting disputes arising from such audits shall be escalated to senior management of the parties for resolution.

5.10.4 [*].

Notwithstanding any provisions to the contrary in this Agreement:

A. [*] in the CDP Field under Section 5.10.1 and [*] SanDisk or Toshiba (or directly by a Third Party Licensee) to Intermolecular under Section 5.10.2, shall be [*] as follows:

If aggregate revenue collected [*] by Intermolecular under Section 5.10.1 and 5.10.2 within the CDP Field exceeds:	**Then, Table 1 Fee Rates used to calculate [*] by Intermolecular under Section 5.10.1, and [*][*] SanDisk or Toshiba (or directly by a Third Party Licensee) to Intermolecular under Section 5.10.2, shall be [*] as follows:**
[*] US dollars (US$[*])	[*]
[*] US dollars (US$[*])	[*]
[*] US dollars (US$[*])	[*]

B. For each field licensed out of the CDP Field under Section 4.2.1B above, [*] under Section 5.10.1 in that field and [*] by SanDisk or Toshiba (or directly by a Third Party Licensee) to Intermolecular under Section 5.10.2 in that field shall be [*] as follows:

If aggregate revenue collected [*] by Intermolecular under Section 5.10.1 and 5.10.2 in each field outside the CDP Field exceeds:	**Then, Table 1 Fee Rates used to calculate [*] by Intermolecular in that field under Section 5.10.1, and [*] SanDisk or Toshiba (or directly by a Third Party Licensee) to Intermolecular in**

	that field under Section 5.10.2, shall be [*] as follows:
[*] US dollars (US$[*])	[*]
[*] US dollars (US$[*])	[*]
[*] US dollars (US$[*])	[*]

C. Intermolecular has an affirmative duty to inform SanDisk and Toshiba in writing when each of the thresholds under this Section 5.10.3 has been reached. Such [*] shall be [*] based on the [*] (including other [*] or [*] where applicable under this Agreement).

5.10.5 Acknowledgement. In no event shall SanDisk or Toshiba be required to [*] to any third party under this Agreement.

5.10.6 Payment Terms. Intermolecular shall make payments to a Designating Party under Section 5.10.1, and SanDisk or Toshiba [*] shall make payments to Intermolecular under Section 5.10.2 as follows: Within [*] days after each [*] close, the remitting party shall notify the receiving party in writing of their respective obligations to make payments if any, accompanied by a reporting record adequately supporting such obligation, to the other under this Section 5.10 (taking into account, when SanDisk or Toshiba is the paying party, the credit described in subsection 5.4.1(D) above). Following receipt of such written notification, the receiving party shall provide the remitting party as the case may be, with a

written invoice matching and identifying such written notification. The remitting party shall pay the receiving party the amount stated in such invoice within [*] days after receipt of such invoice.

6. COVENANTS

6.1 **Covenant Regarding** [*] **Obtained by Intermolecular**. Subject to the terms and conditions of this Agreement, Intermolecular covenants [*] against SanDisk, Toshiba and their respective subsidiaries, customers and distributors (collectively "Protected Entities") any [*] if such [*] is based on [*] obtained by Intermolecular, or [*] to which Intermolecular was exposed, directly or indirectly, from Toshiba and/or SanDisk during the duration of or as a result of the CDP. In addition, and subject to any pre-existing contractual obligations of Intermolecular (and Intermolecular hereby warrants that there are no such pre-existing contractual obligations of Intermolecular related to the CDP Field), and, except as otherwise required by law or by court or government order, Intermolecular covenants not to [*] any Third Party to [*] any [*] against the Protected Entities to the extent that such [*] is based on [*] obtained by Intermolecular or [*] to which Intermolecular was exposed, directly or indirectly, from Toshiba and/or SanDisk during the duration of or as a result of the CDP. Except as otherwise required by law or by court or by government order, should Intermolecular [*] or [*] third parties in their [*], against the Protected Entities, Intermolecular shall prove that such [*] is not based on and is independent of [*] obtained by Intermolecular or [*] to which Intermolecular was exposed, directly or indirectly, from Toshiba and/or SanDisk during the duration of or as a result of the CDP. Notwithstanding the foregoing, Toshiba and SanDisk each acknowledge and agree that the covenant set forth in this Section 6.1 does not apply to [*], any [*] to [*], or to any material breach of the license grant or confidentiality provisions of this Agreement.

6.2 [*] **Covenant**.

6.2.1 For the period of time ending [*] from the date of [*] including regarding the [*] and/or [*] of the [*] (hereinafter "[*]"), and subject to the terms and conditions of this Agreement, [*] by [*] (or [*] before or during the [*]) shall be subject to the

limitations set forth hereinafter. Subject to the terms and conditions of this Agreement, Intermolecular covenants [*] not to [*] against Protected Entities any of [*]by [*] before or during the [*] (or [*] by [*] before or during the [*]), but excluding [*] (and [*] where covenants [*]) that are covered under the below-defined "[*]," regarding [*]; provided, however, that if there is any specific field regarding the [*] that needs to be excluded from the covenant [*] hereunder due to potential breach by Intermolecular of its contracts with any third party existing as of the Effective Date of the Agreement, Intermolecular shall schedule such in Exhibit F hereto and such field will be excluded from the covenant [*] hereunder. Further, Intermolecular [*] not to [*] any [*] to [*] any [*] (or [*] by [*]), regarding the [*].

6.2.2 For the avoidance of doubt, and subject to the [*] set forth in Section [*] of the Agreement, nothing in this Section 6.2 prohibits Intermolecular from [*] in the future under [*] to any Third Party after the Effective Date of the Agreement (collectively with [*] which are [*] as of the Effective Date and the [*] that Intermolecular may transfer ownership of in accordance with this Section 6.2.2, "[*]"), or prohibits Intermolecular in the future from [*] to [*] of any [*] relating to or resulting from a [*] in the normal course of

business for Intermolecular to the extent where Intermolecular [*] such [*] the opportunity to acquire [*] that Intermolecular [*] to such [*] as part of the [*]. If Intermolecular [*] such [*] or [*] in such [*], then Toshiba and SanDisk [*] that the covenants [*] under this Section 6.2 shall not apply to such [*] for the [*] and [*] Toshiba or SanDisk will receive a [*] to such [*]; provided that Intermolecular warrants that it will not [*] such Third Party in [*] under the [*] against the Protected Entities. Notwithstanding the immediately preceding sentences, Intermolecular may be [*] in any [*] as required by being an [*] to a [*] involving the [*] for [*] purposes, solely as required by law and further Intermolecular may be [*], as required by law, provided that Intermolecular makes commercially reasonable efforts to limit the amount of [*] and/or [*] requested. Notwithstanding the foregoing, Toshiba and SanDisk [*] and [*]: (a) that any covenants granted by Intermolecular regarding the [*] or [*] of Toshiba and/or SanDisk pursuant to this Section 6.2 apply only to [*] by Toshiba and/or SanDisk and [*] or [*]of by Toshiba, SanDisk or [*]; and (b) that the covenants do not apply to [*], any [*] to [*], or to any [*] or confidentiality [*] of this Agreement. Toshiba and SanDisk [*] that the foregoing covenant shall not apply to any [*] resulting from the [*] or [*] of Toshiba, SanDisk, or any Protected Entity. Notwithstanding anything above, if Toshiba and SanDisk [*] then the [*] shall solely in such case mean the period of time terminating [*] from the date of such election. Further, if Toshiba and SanDisk [*] or [*] as [*] as provided in Section [*], this covenant [*] shall not apply to [*] listed in Section [*] nor to such [*] not included in [*] as provided in Section [*], as applicable.

6.3 **Enforcement**. If Intermolecular [*] any claim against the Protected Entities in violation of Sections 6.1 or 6.2 above, then Toshiba and SanDisk may seek injunctive relief to stop or enjoin Intermolecular from undertaking such activities in addition to any and all remedies available at law and the Protected Entities shall be fully reimbursed by Intermolecular for their reasonable expenses and direct damages arising from such assertion. Toshiba and/or SanDisk may [*] such expenses and damages [*] to be paid to Intermolecular.

6.4 **Assignment**. Subject to the terms and conditions of this Agreement, the covenant in Section 6.1 shall be binding on any successors-in-interest, assigns, mergers, reorganizations, or any other change of control of Intermolecular, but only as to [*] obtained by Intermolecular or [*] to which Intermolecular was exposed, directly or indirectly, from Toshiba and/or SanDisk during the duration of or as a result of the CDP. In addition, subject to the terms and conditions of this Agreement, the covenant in Section [*] shall be binding on any successors-in-interest, assigns, mergers, reorganizations, or any other change of control of Intermolecular, but only as applicable to the [*] owned by Intermolecular on the day immediately prior to such change of control and not to any other [*] owned by the successor in interest or assignee.

6.5 **Patent Sales**. Subject to the terms and conditions of this Agreement, if Intermolecular [*] or otherwise [*] or [*] any [*] or [*] under any of the [*] covered by the covenant [*] in Section [*] above ("[*]" or "[*]" as the case may be), unless such rights are specifically excluded therein, at any time during the period of time that such [*] would have been subject to the covenant set forth in

Section [*] above but for such [*], to any Third Party [*] of Intermolecular, then Intermolecular: (i) retroactively [*], as of immediately prior to such [*], a [*] with respect to any [*] of by Toshiba and/or SanDisk prior to such [*]; and (ii) shall make such [*] subject to the covenant set forth in Section [*] above.

6.6 **Application to Affiliates**. For purposes of this Section 6, Intermolecular shall mean Intermolecular and/or its Affiliates as appropriate. Toshiba shall mean Toshiba Corporation and/or its Affiliates as appropriate. SanDisk shall mean SanDisk Corporation and/or its Affiliates as appropriate.

6.7 **Termination of Covenants**. If, at any time before Intermolecular' s assertion of claims of [*] subject to covenants set forth in this Section 6 against a particular Protected Entity, such particular Protected Entity asserts claims of [*] against Intermolecular, or seek to [*] of Intermolecular other than enforcement of or disagreement concerning the [*] provisions set forth in this agreement [*], the covenants set forth in this Section 6 shall immediately terminate with respect to such particular Protected Entity. In addition, in the event of a change of control, merger, acquisition or sale of all or substantially all of the assets of Toshiba or SanDisk, or of the sale of an Affiliate, subsidiary or product line of Toshiba or SanDisk, the covenants granted in this Section 6 shall apply only to the products, processes, Technologies or services of Toshiba or SanDisk, as applicable, as of the date of such change of control, and shall not apply to any of the products, processes, Technologies, or services of the acquiring entity.

7. WARRANT

7.1 **Warrant**.

7.1.1 Upon execution of the Agreement, Intermolecular will issue to each of Toshiba and SanDisk a warrant (each a "**Warrant**" and together the "**Warrants**") to purchase a number of shares equal to the Warrant Amount (as defined below). Each Warrant shall have an

exercise price of $3.04144 per share (the "**Exercise Price**") and be exercisable only during the Exercise Period (as defined below). Each of Toshiba and SanDisk must deliver an election notice of its intention to exercise the Warrant and the number of shares of Intermolecular common stock it wishes to purchase pursuant to the Warrant (an "**Election Notice**") not later than the expiration of the Exercise Period. The closing of the issuance of the shares to be issued pursuant to the Warrants shall occur not more than 30 days after the expiration of the Exercise Period. At the closing Intermolecular shall at its sole expense issue all necessary and appropriate documents evidencing the issuance of the Shares. Intermolecular represents that the Exercise Price is the lowest price at which shares were purchased by investors in Intermolecular' s Series D financing round in December 2008. Intermolecular agrees to provide SanDisk and Toshiba upon request at the time of the License Election an investor information packet containing information which is no less than the information provided by Intermolecular or on Intermolecular' s behalf to investors in any investment round preceding the conclusion of the Exercise Period to purchasers of common stock and, in addition, shall also include a written summary of (i) the then-current capitalization table stating shares by

class (including shares reserved for issuance under outstanding instruments (e.g., options, other convertible securities)) and (ii) the then-total dollar amount of outstanding liquidation preferences.

7.1.2 "**Exercise Date**" shall mean the date SanDisk and/or Toshiba makes an effective election under Section 4.2.2(A), Section 4.2.2(C) or Section 4.2.2(D) (a "**License Election**").

7.1.3 The "**Exercise Period**" shall be a period from and after the Exercise Date and ending upon the date one hundred and twenty (120) days from the end of the CDP.

7.1.4 The "**Warrant Amount**" with respect to each Warrant shall be an amount equal to (1) 1,644,736 less (2) the number of shares of Common Stock elected to be purchased in the Notice of Exercise with respect to the other Warrant being issued on the date hereof; provided, however, that (a) if both Toshiba and SanDisk elect to purchase more than 822,368 shares of Common Stock, then the Warrant Amount shall be an amount equal to 822,368; and (b) if either Toshiba or San Disk elects to purchase less than 822,368 shares then the Warrant Amount, in which case such lesser amount shall be the Warrant Amount for such party and the other party shall have the right but not the obligation to purchase the balance up to an aggregate of 1,644,736 shares. In no event shall the aggregate Warrant Amount purchasable by SanDisk and Toshiba collectively hereunder exceed 1,644,736.

7.1.5 The form of warrant is attached hereto as Exhibit G.

8. CONFIDENTIALITY

8.1 **Confidentiality**. Except as otherwise expressly provided in this Agreement, the parties agree that each receiving party of another party' s Confidential Information shall not, except as expressly provided in this Section 8, disclose to any Third Party, or use for any purpose, any such Confidential Information furnished to it by a disclosing party pursuant to this Agreement, except in each case to the extent that it can be established by the receiving party by competent proof that such information:

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

(a) was already known to the receiving party, other than under an obligation of confidentiality, at the time of disclosure;

(b) was generally available to the public or otherwise part of the public domain at the time of its disclosure to the receiving party;

(c) became generally available to the public or otherwise part of the public domain after disclosure and other than through any act or omission of the receiving party in breach of this agreement;

(d) was independently developed by the receiving party without use of, or reference to, the other party' s confidential information, as demonstrated by documented evidence prepared contemporaneously with such independent development; or

(e) was disclosed to the receiving party, other than under an obligation of confidentiality, by a Third Party authorized and entitled to disclose such information to others.

8.2 **Permitted Use and Disclosures**. Notwithstanding the restrictions of Section 8.1, each party hereto may (a) use Confidential Information disclosed to it by another party to the extent necessary for that party to perform its obligations or undertake the activities set forth in the Development Plan and (b) use or disclose Confidential Information disclosed to it by such other party to the extent such use or

disclosure is reasonably necessary in (i) exercising the rights and licenses granted hereunder, (ii) prosecuting or defending litigation, (iii) complying with applicable laws, governmental regulations or court orders or submitting information to tax or other governmental authorities (including the Securities and Exchange Commission), or (iv) preparing, filing and prosecuting patent applications; in each case, provided that if a party is required to make any such disclosure, other than pursuant to a confidentiality agreement, it will give reasonable advance notice to the disclosing party of such disclosure and will use reasonable efforts to secure confidential treatment of such information (whether through protective order or otherwise), except to the extent inappropriate with respect to patent applications. It is understood that any party may also disclose the Confidential Information of a disclosing party upon receipt of the written consent to such disclosure by a duly authorized representative of the disclosing party. For purposes of this Section 8, SanDisk and Toshiba may (subject to the limitations of use applicable to employees of SanDisk, Toshiba or their Affiliates) use third party contractors retained by SanDisk, Toshiba or their Affiliates as applicable, that have entered into appropriate non-disclosure agreements with SanDisk, Toshiba or their Affiliates, as applicable, and with Intermolecular where such third party contractors have direct access to the CDP or have been provided to the Intermolecular Confidential Information. SanDisk and Toshiba shall be responsible for their respective breaches of this Section 8 by such third party contractors to the same extent as for SanDisk, Toshiba and their Affiliates respective employees.

8.3 **Nondisclosure of Terms**. Each of the parties hereto agrees not to disclose the terms of this Agreement to any Third Party without the prior written consent of the other party hereto, except to such party' s attorneys, accountants, advisors, investors and financing sources and their advisors and others on a need to know basis under circumstances that reasonably ensure the confidentiality thereof, to the extent required by law, in connection with the enforcement of

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

this Agreement or rights under this Agreement or in connection with a merger, acquisition, financing transaction or proposed merger, acquisition or financing transaction.

9. LIMITED REPRESENTATIONS AND WARRANTIES AND INDEMNIFICATION

9.1 **By Intermolecular**. Intermolecular represents and warrants that: (a) it has the right and authority to enter into this Agreement, and to fully perform its obligations hereunder; (b) this Agreement is a legal and valid obligation binding upon it and enforceable in accordance with its terms; (c) Intermolecular owns, or possesses a valid and enforceable license to use, and has full power and authority to license or sublicense, as the case may be, all Intermolecular' s Intellectual Property Rights licensed or sublicensed to Toshiba and SanDisk pursuant to this Agreement; (d) Intermolecular' s compliance with its obligations under this Agreement will not violate third party agreements nor give rise to financial obligations on the part of Toshiba, Toshiba Affiliates, SanDisk or SanDisk Affiliates under any Third Party agreements; and (e) it will perform the services contemplated by this Agreement in a professional and workmanlike manner and in accordance with relevant industry standards applicable to the services.

9.2 **By Toshiba and SanDisk**. Toshiba and SanDisk each individually represent and warrant that: (a) it has the right and authority to enter into this Agreement, and to fully perform its obligations hereunder; (b) this Agreement is a legal and valid obligation binding upon it and enforceable in accordance with its terms; and (c) each owns, or possesses a valid and enforceable license to use, and has full power and authority to license or sublicense, as the case may be, all Intellectual Property Rights which are or may be licensed to Intermolecular under this Agreement.

9.3 **Disclaimer**. Toshiba and SanDisk each acknowledge that the CDP is by its nature a technology development project and there is no guarantee that the project will be successful, in whole or in part or will meet Toshiba' s or SanDisk' s anticipated needs. Each party further acknowledges that the failure of the parties to successfully develop and commercialize [*] Technology, CDP Products or Non-CDP Products as the result of the CDP shall not constitute a breach of any representation or warranty or other obligation under this Agreement.

EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS AGREEMENT, TOSHIBA, SANDISK, AND INTERMOLECULAR MAKE NO REPRESENTATIONS AND EXTEND NO WARRANTIES OR CONDITIONS OF ANY KIND, AND EXPRESSLY DISCLAIM ALL OTHER REPRESENTATIONS, WARRANTIES AND CONDITIONS, WHETHER EXPRESS, IMPLIED, OR STATUTORY, WITH RESPECT TO BACKGROUND IP, FOREGROUND IP, HPC TECHNOLOGY OR ANY INFORMATION OR TECHNOLOGY DISCLOSED OR PROVIDED UNDER THIS AGREEMENT, INCLUDING ANY DELIVERABLES PROVIDED HEREUNDER. WITHOUT LIMITING THE FOREGOING, EACH PARTY HEREBY EXPRESSLY DISCLAIMS ANY AND ALL WARRANTIES OF TITLE, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE, OR VALIDITY OF ANY BACKGROUND IP, FOREGROUND IP, OR HPC TECHNOLOGY, PATENTED OR UNPATENTED, OR NON-INFRINGEMENT OF THE INTELLECTUAL PROPERTY RIGHTS OF THIRD PARTIES.

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

9.4 **Indemnification**. Intermolecular shall indemnify, defend and hold harmless Toshiba, Toshiba Affiliates, SanDisk and SanDisk Affiliates against any Third Party suits, actions, claims or proceedings alleging that (a) the HPC Technology, HPC Derivatives, or any Licensed IP provided or licensed by Intermolecular under this Agreement infringes or misappropriates such Third Party' s Intellectual Property Rights and/or (b) Intermolecular has caused property damage to a Toshiba or SanDisk facility, and Intermolecular agrees to reimburse Toshiba, Toshiba Affiliates, SanDisk and SanDisk Affiliates for all damages, liabilities, costs and expenses, including reasonable attorneys' fees, finally awarded against Toshiba, Toshiba Affiliates, SanDisk and SanDisk Affiliates by a court of competent jurisdiction that may result from any such Third Party claim or property damage or any settlement amount, as applicable; provided that (i) SanDisk and/or Toshiba (as applicable) notifies Intermolecular promptly in writing of the claim; and (ii) SanDisk and/or Toshiba (as applicable) assist and cooperates reasonably with Intermolecular, at Intermolecular' s expense, in defending and settling such claim. Intermolecular shall have sole control of the defense and all related potential settlement negotiations, provided that Intermolecular shall not enter into any settlement which would adversely affect Toshiba, Toshiba Affiliates, SanDisk or SanDisk Affiliates without such party' s prior written consent. In addition, each of SanDisk and Toshiba shall be entitled to be represented by its own respective counsel at its own respective expense. Intermolecular shall maintain appropriate insurance to permit Intermolecular to reasonably carry out its indemnity obligations under this Agreement.

10. LIMITATION OF LIABILITY

10.1 **Intermolecular**.

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, EXCEPT FOR INTERMOLECULAR' S OBLIGATIONS UNDER SECTIONS 6 AND 9.4 OF THIS AGREEMENT, A BREACH BY INTERMOLECULAR OF ITS CONFIDENTIALITY OBLIGATIONS UNDER SECTION 8, OR A BREACH OF ANY LICENSE RESTRICTIONS APPLICABLE TO INTERMOLECULAR: (I) UNDER NO CIRCUMSTANCES WILL INTERMOLECULAR BE LIABLE TO ANY PARTY UNDER ANY LEGAL OR EQUITABLE THEORY, INCLUDING UNDER CONTRACT, STRICT LIABILITY OR OTHERWISE, FOR ANY LOST PROFITS, LOST DATA, LOST BUSINESS OPPORTUNITY, INJURY TO BUSINESS REPUTATION OR EQUIPMENT DOWNTIME, OR FOR ANY CONSEQUENTIAL, PUNITIVE INCIDENTAL, INDIRECT OR SPECIAL DAMAGES OF ANY KIND IN CONNECTION WITH THE SUBJECT MATTER OF THIS AGREEMENT, EVEN IF SUCH PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, AND (II) IN NO EVENT WILL INTERMOLECULAR' S AGGREGATE LIABILITY TO ANY PARTY EXCEED THE GREATER OF (A) US$20 MILLION, AND (B) CUMULATIVE AMOUNTS PAID OR PAYABLE BY TOSHIBA AND SANDISK (OR BY THIRD PARTIES BASED ON LICENSES MADE PURSUANT TO THIS AGREEMENT) TO INTERMOLECULAR IN THE TWENTY-FOUR (24) MONTHS PRECEDING THE CLAIM.

10.2 **SanDisk and Toshiba**.

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, EXCEPT FOR A BREACH BY SANDISK OR TOSHIBA OF THEIR RESPECTIVE CONFIDENTIALITY OBLIGATIONS UNDER SECTION 8, OR A BREACH OF ANY LICENSE RESTRICTIONS: (I) UNDER NO CIRCUMSTANCES WILL SANDISK AND/OR TOSHIBA BE LIABLE TO ANY PARTY UNDER ANY LEGAL OR EQUITABLE THEORY, INCLUDING UNDER CONTRACT, STRICT LIABILITY OR OTHERWISE, FOR ANY LOST PROFITS, LOST DATA, LOST BUSINESS OPPORTUNITY, INJURY TO BUSINESS REPUTATION OR EQUIPMENT DOWNTIME, OR FOR ANY CONSEQUENTIAL, PUNITIVE, INCIDENTAL, INDIRECT OR SPECIAL DAMAGES OF ANY KIND IN CONNECTION WITH THE SUBJECT MATTER OF THIS AGREEMENT, EVEN IF SUCH PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, AND (II) IN NO EVENT WILL SANDISK' S OR TOSHIBA' S AGGREGATE LIABILITY TO ANY PARTY EXCEED THE AMOUNTS DUE AND PAYABLE BY SANDISK AND TOSHIBA TO INTERMOLECULAR.

10.3 **Basis of Agreement**. EACH PARTY ACKNOWLEDGES AND AGREES THAT THE FOREGOING LIMITATIONS OF LIABILITY ARE AN ESSENTIAL ELEMENT OF THE BASIS OF THE BARGAIN AMONG THE PARTIES AND THAT IN THE ABSENCE OF SUCH LIMITATIONS, THE ECONOMIC AND OTHER TERMS OF THIS AGREEMENT WOULD BE SUBSTANTIALLY DIFFERENT.

11. TERM; TERMINATION

11.1 **Term of Agreement**. The Agreement, unless terminated or canceled as provided in this Section 11, shall remain in full force and effect for the full Initial Term, and may be extended for up to two (2) additional one (1) year periods by Toshiba and SanDisk providing notice to Intermolecular of their intention to renew the Agreement providing thirty (30) days advance written notice to Intermolecular before the expiration of the Initial Term or any extension thereof. SanDisk and Toshiba shall receive at least as favorable commercial terms from Intermolecular if they elect to extend the Term beyond the Initial Term, as those commercial terms governing the Initial Term. If SanDisk and/or Toshiba request to extend the Term for less than one (1) year and/or wish to have lower rates in return for extending the Term, the parties shall discuss and work together in good faith to agree to such request (Intermolecular shall not unreasonably withhold agreement to a request to extend the duration of the Term).

11.2 **Termination for Convenience**. Either Toshiba or SanDisk may terminate this Agreement for convenience without penalties of any kind, in the event of an acquisition, merger, assignment, reorganization or other change of control of Intermolecular, by providing [*] days advance written notice to Intermolecular. "Change of control" under this Section 11.2 excludes (a) an IPO by Intermolecular, and (b) the acquisition of Intermolecular by either a financial entity, a semiconductor equipment manufacturer or a semiconductor materials manufacturer, provided that any of these entities referred to in this (b) are not affiliated with an entity that designs and/or manufactures semiconductor integrated circuits, and that any party in (b) within [*] days notifies and confirms in writing to SanDisk and Toshiba that such party shall assume all of Intermolecular' s obligations under this Agreement and SanDisk and Toshiba shall have the right to terminate this Agreement unless such party meets requirements in (b).

11.3 **Termination for Breach**. Either Toshiba or SanDisk may terminate this Agreement in the event that Intermolecular has materially breached or defaulted in the performance of any of its material obligations hereunder, and such default has continued for [*]days after written notice thereof was provided to Intermolecular by a non-breaching party; or in the event of insolvency or bankruptcy. Intermolecular may terminate this Agreement in the event that either Toshiba or SanDisk has materially breached or defaulted in the performance of its material obligations hereunder, and such default has continued for [*]days after written notice thereof was provided to the breaching party by Intermolecular. Any termination shall become effective at the end of such [*]day period unless the breaching party (or any other party on its behalf) has cured any such breach or default prior to the expiration of the [*] day period.

11.4 **Effect of Termination**.

11.4.1 Accrued Rights and Obligations. Termination of this Agreement for any reason shall not release any party hereto from any liability or obligation that, at the time of such termination, has already accrued to the other parties or that is attributable to a period prior to such termination, nor shall it preclude any party from pursuing any rights and remedies it may have hereunder or at law or in equity with respect to any breach of this Agreement.

11.4.2 Return of Confidential Information. Upon any termination of this Agreement, Toshiba, SanDisk and Intermolecular, as applicable, shall promptly destroy or return to the other all Confidential Information received from any other party other than as required to enforce or defend any continuing or surviving rights and pursuant to this Agreement obligations under this Agreement.

11.5 **Survival**. If this Agreement terminates for any reason or expires, then Sections [*] and [*] of this Agreement shall survive such termination or expiration.

12. MISCELLANEOUS

12.1 **Governing Laws and Dispute Resolution**. This Agreement shall be governed by and construed in accordance with the laws of the state of California in the United States, without regard to its choice of law rules. All disputes between the parties in connection with or arising out of this Agreement shall first be discussed in good faith between the parties in order to try to find an amicable solution. If no solution can be found to settle the dispute, then such dispute shall be finally settled by arbitration in accordance with the default rules and procedures of American Arbitration Association sitting in Hawaii and conducted in English. Within [*] days of notice that a party wants to submit a dispute to arbitration, the parties will attempt to mutually agree upon an independent arbitrator with expertise in the semiconductor industry. If the parties are unable to agree on an independent arbitrator within [*] days, AAA will select an arbitrator within [*] days. The arbitrator shall determine what discovery will be permitted consistent with the goal of limiting the costs and time for such a proceeding. The parties and arbitrator shall use all reasonable efforts to complete any arbitration subject to this Section 12.1 within [*] from the selection of the arbitrator. The parties agree that any award of damages shall not include punitive, special, consequential, or indirect damages except as specifically allowed in this Agreement and shall comply with the limitation of liability provisions set forth herein. The

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

arbitrator' s decision shall be in a detailed writing setting forth the reasons for their decision and shall be provided concurrently to each party. The arbitration award shall be final and binding on the parties. Unless otherwise agreed to by the parties, each party shall pay one-third of the arbitration fees and expenses and shall bear all of its own expenses in connection with the arbitration. Notwithstanding any of the foregoing, any party shall have the right to seek, at its own cost and expenses, preliminary and temporary injunctive relief pending resolution of the dispute via arbitration. The parties expressly disclaim the application of the United Nations Convention on the International Sale of Goods to this Agreement.

12.2 **Assignment**. No party may assign or transfer this Agreement either voluntarily or by operation of law, in whole or in part, without the prior written consent of the other parties, such consent not to be unreasonably conditioned, delayed or withheld, and any attempt to do so will be null and void. Notwithstanding the foregoing, any party may assign this Agreement without such consent to a parent, subsidiary, or Affiliate, or assign this Agreement without consent to a successor in interest to its business (whether by merger, acquisition, consolidation, change of control, reorganization or sale of substantially all of its assets), provided that if Intermolecular assigns this Agreement to a successor in interest, such successor in interest within [*] days notifies and confirms in writing to SanDisk and Toshiba that such successor in interest shall assume all of Intermolecular' s obligations under this Agreement and SanDisk and Toshiba shall have the right to defer any payment under this Agreement until SanDisk and Toshiba have confirmed, in writing, such purported assignment. The parties acknowledge and agree that if this Agreement is assigned by Toshiba or SanDisk to a successor in interest as a result of a merger, acquisition, consolidation, change of control, reorganization or sale of substantially all of their assets, then (a) the caps set forth in Section 5.4.2 shall terminate and the Fees payable shall be uncapped thereafter; and (b) the covenants set forth in Section [*] shall not apply to the successor in interest or to any products or services of such successor in interest other than the specific, then-current version of the CDP Products and Non-CDP Products in commercial production at the closing of the transaction resulting in the change of control. The parties further acknowledge and agree that if this Agreement is assigned by Intermolecular to a successor in interest as a result of a merger, acquisition, consolidation, change of control, reorganization or sale of substantially all of its assets, then the covenants set forth in Section [*]shall not apply to [*]independently owned or controlled by the successor in interest on the date immediately prior to the closing of the transaction resulting in the change of control, nor shall the covenants set forth in Section [*] apply to any [*]created or acquired by such successor in interest after the closing of the transaction resulting in the change of control unless the identity of the former Intermolecular as a functional unit remains identifiable in which case the covenants shall continue to apply but only as to [*]created by the said identifiable functional unit during the [*]. Notwithstanding the foregoing, the covenants set forth in Section [*] still apply to any [*] filed by such successor and claiming priority to any earlier [*]obtained or developed by [*]before or during the [*]. Subject to the foregoing provisions, this Agreement will be binding on and inure to the benefit of the parties and their respective successors and permitted assigns.

12.3 **Drafting**. In interpreting and applying the terms and provisions of this Agreement, the parties agree that no presumption shall exist or be implied against the party that drafted such terms and provisions.

12.4 **Waiver**. It is agreed that no waiver by any party hereto of any breach or default of any of the covenants or agreements herein set forth shall be deemed a waiver or an expectation of non-enforcement as to any subsequent and/or similar breach or default.

12.5 **Non-Solicitation**. During the Initial Term of this Agreement no party may individually, or in concert with or through any other person, actively recruit or solicit employment of any scientific or technical personnel of any other party. The foregoing restriction shall not apply to, or be breached by: (i) advertising open positions, participating in job fairs, and conducting comparable activities to recruit skilled or unskilled help from the general public, or responding to individuals contacted through such methods, (ii) responding to unsolicited inquiries about employment opportunities or possibilities from job placement agencies or other agents acting for unidentified principals, or (iii) responding to unsolicited inquiries about employment opportunities from any individual.

12.6 **Severability**. In the event that any provision of this Agreement becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Agreement shall continue in full force and effect to the fullest extent permitted by law without said provision, and the parties shall amend the Agreement to the extent feasible to lawfully include the substance of the excluded term to as fully as possible realize the intent of the parties and their commercial bargain.

12.7 **Independent Contractors**. The relationship of the parties hereto is that of independent contractors. Each party shall not be deemed to be an agent, partner, joint venture or legal representative of the other for any purpose as a result of this Agreement or the transactions contemplated thereby.

12.8 **Press Releases or Public Statements**. No Party shall issue any press release, publicity statement, communication with stockholders, public notice or other public disclosure relating directly to this Agreement or the transactions contemplated hereby without prior notice to, consultation with and the prior written consent of the other parties.

12.9 **Compliance with Law**. In exercising their rights and undertaking their obligations under the Agreement, each party shall fully comply in all material respects with the requirements of any and all applicable laws, regulations, rules and orders of any governmental body having jurisdiction over the exercise of rights under this Agreement. Without limiting the foregoing, each party agrees to comply with all applicable export and re-export control laws and regulations maintained by the United States or Japanese governments.

12.10 **Notices**. All notices, requests and other communications hereunder shall be in writing and shall be hand delivered, or sent by express delivery service with confirmation of receipt, or sent by registered or certified mail, return receipt requested, postage prepaid, or by electronic transmission (with written confirmation copy by registered first-class mail), in each case to the attention of the chief legal officer at the respective address indicated above. Any such notice shall be deemed to have been given when received. Any party may change its address by giving the other party written notice, delivered in accordance with this Section.

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

12.11 **Force Majeure**. No party shall lose any rights hereunder or be liable to any other party for damages or losses (except for payment obligations then owing) on account of failure of performance by the defaulting party if the failure is occasioned by war, strike, fire, earthquake, flood, lockout, embargo, act of terrorism, governmental acts, or any other reason where failure to perform is beyond the reasonable control and not caused by the negligence, intentional conduct or misconduct of the non-performing party and such party has exerted all reasonable efforts to avoid or remedy such force majeure; provided, however, that in no event shall a party be required to settle any labor dispute or disturbance.

12.12 **Headings; Construction**. The captions to the several Sections hereof are not part of this Agreement, but are included merely for convenience of reference and shall not affect its meaning or interpretation. As used in this Agreement, the word "including" means "including without limitation."

12.13 **Counterparts**. This Agreement may be executed in counterparts, each of which shall be deemed to be an original and all of which together shall be deemed to be one and the same agreement.

12.14 **Complete Agreement**. This Agreement, together with its Exhibits and their attachments, constitutes the entire agreement, both written and oral, among the parties with respect to the subject matter hereof, and all prior agreements respecting the subject matter hereof, either written or oral, express or implied, shall be superseded by this Agreement. Without limitation to the foregoing, except as provided in Section 4.2.2(B), the 2006 Agreement is hereby superseded and replaced by this Agreement, except for Intermolecular' s and SanDisk' s surviving confidentiality obligations set forth in the 2006 Agreement. If there is any conflict between the confidentiality provisions in this Agreement and in the 2006 Agreement, the confidentiality provisions in this Agreement shall control. No amendment or change hereof or addition hereto shall be effective or binding on either of the parties hereto unless reduced to writing and executed by the respective duly authorized representatives of Toshiba, SanDisk and Intermolecular. The parties further agree that any additional or inconsistent terms and conditions of any purchase order, invoice or like document issued in connection with this Agreement shall be

superseded in full by the terms and conditions of this Agreement and any Exhibit hereunder, and any such additional or inconsistent terms, unless specifically agreed to in writing by the parties at the time, are hereby rejected.

12.15 **Third Party Beneficiaries**. Except as expressly provided in this Agreement, there are no Third Party beneficiaries expressly or impliedly intended under this Agreement.

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

In Witness Whereof, the parties hereto have executed this document as the Effective Date above, or if no date is set forth, the last date set forth below.

Toshiba Corporation		**SanDisk Corporation**	
By:	/s/ Hiroto Nakai	By:	/s/ Ben Tessone
Name:	Hiroto Nakai	Name:	Ben Tessone
Title:	SM, Flash Business Strategy Development	Title:	VP, Worldwide Procurement

Intermolecular, Inc.

By:	/s/ David Lazovsky
Name:	David Lazovsky
Title:	President & CEO

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Exhibit A–[*]IP (Non-Exhaustive List of Patents as of Effective Date)
Exhibit B–Development Plan
Exhibit C–IM [*]Developed Technology
Exhibit D–Original CDP Developed Technology
Exhibit E–Workflow Infrastructure
Exhibit F–Exclusions from Section 6.2
Exhibit G–Form of Warrant
Exhibit H–Intermolecular Background IP for the CDP

EXHIBIT A

CATEGORY ONE IP

(Non-Exhaustive List of Patents as of Effective Date)

[Intermolecular to provide non-confidential summary to SanDisk and Toshiba prior to Effective Date, and final version to be provided immediately after Effective Date]

Non-confidential summary:

US Applications:

#	Title	Short Description	App. No.	IM Ref. No.
[*]	[*]	[*]	[*]	[*]

PCT Applications:

#	Title	Short Description	Application Number	IM Ref. No.
[*]	[*]	[*]	[*]	[*]

Foreign Applications:

#	Title	Short Description	Country	Application Number	IM Ref. No.
[*]	[*]	[*]	[*]	[*]	[*]

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

EXHIBIT B

DEVELOPMENT PLAN - PHASE I

(Version [*])

[*]

Common criteria for all [*]:

[*]

[*]

Stage	Task	Goal	Timeline	Metric/Output
[*]	[*]	[*]	[*]	[*]
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Intermolecular Confidential

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

EXHIBIT C

IM [*] Developed Technology

US Applications:

#	Title	Short Description	App. No.	IM Ref. No.
[*]	[*]	[*]	[*]	[*]

Intermolecular Confidential

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

EXHIBIT D

Original CDP Developed Technology

[*] ("[*]") and
[*] ("[*]") DOCUMENTATION

[*]

Exhibit A–[*]

Exhibit B–[*] Pivot Table

Exhibit C–Invention Disclosures

Intermolecular Confidential

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EXHIBIT A (1 OF 2)

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Intermolecular Confidential

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EXHIBIT A (2 OF 2)

BKM Condition

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Intermolecular Confidential

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Intermolecular Confidential

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Exhibit B – [*] Pivot Table

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[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Exhibit B - TFS Pivot Table

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[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Exhibit B - TFS Pivot Table

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Exhibit B - TFS Pivot Table

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EXHIBIT C–Invention Disclosures

Docket #	Title	Short Description	Exemplary Claim
[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]
[*]			
[*]	[*]	[*]	[*]

Intermolecular and SanDisk
Confidential Information

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Exhibit C-1

FILE NO. **[*]** INTERMOLECULAR, INC. - CONFIDENTIAL

INTERMOLECULAR, INC.
INVENTION DOCUMENTATION FORM

1. [*]

2. [*]
3. [*]

4. [*]

4(a) [*]
4(b) [*]

4(c) [*]

5. [*]

5(a) [*]
5(b) [*]

6.

7. [*]

7(a) [*]
7(b) [*]

8.

Contains Intermolecular Confidential and
Attorney Client Privileged Information

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

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Contains Intermolecular Confidential and
Attorney Client Privileged Information

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INTERMOLECULAR, INC.
INVENTION DOCUMENTATION FORM

1. [*]

2. [*]
3. [*]

4. [*]

4(a) [*]
4(b) [*]

4(c) [*]

5. [*]

5(a) [*]
5(b) [*]

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7(a) [*]
7(b) [*]

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[*]

INTERMOLECULAR, INC.
INVENTION DOCUMENTATION FORM

1. [*]

2. [*]
3. [*]

4. [*]

4(a) [*]
4(b) [*]

4(c) [*]

5. [*]

5(a) [*]
5(b) [*]

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7. [*]

7(a) [*]
7(b) [*]

8.

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Attorney Client Privileged Information

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Exhibit C-4

Lead Inventor: [*] **Supervisor:** [*]
Docket No.: [*]
TITLE OF INVENTION: [*]

Problem Addressed by Invention:
[*]

Previous Approaches to Solving Problem:
[*]

Brief Description of Invention: (Attach all relevant drawings, specs, flowcharts, design review or notebook entries)
[*]

Enabling and Best Mode disclosure:
[*]

[*]

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[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Alternative structures/steps:

Key Words:
[*]

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EXHIBIT E

Workflow Infrastructure

Dedicated

Equipment	**Description**
[*]	[*]

Other

Equipment	**Description**
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Physical Metrology & E-Test Tools

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EXHIBIT F

Exclusions from Section 6.2

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EXHIBIT G

Form of Warrant

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EXHIBIT H

Exhibit H as of May 10, 2010

Items #	Docket #	Title	Serial No.	Filing Date
[*]	[*]	[*]	[*]	[*]

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[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Wets Workflow Purchase Agreement

This Wets Workflow Purchase Agreement (the "Agreement"), effective as of July 13, 2007, or, if left blank, the last date of signature by a party hereto (the "***Effective Date***"), is made by and between Advanced Technology Materials, Inc., with a principal place of business at 7 Commerce Drive, Danbury, CT 06810 ("***ATMI***"), and Intermolecular, Inc., with a principal place of business at 2865 Zanker Road, San Jose, California 95134 ("***IM***"). ATMI and IM are sometimes referred to herein individually as a "party" and collectively as the "parties."

BACKGROUND

IM and ATMI entered into the Alliance Agreement (defined below) and began working on a collaborative development program directed at a [*] application in November 2006. The parties entered into discussions in March 2007 and signed an LOI in May 2007 to align their interests with respect to the development and sale by IM of a workflow for Wets Processing as contemplated in this Agreement. IM and ATMI now wish to define the terms and conditions under which IM may sell to ATMI and install on its premises one or more workflows for Wets Processing.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as set forth below.

The following exhibits are hereby incorporated into the Agreement:

Exhibit A: Purchase Documentation for Initial Purchase
Exhibit B: Symyx End User License Agreement
Exhibit C: IM Maintenance and Support Services
Exhibit D: Supplemental Workflow Use Acceptance Criteria

Capitalized terms in the Exhibits have the meaning assigned to them in the body of the Agreement, unless otherwise separately defined in the relevant Exhibit.

ARTICLE 1
DEFINITIONS

1.1 "***Adobe Software***" means machine readable, object code versions of software provided by IM to ATMI pursuant to this Agreement (if identified in Purchase Documentation), and licensed by Adobe Systems Incorporated to ATMI in accordance with the terms and conditions of ATMl' s end user license agreement with Adobe.

1.2 "***Affiliate***" means any entity directly or indirectly controlling, controlled by or under common control with, a party to this Agreement. For purposes of this Agreement, only the direct or indirect ownership of fifty percent (50%) or more of the voting securities of an entity shall be deemed to constitute control.

1.3 "***Alliance Agreement***" means the agreement between the Parties with that title executed with an effective date of November 17, 2006.

1.4 "***Agreement WF Compound***" means any Lead WF Compound or Derivative WF Compound.

1.5 "***Alliance Technology***" has the meaning assigned to it in the Alliance Agreement.

1.6 "***ATMI Independent Technology***" means all Intellectual Property Rights (other than Alliance Technology) that is (i) owned, licensed or otherwise controlled by ATMI on or prior to the Alliance Agreement Effective Date; or (ii) created, conceived or reduced to practice by ATMI employees, contractors or agents without reliance upon, use of or benefit of (a) the HPC Technology, (b) the HPC-Derived Technology licensed or developed hereunder, (c) IM Independent IP, or (d) any technology, know-how or technical information provided by or obtained from an IM employee, contractor or agent, directly and or indirectly.

1.7 "***Competitor***" means a direct Materials competitor of ATMI, as listed by ATMI in writing at the time of any Formal Disclosure, but in any event shall include the following companies (which list may be updated from time to time by mutual agreement of the parties, which agreement shall not be unreasonably withheld): [*], and [*].

1.8 "***Confidential Information***" means any information disclosed by one party to the other in connection with this Agreement, whether in electronic, written, graphic, oral, machine readable or other tangible or intangible form, that is (i) marked or identified at the time of disclosure as "Confidential" or "Proprietary" or in some other manner so as to clearly indicate its confidential nature, or (ii) if disclosed orally should reasonably be considered confidential by the receiving party given the nature of the information or the circumstances of its disclosure.

1.9 "***Derivative WF Compound***" means any compound or mixture that is made or derived from a Lead WF Compound pursuant to this Agreement. As used in this Agreement, a compound or mixture shall be deemed to have been "derived from" a Lead WF Compound if it results from the use of HPC Technology, Alliance Technology, or IM Independent IP, or is otherwise related to a Lead WF Compound. For the purpose of this definition, "otherwise related" shall mean any further modifications to a Lead WF Compound or Derivative WF Compound outside of this Agreement, including any compound based on structure and/or performance data relating to one or more Lead WF Compounds. Derivative WF Compounds shall also include a compound that is synthesized, based on, or

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derived from another Derivative WF Compound pursuant to this Agreement. "Derivative WF Compound" shall not include any compound or mixture developed independently by ATMI or its Affiliates or sublicensees without reliance on Alliance Technology or IM Independent IP, and that does not infringe or misappropriate the Alliance Technology or IM Independent IP.

1.10 "***Equipment***" means Wets Workflow hardware tools (excluding Informatics Hardware) that may be sold pursuant to this Agreement, conforming to the Specifications set forth in the Purchase Documentation.

1.11 "***Excluded Company***" means any of the following three (3) companies or their Affiliates who compete with ATMI in the Wets Processing markets: [*], and [*].

1.12 "***Field***" means the "Field" defined in that certain agreement, effective as of December 19, 2005, forming an alliance between IM and Symyx Technologies, Inc. (also termed an Alliance Agreement), as such definition in such agreement may be expanded from time to time.

1.13 "***HPC Technology***" means all techniques, methodologies, processes, test vehicles, synthetic procedures, technology, systems, or combination thereof (collectively, "Techniques") (a) subject to or covered by any Intellectual Property Right owned by IM or licensed to IM, (b) provided by IM to ATMI and (c) used for the simultaneous parallel or rapid serial: (i) design, (ii) synthesis, (iii) processing, (iv) process sequencing, (v) process integration, (vi) device integration, (vii) analysis, or (viii) characterization of

more than two (2) compounds, compositions, mixtures, processes, or synthesis conditions, or the structures derived from such. HPC Technology does not include any of the foregoing Techniques to the extent they were (A) used by ATMI prior to [*], (B) created, conceived or reduced to practice by ATMI independent of both this Agreement and the Alliance Agreement, without reliance on or use or benefit of Alliance Technology, IM Independent IP, or any technology, know-how or information provided by or obtained from an IM employee, contractor or agent, directly and or indirectly. It is understood that test vehicles include physical and or electrical characterization devices such as test structures or chips, used in the design, process development, manufacturing process qualification, and manufacturing process control of Integrated Circuit devices. It is also understood that HPC Technology does not include the use of equipment that is commercially available (from parties other than IM) in commercial manufacturing for nominally uniform processing of one or more identical Integrated Circuits on a single substrate, or the use of such equipment in research and development for nominally uniform processing of one or more Integrated Circuits on a single substrate.

1.14 "***HPC-Enabled Informatics Software***" means software that enables Equipment to use HPC Technology. "***Non-HPC-Enabled Informatics Software***" means

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software that operates Equipment without enabling it to utilize HPC Technology. Use of HPC-Enabled Informatics Software at a Site requires an HPC Site License, in addition to a license to use the software.

1.15 "***HPC Site License***" means a license to use HPC Technology at a specific Site, for the term specified in the Purchase Documentation.

1.16 "***Informatics Hardware***" means the information technology hardware manufactured by Third Parties, conforming to the specifications therefor as described in Purchase Documentation.

1.17 "***Informatics Software***" means machine readable, object code versions of the software licensed to be used with the Informatics Hardware, and related documentation, together with the Updates, if any that may be provided by IM to ATMI during its license term. Informatics Software may consist of either HPC-Enabled Informatics Software or Non-HPC-Enabled Informatics Software. Informatics Software does not include Third Party Software.

1.18 "***IM Independent IP***" means all Intellectual Property Rights that are (i) owned, licensed or otherwise solely controlled by IM as of the Effective Date; or (ii) created, conceived or reduced to practice by IM employees, contractors or agents without reliance, use or benefit of (a) ATMI Independent Technology or (b) technology, know-how or technical information provided by or obtained from an ATMI employee, contractor or agent, directly and or indirectly and including the HPC Technology.

1.19 "***Intellectual Property Rights***" means rights in and to any and all (i) U.S. and foreign patents and patent applications claiming any inventions or discoveries made, developed, conceived, or reduced to practice, including all divisions, substitutions, continuations, continuation-in-part applications, and reissues, reexaminations and extensions thereof, (ii) copyrights, (iii) unpatented information, trade secrets, data, or materials, (iv) trademarks, service marks, trade names, trade dress, domain names and similar rights, (v) mask work rights, and (vi) any other intellectual or other proprietary rights of any kind now known or hereafter recognized in any jurisdiction.

1.20 "***Lead WF Compound***" means a compound or material identified, first synthesized, or discovered in whole or in part through use of any Wets Workflow provided through this Agreement.

1.21 "***Material***" means a specific compound or composition of materials.

1.22 "***Materials Manufacturing Technology***" means any data, know-how, techniques, methods, processes, or other technologies for the synthesis, production, packaging, shipping or distribution of commercial quantities of one or more Products, excluding HPC Technology, that is developed, directly or indirectly,

through the use of the Wets Workflow that is provided in connection with this Agreement.

1.23 "***Metrology/Characterization Technology***" means technology relating to measurements, systems, methods, techniques, test vehicles, synthetic procedures or combination thereof, used to measure Materials or processing characteristics or parameters of wafers, wafer samples or other substrates.

1.24 "***Microsoft Software***" means machine readable, object code versions of software provided by IM to ATMI pursuant to this Agreement (if identified in Purchase Documentation), and licensed by Microsoft Corporation to ATMI in accordance with the terms and conditions of ATMI' s end user license agreement with Microsoft.

1.25 "***Named User***" means an ATMI employee or subcontractor, or other party with the prior written consent of IM, who has signed a nondisclosure agreement as restrictive as the confidentiality terms set forth herein and who uses the Informatics Software, or any part of the Informatics Software. Named Users may be changed or replaced according to reasonable and ordinary business practices such as termination of employment or changes in job function.

1.26 "***Oracle Software***" means machine readable, object code versions of software provided by IM to ATMI pursuant to this Agreement (if identified in Purchase Documentation), and licensed by Oracle Corporation to ATMI in accordance with the terms and conditions of ATMI' s agreement with Oracle.

1.27 "***Product***" means a Material that incorporates an Agreement WF Compound or utilizes an Agreement WF Compound in its manufacture and/or methods of using the same.

1.28 "***Purchase Order***" means a valid purchase order issued by ATMI to IM in response to a Quote, and that incorporates by reference the terms and conditions of this Agreement and the applicable Quote.

1.29 "***Purchase Documentation***" has the meaning set forth in Section 2.2.

1.30 "***Quote***" means the applicable IM sales quotation document issued to ATMI that incorporates by reference the terms and conditions of this Agreement, and that includes an offer for sale of one or more of the following: the combination described in the applicable quotation of (a) Equipment, (b) Informatics Hardware, (c) licenses to use HPC-Enabled or Non-HPC-Enabled Informatics Software, (d) licenses to use Symyx Software, Oracle Software and/or Microsoft Software; (e) Services in connection with the configuration, and installation of Equipment and/or Informatics Hardware, and/or (f) other Services in connection therewith.

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1.31 "***Services***" means services that IM performs for ATMI as described in any Purchase Documentation.

1.32 "***Site***" means a building specifically identified in the applicable Purchase Documentation, or a replacement site as subsequently agreed by the parties in writing, which agreement shall not be unreasonably withheld. Notwithstanding the foregoing, in the case of a Wets Workflow sale to ATMI, the HPC Site License for the original licensed Site shall be deemed to apply to any Wets Workflow at any site that is, now or in the future, owned or leased or rented or otherwise controlled by ATMI or an Affiliate, so long as ATMI is not in breach of this Agreement.

1.33 "***Software FX, Inc. Software***" means machine readable, object code versions of software provided by IM to ATMI pursuant to this Agreement (if identified in Purchase Documentation), and licensed by Software FX, Inc. to ATMI in accordance with the terms and conditions of ATMI' s end user license agreement with Software FX.

1.34 "***Specifications***" means specifications of and requirements for (a) any of the Equipment or Informatics Hardware sold in connection therewith, or (b) HPC-Enabled Software or Non-HPC-Enabled Informatics Software licensed in connection therewith.

1.35 "***Symyx Software***" means machine readable, object code versions of software licensed by Symyx Technologies, Inc., and, if identified in the Purchase Documentation, sublicensed by IM to ATMI in accordance with the terms and conditions set forth in Exhibit B.

1.36 "***Support***" means the maintenance and support Services as described in Exhibit C, for the term specified in the applicable Quote.

1.37 "***Third Party***" shall mean any person or entity other than ATMI and its Affiliates, IM and its Affiliates, and their permitted assigns.

1.38 "***Third Party Software***" is software that may be provided as part of a Wets Workflow that is published by a third party (e.g. Symyx Technologies, Inc., Oracle Corporation, Adobe Systems Incorporated, Software FX Inc., or Microsoft Corporation).

1.39 "***Wets Processing***" means a set of operations for the development or application of liquid or fluid-based Materials, which Materials are used in semiconductor manufacturing for cleaning, etching, or electro less deposition

1.40 "***Wets Workflow***" means the combination of one or more of the following as described in the applicable Quote: Equipment; Informatics Hardware; Third Party Software and/or Informatics Software; an HPC Site License.

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ARTICLE 2
QUOTES; PURCHASE ORDERS

2.1 **Purchases**. This Agreement sets forth terms and conditions under which IM may sell to ATMI one or more Wets Workflows, and the terms and conditions under which IM may provide related Services.

2.2 **Purchase Documentation**. Each Purchase Order that IM accepts, together with the accompanying Quote, the Specifications, any acceptance criteria in connection with the sale and purchase ("***Acceptance Criteria***") and any Statement of Work for additional Services to be provided in connection therewith, shall constitute "***Purchase Documentation***". Notwithstanding the foregoing, additional provisions regarding Specifications and Acceptance Criteria for the first Wets Workflow are set forth in Exhibit D, which shall be deemed part of the Purchase Documentation. The Purchase Documentation for the initial purchase is set forth in Exhibit A. Exhibit A-1 is a Quote for a second Wets Workflow for installation in an ATMI facility, with acceptance in 2008. If ATMI places a second purchase order with IM by the end of March, 2008, IM shall provide a volume discount for that second Wets Workflow, as shown in Exhibit A-1; if IM accepts said purchase order, it shall be deemed to have been incorporated into Exhibit A-1 as Purchase Documentation (it being understood and agreed that IM will accept said purchase order if it is consistent with the terms of the Quote

incorporated into Exhibit A-1, subject to mutual agreement concerning delivery date and shipping instructions). Each subsequent set of Purchase Documentation shall be deemed to be incorporated herein as Exhibit A-2, Exhibit A-3, *et seq*., and together with the terms and conditions of this Agreement, shall constitute the complete agreement regarding that purchase and sale. Notwithstanding the foregoing, nothing contained in any Purchase Order, Purchase Order acknowledgment, or invoice shall in any way modify the terms and conditions of this Agreement, or add any additional terms or conditions; provided, however, that such standard variable terms as price, quantity, delivery date, shipping instructions and the like, as well as tax exempt status, if applicable, shall be specified on each purchase order or acknowledgment. Any purchase order ATMI issues will include the fees and payment terms as set forth in the applicable Quote. IM will accept each said purchase order if it is consistent with the terms of the offer set forth in the applicable Quote, subject to mutual agreement concerning delivery date and shipping instructions. ATMI' s issuance of a Purchase Order referencing a Quote will constitute its agreement to pay IM the fees, plus applicable taxes as set forth below, in accordance with and subject to the terms of this Agreement (including, without limitation, ATMI' s acceptance rights hereunder). Any software provided hereunder is licensed, not sold, to ATMI and any reference to the "sale" or "purchase" of software shall be deemed to mean "license."

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ARTICLE 3
DELIVERY; ACCEPTANCE; TRAINING, SUPPORT, AND OTHER SERVICES

3.1 **Wets Workflow Assembly and Target Deliver Date**. IM shall use commercially reasonable efforts to complete assembly and configuration of each part of a Wets Workflow identified in Purchase Documentation and deliver same on or before the applicable target delivery date specified therein for that part ("***Target Delivery Date(s)***"). ATMI acknowledges that the Target Delivery Date(s) are in fact targets; provided, however, that if IM misses a Target Delivery Date, ATMI may terminate the applicable Purchase Documentation in accordance with the provisions of Section 11.2(i).

3.2 **Factory Acceptance**. IM shall provide ATMI with written notice that it has completed the assembly and configuration of any Wets Workflow item that ATMI is purchasing hereunder, which is to be completed on-site at IM' s facilities, and that it is accordingly ready to arrange for delivery. Prior to such delivery, IM shall demonstrate to ATMI that any Wets Workflow item sold pursuant to the Purchase Documentation satisfies the Acceptance Criteria set forth therein and shall allow ATMI to conduct tests to ensure compliance with said Acceptance Criteria at IM' s facilities. This demonstration and testing shall take place at IM' s facilities (ATMI will pay its own expenses to attend), and shall commence no later than ten (10) business days following said written notice. Upon completion of said demonstration and testing, ATMI will either (i) confirm in writing that factory acceptance of the Wets Workflow item has occurred, and ATMI shall make the payment associated therewith as set forth in the Purchase Documentation, or (ii) identify with reasonable detail any deficiencies, in which case IM will promptly remedy the same and the foregoing demonstration and testing will be repeated. If IM is unable to remedy the deficiency, ATMI may terminate the applicable Purchase Documentation in accordance with the provisions of Section 11.2(i).

3.3 **Delivery and Final Acceptance**. Upon factory acceptance of a Wets Workflow item, IM will prepare the Wets Workflow item for shipment. ATMI shall bear all expenses of insurance, packaging and transportation. Title to the Equipment and Informatics Hardware and/or software licenses sold in connection therewith shall pass to ATMI at IM' s site upon delivery to the shipper, on the date so delivered (the "***Delivery Date***"). ATMI shall prepare the site for installation of the Wets Workflow item in accordance with the Site preparation specification set forth in the Purchase Documentation prior to the Delivery Date. IM will assist ATMI with the process of unpacking the Equipment and Informatics Hardware at the Site designated in the Purchase Documentation, and with its installation at the Site. Upon completion of the installation, IM and ATMI will repeat the demonstration and testing, respectively, in order to ensure that the Wets Workflow item meets the Acceptance Criteria that occurred in connection with factory acceptance. Upon completion of said demonstration and testing, ATMI will either (i) confirm in writing that final acceptance of the Wets Workflow item has occurred, and

ATMI shall make the payment associated therewith as set forth in the Purchase Documentation, or (ii) identify with reasonable detail any deficiencies, in which case IM will promptly remedy the same and the foregoing demonstration and testing will be repeated. If IM is unable to remedy the deficiency, ATMI may terminate the applicable Purchase Documentation in accordance with the provisions of Section 11.2(i). Notwithstanding the foregoing, if said demonstration cannot take place in a timely fashion because the Site has not been prepared in accordance with the Site preparation specification set forth in the Purchase Documentation as of the Delivery Date, final acceptance shall be deemed to have occurred thirty (30) days following the Delivery Date.

3.4 **Support; Training; Services**. IM will provide ATMI with the Support and the training specified in Exhibit C. For any future purchases, the Support to be provided will be subject to any modifications set forth in the Purchase Documentation. Any additional Services to be provided by IM will be provided on a time and materials basis at its then-current rates (plus reasonable travel expenses, if any) pursuant to a mutually executed statement of work.

ARTICLE 4
PROPRIETARY RIGHTS; LICENSES; UPDATES; EXCLUDED COMPANIES; SOURCE CODE ESCROW

4.1 **Alliance Agreement**. Nothing in this Agreement is intended to modify the respective rights and obligations of the Parties as set forth in the Alliance Agreement. Moreover, for the avoidance of doubt, the parties affirm that they do not intend for this Agreement to supersede the terms of any CDP the parties have executed pursuant to the Alliance Agreement, or that the parties subsequently execute.

4.2 **Proprietary Rights**. As between ATMI and IM, ATMI shall be the sole owner of all right, title, and interest in and to (i) the ATMI Independent Technology, (ii) Intellectual Property Rights relating to Materials or Products and methods of using Materials or Products, (iii) Metrology/Characterization Technology that is not HPC Technology, and (iv) Materials Manufacturing Technology, and improvements to any of the foregoing ("***ATMI Technology***") derived through ATMI' s use of the Wets Workflow purchased herein. IM will grant and hereby grants to ATMI all right, title, and interest in and to said ATMI Technology. All rights to ATMI Technology and any improvements thereto not expressly granted in the Agreement shall be reserved to ATMI. As between ATMI and IM, IM shall be the sole owner of the IM Independent IP, Metrology/Characterization Technology that is HPC Technology, HPC Technology, and any improvements to any of the foregoing ("***IM Technology***"). All rights to IM Technology and any improvements thereto shall be reserved to IM. ATMI will grant and hereby grants to IM all right, title, and interest in and to said IM Technology.

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4.3 **Licensed Software**. ATMI shall not be an owner of any copies of the Informatics Software, Third Party Software or any documentation delivered to ATMI, but is rather licensed pursuant to this Agreement to use any of the Informatics Software or documentation specified in Purchase Documentation, or licensed pursuant to the applicable license agreement for Third Party Software. ATMI acknowledges and agrees that the features or the graphical user interface of the Informatics Software (the "User Interface"), including, without limitation, icons, menus and screen designs, screen layouts, and command and screen sequence, are proprietary to IM and/or its licensors, and are disclosed to ATMI under a condition of confidentiality. ATMI agrees that it will not create software programs incorporating any proprietary part of the User Interface. Nevertheless, if ATMI creates one or more data loaders for metrology and/or testing equipment that it wishes to integrate into the Wets Workflow, IM will work with ATMI on a

time and materials basis (subject to the mutual prior written agreement of the parties and at IM' s then-current IM monthly FTE rate (the rate in the most recent Quote, as set forth in Exhibit A, shall be valid for a period of 1 year) to facilitate the use of said data loader(s) with the User Interface. ATMI further acknowledges that the User Interface is a copyrighted work of IM and/or its licensors.

4.4 **License Grant for Informatics Software; HPC Site License**. Subject to the terms and conditions of this Agreement, IM hereby grants to ATMI a nonexclusive, non-transferable, license, without the right to sublicense, to use the Equipment and install and execute the Informatics Software identified in the Purchase Documentation on the Equipment and/or Informatics Hardware for which it was purchased and upon which it was installed, for use by Named Users, for the term specified in the Purchase Documentation, solely at the Site, and solely for the purpose of developing and commercializing Materials, Wets Processing, Products, and Materials Manufacturing Technologies in the Field. ATMI shall have no right to use HPC Technology under this Agreement unless it purchases HPC-Enabled Informatics Software and purchases an HPC Site License for any Site where it will use HPC Technology (subject to the exception noted in Section 1.29). Moreover, ATMI' s license to use HPC Technology shall only be for operation of the Equipment for which it has purchased HPC-Enabled Informatics Software, and only for the license term for such software and the HPC Site License, and solely on the Site. The scope of the HPC Site license and the HPC-Enabled Informatics Software license granted by IM to ATMI hereunder does not include the right to use the Wets Workflow on behalf of Third Parties, except where the intended purpose of such activities is (a) the qualification or sale by ATMI of a resulting Material or Product, or (b) the licensing by ATMI to one or more of its Materials partners or customers to make, use or sell such resulting Material or Product, or from a combination of (a) and (b). IM shall continue to be the preferred supplier of all HPC Technology solutions for such research and development activities, as set forth in the Alliance Agreement. The licenses granted hereunder shall be subject to the payment of all fees set forth in the Purchase Documentation, including but not limited to the royalties defined therein. IM commits that through [*], ATMI will have the right to renew its

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HPC Site License and license for Informatics Software on the same terms and conditions included in this Agreement, including pricing terms.

4.5 **Third Party Software**. ATMI' s use of Symyx Software shall be governed by the terms and conditions set forth in Exhibit B. ATMI' s use of Oracle Software shall be governed by the terms and conditions set forth in ATMI' s end user license agreement with Oracle. ATMI' s use of Microsoft Software shall be governed by the terms and conditions set forth in ATMI' s end user license agreement with Microsoft. ATMI' s use of Adobe Software shall be governed by the terms and conditions set forth in ATMI' s end user license agreement with Adobe. ATMI' s use of Software FX Software shall be governed by the terms and conditions set forth in ATMI' s end user license agreement with Software FX. All such end user license agreements for Third Party Software shall be perpetual use licenses.

4.6 "**Improvements**" **Defined**. As used in this Section 4, "***Improvements***" means improvements, additions, or modifications to the Equipment or to the use or application of Equipment that IM or ATMI, as applicable, conceives, reduces to practice or otherwise develops, other than Updates (as defined in Section 4.12), after the Delivery Date. "***ATMI Improvements***" means Improvements wholly conceived, reduced to practice, or otherwise developed by ATMI that were not known to IM prior to Formal Disclosure by ATMI to IM (as defined in Section 4.8.2), or that were not generally available to the public or otherwise part of the public domain at the time of Formal Disclosure. "***ATMI Use Improvements***" means ATMI Improvements that are new methods of use or modifications to existing methods of use of Equipment in Wets Processing that can be implemented without any improvements, additions or modifications to the Equipment. ATMI Improvements shall not include improvements to the Equipment manufactured by Symyx Technologies, Inc. that is identified as item 3 in Annex 1 to the Purchase Documentation in Exhibit A, or improvements to Informatics Software. "***IM Improvements***" means Improvements wholly conceived or reduced to practice by IM.

4.7 **IM Improvements**. IM Improvements are not included within the scope of rights granted hereunder. IM may periodically offer IM Improvements for sale or license to ATMI and will negotiate in good faith with ATMI terms in connection therewith; provided, that IM will offer to ATMI any IM Improvements that it makes generally available to its other customers, except as limited by any Third Party agreement. Any such sale or license shall require the mutual execution of Purchase Documentation explicitly describing the sale or license to ATMI of IM Improvements.

4.8 **ATMI Improvements**. All improvements to the HPC Technology derived from, based on, or invented in whole or in part through ATMI' s use of the Wets Workflow pursuant to this Agreement or using the Wets Workflow purchased herein, whether an ATMI Improvement or not, and all Intellectual Property Rights therein, shall be owned by IM and if initially conceived, reduced to practice or

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developed by ATMI (whether or not implemented by IM as set forth in Section 4.8.1), shall be assigned to IM as set forth in Section 4.2. IM hereby grants a non-exclusive, royalty-free license (i.e., IM shall not increase the HPC Site License or HPC Enabled Software License due to the implementation or use of such Improvement) to ATMI to use any Improvement (other than an IM Improvement) on or with any Wets Workflow for which ATMI continues to pay the HPC Site License fee and continues to license the HPC-Enabled Informatics Software. Notwithstanding the foregoing, no license to ATMI to use HPC Technology beyond the term or beyond the scope of any license granted to ATMI to use HPC Technology is intended or granted by the preceding sentence. Any notification of a proposed ATMI Improvement shall comply with the procedure set forth in Section 4.8.2, below. Notwithstanding the foregoing, if IM wishes to commercialize any non-obvious ATMI Improvement for sale to third parties, IM shall first negotiate with ATMI in good faith to agree upon reasonable compensation to ATMI in view of the contribution of the ATMI Improvement to the value of the Wets Workflow or a component thereof. If the Parties cannot agree on such compensation then they shall follow the provisions of Section 4.8.3.

4.8.1 Any implementation by IM of ATMI Improvements on ATMI' s behalf shall be the subject of a separately executed statement of work between the parties that shall specify the commercial and other terms.

4.8.2 ATMI may disclose ATMI Improvements to IM pursuant to this paragraph. Before fully disclosing any Confidential Information with respect to an ATMI Improvement to IM, ATMI shall first send a written non-Confidential summary of the proposed ATMI Improvement to the attention of the IM Legal Department. Within [*] days of the non-confidential disclosure, IM shall inform ATMI that IM either does or does not wish to receive a more detailed description of the proposed ATMI Improvement that ATMI may label as Confidential Information ("***Formal Disclosure***"). If IM does not wish to receive the more detailed description of the ATMI Improvement, ATMI may maintain such ATMI Improvement as a trade secret. For the avoidance of doubt, the preceding sentence shall not change the provisions of this Agreement concerning ownership of Improvements. Furthermore, IM' s ability to sell, license and sub-license HPC Technology shall not be limited by (i) the non-Confidential disclosure above or (ii) any disclosure by ATMI to IM employees separate from any Formal Disclosure (other than disclosures to IM employees that are subject to the IP firewall described in Section 7.5(a) hereof) of an ATMI Improvement that ATMI decides to maintain as a trade secret. Within a reasonable time after its receipt of the Formal Disclosure, IM shall provide notice to ATMI that either (a) IM does not wish to implement the proposed ATMI Improvement, and that it is returning the Confidential Information (except as required for archival purposes), or (b) IM wishes to further study the feasibility of implementing or commercializing the ATMI Improvement including a

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proposal on how to proceed. Notwithstanding the foregoing, during the one-year period following final acceptance of the first Wets Workflow sold under this Agreement, ATMI shall disclose no more than two (2) potential ATMI Improvements during anyone of the four three-month periods immediately following said final acceptance for consideration by IM above. The restrictions set forth in Section 4.13.1 only shall apply to ATMI Improvements for which there has been a Formal Disclosure (provided that the foregoing shall in no way change or reduce IM' s obligations pursuant to Section 7.5(a) hereof). References to obligations and disclosures Section 7.5 in this Section specifically exclude disclosures by ATMI to IM employees related to improvements, changes or modifications to the Equipment and IM shall be free to sell, license and sub-license HPC Technology relating to Equipment disclosed outside of the Formal Disclosure process. If ATMI proposes an ATMI Improvement following said one-year period, the parties will negotiate in good faith on a case by case basis any special terms and conditions that will be applicable to the sale to Third Parties of Equipment into which such future ATMI Improvements may be implemented.

4.8.3 Notwithstanding Section 12.16 of this Agreement, in the event that the parties cannot agree for a period of [*] after escalation to their respective chief executive officers to a reasonable compensation for a Section 4.8 proposal, then either party may submit the issue of the amount of compensation due to ATMI if IM implements the ATMI Improvement to final and binding arbitration, before a single, mutually-acceptable arbitrator, conducted in accordance with the Commercial Arbitration Rules of AAA, solely for determination of the reasonable compensation. If the parties are unable to select a mutually acceptable arbitrator, AAA shall appoint an arbitrator or provide a method for selection. Any arbitration proceedings shall be conducted in Phoenix, Arizona. Each party shall bear its own expenses, including attorneys' fees, and the parties will share equally the costs and fees of the arbitrator. Prior to the actual arbitration hearing, each party shall provide the arbitrator a written proposal for a reasonable compensation that such party believes to be fair to both parties in the circumstances. The arbitrator must render a written decision within ten (10) days of the hearing in favor of one party' s proposal or the other, without modification. The arbitrator must determine the prevailing party by assessing the proposal, and its fairness in light of the relevant Intellectual Property Rights, technology contributions, and development and commercialization costs and expenses of each party, as well as the potential markets for the proposed application and whether third party Intellectual Property Rights, development efforts, commercialization efforts or investment is required to commercialize the proposed application. The parties shall use all reasonable efforts to complete any arbitration subject to this section within three (3) months from the filing of notice of a request for such arbitration. The parties

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undertake and agree that all arbitral proceedings shall be kept confidential, and all information, documentation, materials in whatever form disclosed in the course of such arbitral proceeding shall be used solely for the purpose of those proceedings. Nothing in this section shall require IM to implement the ATMI Improvement following the decision of the arbitrator.

4.9 **Restrictions**. Except as expressly permitted by this Agreement, ATMI agrees that it will not itself, and will not through any parent, subsidiary, Affiliate, agent, or other Third Party, directly or indirectly, do any of the following: (i) reproduce, distribute, copy, sell, create derivative works of, lease, license, or sublicense the Informatics Software or any component of either, or any documentation delivered to it pursuant to this Agreement; (ii) use the Informatics Software in connection with any equipment other than the Equipment and the Informatics Hardware; (iii) attempt, or permit any Third Party, to reverse engineer, disassemble, decrypt, decompile, or otherwise attempt to derive source code from the Informatics Software; or (iv) use any Informatics Software that may be licensed hereunder in connection with any time-sharing or other multi-user network or service bureau. ATMI agrees that access to any Equipment, Informatics Hardware, and/or Informatics Software shall be limited to Named Users who are employees of ATMI

(and independent contractors approved by IM in writing, which approval shall not be unreasonably withheld) working directly with ATMI.

4.10 **Named Users**. ATMI agrees to establish and maintain records of the identities of Named Users and changes thereto, and to make such records available to IM upon request.

4.11 **Legend**. All copies of the Informatics Software shall include IM' s copyright, trademarks, patent numbers, and other proprietary notices in the manner in which such notices were placed by IM on such Informatics Software. Further, IM may label the Equipment with a permanent non-erasable identification label including but not limited to IM' s name, IM' s model number, a sequential serial number in IM' s standard format, date of manufacture, location manufactured, and specification version to which the Equipment was manufactured. ATMI shall not remove, obscure, or alter IM' s copyright notices, trademarks, patent numbers, or other proprietary rights notices affixed to or contained within the Informatics Software or the Equipment.

4.12 **Updates**. Subject to payment by ATMI of the amounts set forth in the applicable Purchase Documentation, throughout the term specified in Purchase Documentation that IM has agreed to provide support Informatics Software (the "***Support Term***"), IM will provide ATMI with error corrections, bug fixes or workarounds ("***Updates***") to the Informatics Software that is developed by IM solely to ensure that the Informatics Software performs in accordance with its Specifications, as IM makes those Updates generally available to its customers. Updates will also include improvements to the Informatics Software developed by

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IM that may be released by IM from time to time, other than upgrades of the Informatics Software that are offered to IM' s customers for a separate fee.

4.13 **Excluded Companies.**

4.13.1 Subject to Section 4.8, IM agrees that it will not, except with the written consent of ATMI, either:

(a) disclose or license to any Competitor any ATMI Use Improvements for a period of [*] after Formal Disclosure, except that IM shall have the right to provide licenses of a broad or general scope that do not specifically mention or otherwise disclose the ATMI Use Improvement, or

(b) disclose, license or sell any ATMI Improvement, other than an ATMI Use Improvement, that ATMI implements on its Equipment to any Excluded Company until [*] after such implementation. Notwithstanding the foregoing, if ATMI decides not to implement such ATMI Improvement within [*] of IM' s notice that it is available, IM shall be free to license or sell such ATMI Improvement without restriction.

4.13.2 IM agrees that it will not ship any Element to an Excluded Company prior to the Exclusivity Expiration Date for that Element. (An "***Element***" shall mean either the Integration Screening & Scale-up (I&S) System, Wets, or the Material & Device Screening (M&D) System, Wets.) The "Exclusivity Expiration Date" for that Element shall initially be the date [*] after the date of final acceptance for that Element, and shall be extended by an additional [*] for each accepted order that ATMI places for that Element before the Exclusivity Expiration Date. ATMI may also extend by [*] the Exclusivity Expiration Date for each Element that has not reached its Exclusivity Expiration Date by successfully brokering the sale of a complete Wets Workflow by IM to any materials company with which ATMI has a then-established working relationship (an "ATMI Materials Partner"). ATMI shall only be deemed to have successfully brokered the sale prior to the occurrence of the Exclusivity Expiration Date if the ATMI Materials Partner, in IM' s sole discretion, (a) is deemed credit-worthy by IM, (b) issues a purchase order acceptable to IM, and (c) signs an agreement for the purchase of the Equipment, Informatics

Hardware, and the licenses to Informatics Software, Third Party Software, and/or HPC Site License that constitute a Wets Workflow, under terms and conditions that are substantially identical to those set forth in this Agreement (except for terms relating to exclusivity and volume discounts, and terms relating to the Alliance Agreement). Notwithstanding anything to the contrary herein, no Exclusivity Expiration Date shall be extended beyond [*].

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4.13.3 Nothing in this Agreement shall preclude IM from (a) shipping a Wets Workflow in whole or in part to a company that is not an Excluded Company at any time, or (b) shipping a Wets Workflow in whole or in part to an Excluded Company on or after the end of the Exclusivity Expiration Date or [*], whichever occurs earlier.

4.14 **Beta Site**. IM will offer ATMI to be a beta site for future HPC product offerings, under terms to be mutually agreed on a case by case basis in future beta site agreements. The provisions of this Agreement with respect to compensation for ATMI Improvements, as well as the restrictions set forth in Section 4.12.1 shall be inapplicable to beta sites for IM product offerings.

4.15 **Source Code Escrow**. In the event that (i) IM becomes insolvent or bankrupt, (ii) IM makes an assignment for the benefit of creditors, (iii) IM consents to a trustee or receiver appointment, (iv) a trustee or receiver is appointed for IM or for a substantial part of its property without its consent, (v) IM voluntarily initiates bankruptcy, insolvency, or reorganization proceedings, or is the subject of involuntary bankruptcy, insolvency, or reorganization proceedings, or (vi) IM announces that it has entered into an agreement to be acquired by a then named Competitor, then IM and ATMI will negotiate in good faith to enter into a source code escrow agreement with Iron Mountain Incorporated in a form provided by Iron Mountain Incorporated (or if Iron Mountain Incorporated is no longer engaging in the source code escrow business, a mutually agreed source code escrow company) setting forth source code escrow deposit procedures and source code release procedures relating to Informatics Software. Notwithstanding the foregoing, the escrow instructions shall provide for a release of the source code to ATMI of the Informatics Software only upon the occurrence of (a) the filing of a Chapter 7 bankruptcy petition by IM, or a petition by IM to convert a Chapter 11 filing to a Chapter 7 filing; (b) the cessation of business operations by IM; or (c) the failure on the part of IM to comply with its contractual obligations to ATMI to comply with its maintenance and support obligations for a period of more than [*] after it has received written notice of said breach. Any dispute between the parties over whether an event has occurred that would trigger a release of source code to ATMI pursuant to the source code escrow instructions shall be resolved pursuant to Section 12.16. In the event of a release of Informatics Software source code pursuant to this section, said source code shall continue to be the Confidential Information of IM or its successor in interest In the event of a release of source code to ATMI from escrow, ATMI may only use, copy and/or modify the source code consistent with the purposes of this agreement (or have a contractor who has agreed in writing to confidentiality provisions as restrictive as those set forth in this Agreement do so on its behalf).

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ARTICLE 5
PAYMENTS AND TAXES

5.1 **Invoicing and Payment**. Unless otherwise stated in the Purchase Documentation, after delivery of goods or performance of services, IM shall promptly render to ATMI correct and complete invoices, which shall specify at least the following information: purchase order number, item number, description of goods, quantities, unit prices, extended totals and applicable taxes. ATMI shall pay to IM the fees and taxes set forth in the applicable Purchase Documentation within [*] of receiving IM' s valid invoice.

5.2 **Transaction Taxes**. Fees payable to IM under this Agreement are exclusive of any transaction taxes (including sales, use, consumption, value-added and similar transaction based taxes, or withholding taxes) which may be imposed, in accordance with applicable laws, as a result of the licenses granted by IM to ATMI, and the sale of one or more Wets Workflows hereunder. ATMI agrees to bear or reimburse IM for all such transaction taxes. IM assumes responsibility to timely remit tax payments that it collects from ATMI to the appropriate governmental authority after receipt from ATMI, in each respective jurisdiction.

ARTICLE 6
REVENUE SHARE OR ROYALTIES

6.1 **Compensation, Revenue Share or Royalties**. Each party will pay the other party any compensation, revenue share payments or royalties due as agreed between the parties. Any revenue share or royalty due from a party shall be paid on a calendar quarter basis following shipment of the products that trigger the payment as set forth in Section 6.4. The licenses granted by IM to ATMI shall be subject to payment of all fees set forth in any quotation for which ATMI issues IM a purchase order, including a royalty to IM of [*]% of gross sales proceeds on Products (less the following when separately itemized on or included and identifiable in invoices related to the sale of the Product: (i) allowances, discounts, including cash discounts, rebates and returns all to the extent actually given in the trade by ATMI or its affiliates; (ii) sales, excise and similar taxes (including but not limited to any value added tax) or duties; (iii) insurance, packaging (except packaging that directly encloses the Products), and handling, shipping, transportation or similar; and (iv) credits or repayment for rejection or return of Products). If ATMI has suitable written records that reflect actually incurred direct costs (including but not limited to freight out, customs, duty, distribution and warehousing), ATMI may deduct such direct costs (up to an additional aggregate amount not to exceed [*]% of the gross sales proceeds for all Products during any reporting period) prior to computing the royalty on gross sales proceeds, even if such direct costs are not separately itemized to the customer. In the case that ATMI enables a Materials partner or a customer to make or sell a Product under license in exchange for a royalty to ATMI, the royalty payable by ATMI to IM for such use shall be calculated on the value of

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the Product used to calculate the royalty paid to ATMI ("***Product Value***"). For business arrangements between ATMI and Third Parties related to (i) Products for which the Product Value cannot be derived, or (ii) other ATMI monetization of technology derived through use of the Wets Workflow or HPC Technology not otherwise described herein, IM and ATMI agree to negotiate in good faith to set the compensation, if any, due to IM. Notwithstanding Section 12.16 of this Agreement, in the event that the parties cannot agree for a period of [*] after escalation to their respective chief executive officers to a reasonable compensation, the parties will use the procedure of Section 4.8.3 to determine compensation due to IM.

6.2 **Third Party Royalties**. Each party shall be responsible for all of its own costs of commercializing Products or licensing Intellectual Property Rights, including any payments to Third Parties for work done by such Third Parties or for licenses necessary for the manufacture, sale, or use of Products by a party or its Affiliates or sublicensees.

6.3 **Payment Method**. All payments due under this Agreement shall be made by bank wire transfer or ACH transaction in immediately available funds to a bank account designated by each party. All payments hereunder shall be from a U.S. entity and made in U.S. dollars. Any payments that are not paid within [*] of the date such payments are due under this Agreement shall bear interest at the lesser of (i) [*] percent [*] per month or (ii) the maximum rate permitted by law. Nothing in this Section 6.4 shall prejudice any other rights or remedies available to either party hereunder or at law or equity.

6.4 **Reports and Payments**. After the first commercial sale of a Product on which revenue share and royalties are payable by ATMI, ATMI shall make [*] written reports to the other party within [*] after the end of each calendar [*], stating in each such report, separately for itself and each Affiliate and each sublicensee, the number, description, and total sales of each Product sold, and a

calculation of the revenue share or royalties due as a result of license grants to customers, the manner of calculation of each to be specified in Section 6.1 Concurrently with the making of such reports, ATMI shall pay IM all amounts due as set forth in the report.

6.5 **Currency Conversions**. If any currency conversion shall be required in connection with the calculation of royalties hereunder, such conversion shall be made using the selling exchange rate for conversion of the foreign currency into U.S. Dollars, quoted for current transactions reported in The Wall Street Journal for the last business day of the calendar [*] to which such payment pertains.

6.6 **Records; Inspection**. Each party and its Affiliates shall keep complete, true and accurate books of account and records for the purpose of determining the royalty amounts payable under this Agreement. Such books and records shall be kept at the principal place of business of such party, as the case may be, for at least [*]

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following the end of the calendar [*] to which they pertain. Such records will be open for inspection during such [*] period by an independent auditor reasonably acceptable to the audited party, solely for the purpose of verifying royalty statements hereunder. Such inspections may be made no more than once each calendar year, at reasonable times and on reasonable notice. Inspections conducted under this Section 6.6 shall be at the expense of the auditing party, unless a variation or error producing an increase of at least [*] Dollars ($[*]) and exceeding [*] percent ([*]%) of the amount stated for any period covered by the inspection is established in the course of any such inspection, whereupon all reasonable costs relating to the inspection for such period and any unpaid amounts that are discovered will be paid promptly by the audited party together with interest thereon for late payments as set forth above. Each party agrees to hold in confidence all information concerning royalty payments and reports, and all information learned in the course of any audit or inspection, except to the extent necessary for each party to reveal such information in order to enforce its rights under this Agreement or if disclosure is required by law.

ARTICLE 7
CONFIDENTIALITY

7.1 **Confidentiality**. Except as otherwise expressly provided in the Mutual Non-Disclosure Agreement signed by the parties on December 6, 2005 for Confidential Information exchanged between the parties prior to the Effective Date, or as expressly provided in the Alliance Agreement, or as otherwise expressly provided herein, the parties agree that the receiving party shall not, except as expressly provided in this Article 7 disclose to any Third Party, or use for any purpose, any Confidential Information furnished to it by the disclosing party pursuant to this Agreement, except in each case to the extent that it can be established by the receiving party by competent proof that such information:

(a) was already known to the receiving party, other than under an obligation of confidentiality to the disclosing party, at the time of disclosure;

(b) was generally available to the public or otherwise part of the public domain at the time of its disclosure to the receiving party;

(c) became generally available to the public or otherwise part of the public domain after its disclosure and other than through any act or omission of the receiving party in breach of this agreement;

(d) was independently developed by the receiving party without use of, or reference to, the other party' s confidential information, as demonstrated by documented evidence prepared contemporaneously with such independent development; or

(e) was disclosed to the receiving party, other than under an obligation of confidentiality to the disclosing party, by a Third Party authorized and entitled to disclose such information to others.

Confidential Information shall not be considered within the above exceptions merely because the Confidential Information is embraced by more general

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information within the exceptions. Any combination of features of Confidential Information shall not be considered within the above exceptions merely because individual features, as opposed to the combination itself and its principles of operation, are within the exception.

7.2 **Permitted Use and Disclosures**. Notwithstanding the restrictions of Section 7.1, each party hereto may (a) use Confidential Information disclosed to it by the other to the extent necessary for that party to perform its obligations set forth in this Agreement and (b) use or disclose Confidential Information disclosed to it by the other party to the extent such use or disclosure is reasonably necessary in (i) exercising the rights and licenses granted hereunder, (ii) prosecuting or defending litigation pursuant to Article 8 (iii) complying with applicable laws, governmental regulations or court orders or submitting information to tax or other governmental authorities (including the Securities and Exchange Commission), (iv) preparing, filing and prosecuting patent applications pursuant to this Agreement, or (v) making a permitted sublicense or otherwise exercising license rights expressly granted pursuant to this Agreement; in each case, provided that if a party is required to make any such disclosure, other than pursuant to a confidentiality agreement, it will give reasonable advance notice to the other party of such disclosure and will use reasonable efforts to secure confidential treatment of such information (whether through protective order or otherwise), except to the extent inappropriate with respect to patent applications. It is understood that either party may also disclose the Confidential Information of the other party upon receipt of the written consent to such disclosure by a duly authorized representative of the other party. It is also understood that notwithstanding other provisions of this paragraph, neither party shall disclose trade secrets of the other party without first obtaining the written consent of the party owning such trade secrets and securing an agreement with the party to whom such disclosure will be made that such trade secrets will be treated as confidential for as long as such trade secrets qualify for protection as trade secrets. It is further understood that such trade secrets are not to be included in any patent, patent application, or other document that is accessible by individuals not subject to an agreement requiring that the individuals maintain such document in confidence. It is also understood that unless expressly required in this Agreement, neither party is obligated to disclose Confidential Information to the other.

7.3 **Nondisclosure of Terms**. Subject to Section 7.4, each of the parties hereto agrees not to disclose the terms of this Agreement to any Third Party without the prior written consent of the other party hereto, which consent shall not be unreasonably withheld, except to such party' s attorneys, accountants, advisors, investors and financing sources and their advisors and others on a need to know basis under circumstances that reasonably ensure the confidentiality thereof, to the extent required by law, in connection with the enforcement of this Agreement or rights under this Agreement or in connection with a merger, acquisition, financing transaction or proposed merger, acquisition or financing transaction, or the like.

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7.4 **Compliance with Public Company Disclosure Obligations**. Notwithstanding the provisions of Section 7.3, if a party is a Public Company (as defined below), such party may disclose from time to time such information regarding the terms of this Agreement and the scientific and other results of the Alliance as such party may reasonably deem to be necessary to comply with its disclosure obligations under applicable U.S. securities law or applicable stock market or NASDAQ Stock Market listing rules; provided,

however, that each party shall use commercially reasonable efforts to (i) nevertheless comply with its obligations as set forth in Section 7.3, or in the event such compliance is not possible, (ii) provide the other party with a draft of the disclosure intended to be made not less than twenty-four (24) hours prior to the intended first public release or filing of such disclosure. For purposes of this section, "Public Company" shall mean a company that is subject to the reporting requirements of either Section 13(a) or Section l5(d) of the Securities Exchange Act of 1934, as amended.

7.5 **Firewall Protection**. In addition to conforming to the confidentiality provisions in this Article 7, the following shall apply:

(a) IM will construct an IP firewall as described below in this Section around IM employees providing Services to ATMI in connection with any Wets Workflow described in the Purchase Documentation. Only such employees of IM will be allowed to have access to such ATMI confidential and proprietary information and information distribution will be based strictly on a need-to-know basis. Such employees of IM shall solely use such ATMI confidential and proprietary information in providing Services to ATMI. Physical copies of ATMI confidential and proprietary information shall be securely locked when not in use such that only those IM employees providing such Services shall have access to such information. The procedure set forth in this Section is not intended to supersede in whole or in part the terms of Section 4.8; specifically, IM shall have the right, without obligation to ATMI, to sell, license and sublicense any improvements, changes, or modifications to Equipment disclosed by ATMI to IM outside of the Formal Disclosure process.

(b) ATMI will construct an IP firewall as described below in this Section around ATMI employees who have access at IM' s facilities to HPC Technology outside of the Wets Workflow described in the Purchase Documentation. Only such employees of ATMI will be allowed to have access to such IM confidential and proprietary information and such information shall not be shared with other ATMI employees or Third Parties without the prior written consent of IM. Copies or samples of IM confidential and proprietary information shall not be removed or transmitted from any IM facility by ATMI employees.

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ARTICLE 8
REPRESENTATIONS, WARRANTIES, AND INDEMNIFICATION

8.1 **By ATMI**. ATMI represents and warrants that: (i) it has the right and authority to enter into this Agreement, and to fully perform its obligations hereunder; and (ii) this Agreement is a legal and valid obligation binding upon it and enforceable in accordance with its terms.

8.2 **By IM**. IM hereby makes the following representations and warranties:

8.2.1 Authority. IM has the right and authority to enter into this Agreement, and to fully perform its obligations hereunder.

8.2.2 Legal, Valid and Binding Obligation. This Agreement is a legal and valid obligation binding upon it and enforceable in accordance with its terms.

8.2.3 Intellectual Property Rights. IM owns, or possesses a valid and enforceable license to use (with ability to sublicense), all Intellectual Property Rights licensed or sublicensed to ATMI pursuant to this Agreement (for purposes of this Section 8.2.3, "IM Licensed IP"). IM has full power and authority to license or sublicense, as the case may be, all such Intellectual Property Rights licensed to ATMI upon the terms set forth herein, and to IM' s knowledge the use and practice of such Wets Workflow by ATMI in the Field pursuant to and in accordance with the terms of this Agreement ("Use") will not infringe the Intellectual Property Rights of any Third Party. IM agrees to defend and hold ATMI harmless from and against all

claims, losses, damages, judgments, awards, settlements, costs and expenses (including reasonable attorneys' fees) of, arising out of or resulting from any litigation or proceeding brought by a Third Party alleging infringement by the Wets Workflow (including any IM Licensed IP) or Use thereof, of a Third Party' s Intellectual Property Rights, provided that (i) ATMI notifies IM promptly in writing of the claim (provided, however, that the failure to promptly provide notice to IM will not affect IM' s duties or obligations under this Article 8 except to the extent IM is prejudiced thereby); and (ii) ATMI assists and cooperates reasonably with IM, at IM expense, in defending or settling such claim. IM shall have sole control of the defense and all related potential settlement negotiations, provided that IM shall not enter into any settlement which would materially adversely affect the rights granted to ATMI under this Agreement without ATMI' s express prior written consent. Notwithstanding the foregoing, IM shall have no liability for any claim of infringement based on or arising from the Alliance Technology, the Agreement WF Compounds or the use, sale, offer for sale, import license, or manufacture of Products or other technology sold or licensed by ATMI that is derived from the Wets Workflow. In addition, ATMI shall be entitled to be represented by ATMI' s own counsel at ATMI' s

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expense. In the event the Wets Workflow (including any IM Licensed IP) or Use thereof is held, or IM, in good faith and in its sole discretion, believes may be held, to infringe or misappropriate any Intellectual Property Rights of a Third Party, IM shall, at its sole expense, exercise whichever of the following two options it selects: (i) obtain a license to continue to use the Wets Workflow or IM Improvements without additional charge to ATMI; or (ii) modify the Wets Workflow or IM Improvements, or Use thereof, so they are non-infringing and meet the applicable Acceptance Criteria ("***Non-Infringing Modification***"). IM' s indemnification obligations shall cease if ATMI fails or refuses to implement any Non-Infringing Modification or if the Use is other than an intended Use set forth in Exhibit D. Notwithstanding anything to the contrary in this Agreement, IM provides no indemnification of claims that Third Party Software, other than Symyx Software, infringes Third Party Intellectual Property Rights if said claims do not allege that the infringement was caused by use of the Third Party Software in combination with other elements of the Wets Workflow. ATMI' s right to indemnification, if any, in connection with such claims shall be governed by its applicable Third Party end user license agreement. Moreover, claims alleging that the Symyx Software infringes Third Party Intellectual Property Rights shall be handled in accordance with Exhibit B rather than in accordance with this Section 8.2.3, except that IM' s liability for damages based on infringement by the Symyx Software shall be governed by Article 9 of this Agreement, which supersedes such limitations in Exhibit B (specifically **i**) paragraph 9 and ii) the last sentence of paragraph 8(b)). The foregoing indemnity states the sole obligations and exclusive liability of IM, and ATMI' s sole recourse and exclusive remedy for any Third Party claim of infringement or misappropriation of an Intellectual Property Right by IM under this Agreement.

8.3 **Limited Warranty on Equipment**. IM warrants to ATMI that for a period commencing on [*] and extending for [*] from final acceptance of the Equipment, the Equipment is free from defects in materials and workmanship and shall conform in all material respects to its Specifications. The warranty set forth in the prior sentence shall apply only to the IM- supplied components of the Equipment and specifically excludes those components supplied by ATMI. IM does not otherwise warrant the Equipment and does not warrant that operation of the Equipment will be uninterrupted or error free. If the Equipment does not meet the warranty specified above during the warranty period, IM shall, at its option, repair or replace at no cost to ATMI any defective or nonconforming Equipment component. Procedures and response times in connection with warranty claims under this Section 8.3, as well as IM' s obligations with respect to maintenance and support of Equipment, are set forth in Exhibit C.

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8.4 **Limited Warranty on Informatics Hardware**. IM warrants to ATMI that for a period commencing on [*] and extending for [*] from final acceptance of the Informatics Hardware, the Informatics Hardware shall be free from defects in materials and workmanship and shall conform in all material respects to its Specifications. The warranty set forth in the prior sentence shall apply only to the IM- supplied components of the Equipment and specifically excludes those components supplied by ATMI. IM does not otherwise warrant the Informatics Hardware and does not warrant that operation of the Informatics Hardware will be uninterrupted or error free. If the Informatics Hardware does not meet the warranty specified above during the warranty period, IM shall, at its option, repair or replace at no cost to ATMI any defective or nonconforming Informatics Hardware component. Procedures and response times in connection with warranty claims under this Section 8.4, as well as IM' s obligations with respect to maintenance and support of Informatics Hardware, are set forth in Exhibit C.

8.5 **Limited Warranty on Informatics Software**. IM warrants for a period of [*] from [*] of the Informatics Software to Licensee (and extending for each year that ATMI renews its license for the Informatics Software) that such Informatics Software as delivered, will function in conformity with its Specifications and the documentation supplied therewith. IM will use commercially reasonable efforts to correct any nonconformities reported to IM in writing or in electronic form during the warranty period. Procedures and response times in connection with claims under this Section 8.5, as well as IM' s obligations with respect to maintenance and support of Informatics Software, are set forth in Exhibit C.

8.6 **System Warranty**. IM warrants for a period of [*] from [*] of any Wets Workflow sold hereunder, and during any additional period during which ATMI renews, under the terms of this Agreement, its HPC Site License and HPC-Enabled Informatics Software license and Maintenance and Support for each Wets Workflow item, the Informatics Software for each Wets Workflow item, and the Informatics Hardware (such additional renewal periods must be continuous from the initial [*] term), that (i) the Wets Workflow items are compatible and will operate with one another as set forth in the Purchase Documentation, and (ii) the Wets Workflow will support the applications as set forth in Exhibit D. This warranty is in addition to IM' s other applicable warranties. IM does not otherwise warrant the Wets Workflow and does not warrant that its operation will be uninterrupted or error free. If the Wets Workflow does not meet the warranty specified above during the warranty period, IM shall, at its option, repair or replace at no cost to ATMI the nonconformity. Procedures and response times in connection with warranty claims under this Section 8.6, as well as IM' s obligations with respect to maintenance and support, are set forth in Exhibit C for the Equipment, Informatics Hardware and Informatics Software, provided that IM will promptly remedy any such nonconformity in 8.6(ii) above.

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8.7 **Warranty for Services**. IM will provide Services in a professional manner using reasonable care and skill and in accordance with standard industry practice and all applicable federal, state and local laws and regulations.

8.8 **Exclusions**. The warranties and remedies set forth in Sections 8.4, 8.5, 8.6, and 8.7 will be void as to (i) any Wets Workflow that has been damaged, modified, or altered (other than by IM or as authorized in writing by an officer of IM) unless ATMI can demonstrate by clear and convincing evidence that the alteration or modification did not cause the non-conformity in whole or in part, or (ii) non-conformities, in whole or in part, arising from use of the Wets Workflow with any other hardware, software, firmware, devices, or other products not provided by IM. IM shall provide no warranty with respect to any Wets Workflow to which IM has implemented ATMI Improvements and such ATMI Improvements caused such non-conformity unless the parties separately agree to such a warranty in writing.

8.9 **Disclaimer**. ATMI and IM specifically disclaim any representation, warranty or guarantee that the use of the Equipment, Informatics Software, Third Party Software, or Informatics Hardware, will be successful, in whole or in part. It is understood that the failure to successfully develop and commercialize any technology related to this Agreement shall not constitute a breach of any representation or warranty or other obligation under this Agreement. EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS

AGREEMENT, IM AND ATMI MAKE NO REPRESENTATIONS AND EXTEND NO WARRANTIES OR CONDITIONS OF ANY KIND, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THE TECHNOLOGIES DESCRIBED HEREIN OR INFORMATION DISCLOSED HEREUNDER, AND HEREBY EXPRESSLY DISCLAIM ANY WARRANTIES OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE, OR VALIDITY OF ANY TECHNOLOGY, PATENTED OR UNPATENTED, OR NON-INFRINGEMENT OF THE INTELLECTUAL PROPERTY RIGHTS OF THIRD PARTIES.

ARTICLE 9
LIMITATION OF LIABILITY

EXCEPT FOR A BREACH BY EITHER PARTY OF ITS CONFIDENTIALITY OBLIGATIONS UNDER ARTICLE 7 AND EXCEPT FOR BREACHES OF ANY LICENSE RESTRICTIONS, OR ANY PAYMENT OBLIGATIONS RESULTING FROM AN INDEMNIFICATION OBLIGATION HEREUNDER (INCLUDING EXHIBIT B), UNDER NO CIRCUMSTANCES WILL EITHER PARTY BE LIABLE TO THE OTHER, UNDER CONTRACT, STRICT LIABILITY, NEGLIGENCE OR OTHER LEGAL OR EQUITABLE THEORY, FOR ANY LOST REVENUE, LOST PROFITS, EQUIPMENT DOWN-TIME, OR FOR ANY INCIDENTAL, INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES OF ANY KIND IN CONNECTION WITH THE SUBJECT MATTER OF THIS AGREEMENT, EVEN IF ADVISED OF THE

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POSSIBILITY OF SUCH DAMAGES. EXCEPT FOR A BREACH BY EITHER PARTY OF ITS CONFIDENTIALITY OBLIGATIONS UNDER ARTICLE 7 AND EXCEPT FOR BREACHES OF ANY LICENSE RESTRICTIONS, OR ANY PAYMENT OBLIGATIONS RESULTING FROM AN INDEMNIFICATION OBLIGATION HEREUNDER(INCLUDING EXHIBIT B), IN NO EVENT WILL EITHER PARTY' S LIABILITY TO THE OTHER UNDER THIS AGREEMENT EXCEED THE GREATER OF (A) ONE MILLION DOLLARS ($1,000,000), (B) THE REMAINING BOOK VALUE FOR THE WETS WORKFLOW THAT IS THE SUBJECT OF THE CLAIM, AT THE TIME THE CLAIM IS MADE, AND (C) THE AMOUNTS PAID OR PAYABLE BY SUCH PARTY TO THE OTHER PARTY IN THE [*] MONTHS PRECEDING THE CLAIM.

ARTICLE 10
INSURANCE

IM shall at all times maintain the following types of insurance in the following minimum amounts with respect to its employees who are temporarily assigned to work on ATMI' s premises (other than the insurance in clause (ii), which IM will maintain in any event): (i) workers compensation in accordance with statutory limits; (ii) comprehensive general liability, including coverage for premises/ operations, products/completed operations and contractual liability: $[*] per occurrence (aggregate, bodily injury and property damage combined); and (iii) automobile liability: bodily injury and property damage: $[*] per occurrence. Upon request, IM shall deliver to ATMI a certificate of insurance evidencing that IM has the above insurance in full force and effect, naming ATMI as additional insured and containing a clause which provides that such policies will not be materially changed or cancelled without 30-days' prior written notice to ATMI.

ARTICLE 11
TERMINATION

11.1 **Term of Agreement**. The term of this Agreement shall commence on the Effective Date, and, unless terminated earlier as provided in this Article 10, shall continue in full force and effect until the termination of all HPC Site Licenses and HPC-Enabled Informatics Software Licenses granted under this Agreement.

11.2 **Termination**. (i) Either party to this Agreement may terminate this Agreement or a specific set of Purchase Documentation under this Agreement, in whole or in part, in the event the other party shall have materially breached or defaulted in the performance of any of its material obligations under that Purchase Documentation, and such default shall have continued for [*] after written notice thereof was provided to the breaching party by the non-breaching party. Any termination shall become effective at the end of such [*] period unless the breaching party (or any other party on its behalf) has

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cured any such breach or default prior to the expiration of such [*] period. In the event ATMI terminates a set of Purchase Documentation due to a material breach that is not cured per the above term prior to factory acceptance of a Wets Workflow (demonstrating compliance with the Acceptance Criteria, including the Supplemental Workflow Use Acceptance Criteria set forth in Exhibit D), IM shall promptly refund to ATMI any amounts paid pursuant to such Purchase Documentation (or in the event of a termination in part, the amounts paid for the item(s) that is the subject of the termination). (ii) Either party may terminate this Agreement without cause when there is no outstanding Purchase Documentation.

11.3 **Effect of Termination**. Except as provided in a specific set of Purchase Documentation hereunder all licenses under the Agreement or the terminated set of Purchase Documentation, as applicable, shall terminate, and IM and ATMI shall promptly return to the other all Confidential Information received from the other party related to this Agreement or the terminated set of Purchase Documentation, except (i) one copy of which may be retained for archival purposes, or (ii) to the extent that such Confidential Information is necessary to practice a continuing license or to which the other party obtained an ownership interest pursuant to Article 4; provided, however that the applicable party may, at its option, destroy any Confidential Information it is otherwise obligated to return and certify such destruction to the other party. Except as expressly provided herein, Section 4.15, and Articles 5, 6, 7,9 and 12, shall survive the expiration or termination of this Agreement for any reason.

ARTICLE 12
MISCELLANEOUS

12.1 **Governing Laws**. This Agreement and any dispute arising from the construction, performance or breach hereof shall be governed by and construed and enforced in accordance with the laws of the State of New York without regard to conflict-of-law principles that would result in the application of the law of any other jurisdiction.

12.2 **Assignment**. Neither party shall assign this Agreement, in whole or in part, without the prior written consent of the other party, which consent shall not be unreasonably conditioned, delayed or withheld; provided, however, that either party may assign this Agreement without such consent, to an Affiliate, or to a successor in interest to its business (whether by merger, acquisition, consolidation, change of control, reorganization or sale of substantially all of its assets) and the terms of the Agreement shall continue in effect without modification after such assignment, including without limitation the royalty provisions herein which shall be binding upon any permitted assignee. Any purported assignment without such consent shall be void and of no effect. Subject to the foregoing sentence, this Agreement will be binding on and inure to the benefit of the parties and their respective successors and permitted assigns.

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12.3 **No Implied License**. Only the licenses granted pursuant to the express terms of this Agreement shall be of any legal force or effect. No other license rights shall be created by implication, estoppel or otherwise. Each party reserves all rights not expressly granted to the other party under this Agreement.

12.4 **Representation by Legal Counsel**. Each party hereto represents that it has been represented by legal counsel in connection with this Agreement and acknowledges that it has participated in the drafting hereof. In interpreting and applying the terms and provisions of this Agreement, the parties agree that no presumption shall exist or be implied against the party that drafted such terms and provisions.

12.5 **Waiver**. It is agreed that no waiver by either party hereto of any breach or default of any of the covenants or agreements herein set forth shall be deemed a waiver as to any subsequent and/or similar breach or default.

12.6 **Non-Solicitation**. During the Term and for [*] thereafter, neither IM nor ATMI will individually, or in concert with or through any other person, actively recruit or solicit employment of any scientific or technical personnel of the other party. The foregoing restriction shall not apply to, or be breached by: (i) advertising open positions, participating in job fairs, and conducting comparable activities to recruit skilled or unskilled help from the general public, or responding to individuals contacted through such methods, (ii) responding to unsolicited inquiries about employment opportunities or possibilities from job placement agencies or other agents acting for unidentified principals, or (iii) responding to unsolicited inquiries about employment opportunities from any individual.

12.7 **Severability**. In the event that any provision of this Agreement becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Agreement shall continue in full force and effect to the fullest extent permitted by law without said provision, and the parties shall amend the Agreement to the extent feasible to lawfully include the substance of the excluded term to as fully as possible realize the intent of the parties and their commercial bargain.

12.8 **Independent Contractors**. The relationship of the parties hereto is that of independent contractors. The parties hereto are not deemed to be agents, partners or joint ventures of the others for any purpose as a result of this Agreement or the transactions contemplated thereby.

12.9 **Compliance with Laws**. In exercising its rights under the licenses granted hereunder, and in undertaking the activities outlined in this Agreement, each party shall fully comply in all material respects with the requirements of any and all applicable laws, regulations, rules and orders of any governmental body having

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jurisdiction over the exercise of rights under this Agreement including those applicable to the discovery, development, manufacture, distribution, import and export and sale of products based on technology developed pursuant to this Agreement.

12.10 **Export Control Regulations**. Without limiting the parties' obligations under Section 12.9 above, the rights and obligations of the parties under this Agreement, shall be subject in all respects to United States laws and regulations as shall from time to time govern the license and delivery of technology abroad. Without in any way limiting the provisions of this Agreement, IM and ATMI agree that each will not export, reexport, or transship, directly or indirectly, to any country, any of the technical data disclosed to it by the other party hereto if such export would violate the laws of the United States or the regulations of any department or agency of the United States Government. IM will notify ATMI if any Wets Workflow item is classified for export restriction.

12.11 **Patent Marking**. Each party agrees to mark and have their Affiliates and licensees mark all products sold or licensed pursuant to this Agreement in accordance with the applicable statute or regulations relating to patent marking in the country or countries of manufacture and sale thereof, and to notify the other party if it becomes aware that the marking of any such product is required.

12.12 **Notices**. All notices, requests and other communications hereunder shall be in writing and shall be hand delivered, or sent by express delivery service with confirmation of receipt, or sent by registered or certified mail, return receipt requested, postage prepaid, or by facsimile transmission (with written confirmation copy by registered first-class mail), in each case to the respective address or facsimile number indicated below.

IM:
2865 Zanker Road
San Jose, CA 95134
Attn: Chief Legal Officer
Fax: (408) 416-2301

ATMI:
7 Commerce Drive
Danbury, CT 06810
Attn: Chief Legal Officer
Fax: (203) 797-2544

Any such notice shall be deemed to have been given when received. Either party may change its address or facsimile number by giving the other party written notice, delivered in accordance with this section.

12.13 **Force Majeure**. Neither party shall lose any rights hereunder or be liable to the other party for damages or losses (except for payment obligations) on account of failure of performance by the defaulting party if the failure is occasioned by war, strike, fire, act of God, earthquake, flood, lockout, embargo, act of terrorism, governmental acts or orders or restrictions, or any other reason where failure to perform is beyond the reasonable control and not caused by the negligence, intentional conduct or misconduct of the non-performing party and such party has

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exerted all reasonable efforts to avoid or remedy such force majeure; provided, however, that in no event shall a party be required to settle any labor dispute or disturbance.

12.14 **Headings; Construction**. The captions to the several articles and sections hereof are not part of this Agreement, but are included merely for convenience of reference and shall not affect its meaning or interpretation. As used in this Agreement, the word "including" means "including without limitation."

12.15 **Counterparts**. This Agreement may be executed in counterparts, each of which shall be deemed to be an original and all of which together shall be deemed to be one and the same agreement.

12.16 **Dispute Resolution**. If a dispute arises between the parties relating to the interpretation or performance of this Agreement, representatives of the parties with decision-making authority shall meet to attempt in good faith to negotiate a resolution of the dispute prior to pursuing other available remedies. If such a meeting is requested, it must be held, unless the parties otherwise agree, within [*] calendar days from receipt of such request (the "Request"). If within [*] calendar days after such meeting the parties have not resolved such dispute, the Chief Executive Officers of both parties shall meet within [*] calendar days after the end of such [*] day period to discuss and attempt to resolve the dispute. If the parties have not resolved the dispute within [*] calendar days after the Request, either party may submit such dispute to final and binding arbitration, before a single, mutually-acceptable arbitrator, conducted in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("AAA"). If the parties are unable to select a mutually acceptable arbitrator, AAA shall appoint an arbitrator or provide a method for selection. Any arbitration proceedings shall be conducted in Phoenix, Arizona. The arbitrator shall determine what discovery will be permitted, consistent with the goal of limiting the cost and time that the parties must expend for discovery. Each party shall bear its own expenses, including attorneys' fees, and the parties will share equally the costs and fees of the arbitrator. The parties shall use all reasonable efforts to complete any arbitration subject to this section within [*] months from the filing of notice of a request for such arbitration. The parties agree that any award shall not include punitive damages and shall be consistent with the limitation of liability provisions set

forth in this Agreement. The arbitrator shall not have the power to add terms not contained in this Agreement or to refuse to enforce any term. Judgment upon any decision rendered by the arbitrator may be entered by any court having jurisdiction. The parties undertake and agree that all arbitral proceedings and all information, documentation, materials in whatever form disclosed in the course of such arbitral proceeding shall be deemed Confidential Information hereunder. Notwithstanding any of the foregoing, either party shall have the right to seek, at its own cost and expense, pre1iminary and temporary injunctive relief pending resolution of the dispute.

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12.17 **Entire Agreement**. This Agreement, together with all Exhibits hereto, constitutes the entire agreement and understanding of the parties relating to the subject matter hereof and supersedes all prior negotiations and understandings between the parties, both oral and written, regarding such subject matter.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

Intermolecular, Inc.	**Advanced Technology Materials, Inc.**
By: /s/ David Lazovsky	By: /s/ Doug Neugood
Name: David Lazovsky	Name: Doug Neugood
Title: President & CEO	Title: CEO & President
Date: 7/13/07	Date: 7/13/07

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EXHIBIT B

SYMYX SOFTWARE LICENSE AGREEMENT

Intermolecular, Inc. ("Licensor," or "we") Advanced Technology Materials, Inc. ("Licensee" or "you")

This Symyx Software License Agreement (this "SLA") between Licensor and Licensee is effective as of the Effective Date. For good and valuable consideration, the receipt and sufficiency of which we hereby acknowledge, we agree to the license terms below.

(1) License.

(a) We are duly authorized to sublicense to you the Symyx Software described in the Purchase Documentation ("Programs") in object code form only, and any operating instructions ("Documentation") delivered with the Programs, under our agreements with Symyx Technologies, Inc. and its subsidiaries ("Symyx"). We refer to the Programs and Documentation and any and all copies or modifications thereto collectively as the "Software." For the license term defined in the Quote (incorporated into this SLA by reference and incorporated herein by reference), we grant you a personal, non-exclusive and nontransferable right to install and use the Software.

(b) You may not edit, modify, change, reproduce (except as necessary to install and use) or create derivative works of the Software.

(c) This License is limited to the Site. Only your Named Users may use the Software at these facility(ies).

(d) We may add licenses to this SLA by issuing a Quote and receiving a Purchase Order.

(2) Other License Limitations.

(a) You may use the Software only for your sole and exclusive benefit as licensed hereunder, and agree not to use the Software to provide time-sharing or other similar services on behalf of third parties.

(b) You will not try to reverse engineer, decompile or disassemble any portion of the Software nor use any mechanical, electronic or other method to trace, decompile, disassemble, derive or identify the Software' s source code, or permit others to do so. You may make one copy of the Software for archival and back-up purposes only.

(c) You will not transfer, distribute, sell, lease, license or sublicense the Software to others (other than to Named Users as necessary to permit them to use the Software as this SLA permits).

(3) Term and Termination.

(a) This SLA begins on the Effective Date and continues until it is terminated. The initial license term is defined in the Purchase Documentation.

(b) Either party may terminate this SLA if the other party materially breaches this SLA and does not cure the breach as set forth in Section 11.2 of the Agreement.

(c) Any obligations, including payment obligations, which accrued prior to a termination or expiration will survive and must be met. All of your rights under this SLA end upon termination or expiration of this SLA. At termination or expiration of this SLA, or at termination or expiration of any particular licenses granted, you will immediately discontinue using the relevant Software, remove the relevant Programs from your equipment, and return to us all tangible copies of the relevant Software and any of our proprietary materials that you may have. Sections 1(b), 2, 3, 4, 6(b) and 6(d), 7, 8, 9, 10 and 11 survive termination or expiration of this SLA and/or your licenses.

(4) Payment.

(a) You agree to make all payments in accordance with the Agreement

(5) [Omit]

(6) Limited Warranty.

(a) We represent and warrant to you that:

(i) the Software contains no malicious code, program or other internal component (e.g., computer virus, worm, time bomb, or similar component) designed to disable, deinstall, deactivate, damage or destroy the Software or other computer programs or

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data or information the Software accesses or processes;

(ii) the computer diskettes or other media we use to deliver the Software to you will have no materials or workmanship defects under normal use; and

(iii) the Software will function in accordance with its specifications.

(b) If we breach Section 6(a), we will use commercially reasonable efforts to correct the error(s) or replace the affected Software at our expense. However, if the Software fails to meet the warranties in Section 6(a) because you have altered or modified it or used it in an unauthorized way, we will not be obligated to correct or replace the Software.

(c) Except as provided in Section 6(a), WE MAKE NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. CERTAIN VERSIONS OF OUR SOFTWARE MAY INCLUDE BETA CODE AND MAY BE CHANGED SUBSTANTIALLY BEFORE COMMERCIAL RELEASE. WE DO NOT WARRANT THAT THE SOFTWARE WILL MEET YOUR REQUIREMENTS OR PERFORM UNINTERRUPTED OR ERROR FREE.

(7) Proprietary Rights.

(a) We and our licensors own all rights to and in (i) the Software, including copyright, patent, trademark and trade secret rights, (ii) each copy of the Software, and (iii) all customizations, enhancements, modifications and new code we deliver to you pursuant to this SLA. We reserve all rights to the Software we have not specifically granted to you under this SLA.

(b) You agree not to remove, obscure or alter our copyright notices, trademarks, patent numbers or other proprietary rights notices affixed to or contained within the Software.

(8) **Indemnification.**

(a) If someone takes legal action against you claiming the Software infringes their patent, copyright or trade secret rights in a jurisdiction where you are licensed to use the Software pursuant to the Agreement, we will defend on that claim at our expense, and will pay any costs, damages and reasonable attorneys' fees finally awarded as a result of a settlement or judgment against you, but only if you give us prompt and timely written notice of the claim and relevant proceedings. If you do not give us prompt written notice, and your failure to be prompt materially and negatively affects our defense, then we will not have to defend or indemnify you to the extent we are actually and materially prejudiced by the delay. We will control the defense and settlement, if any, of the claim, and you agree to cooperate with us at our expense by providing prompt and necessary authority, information and reasonable assistance to enable us, at our option, to settle or defend such claim. You may, however, participate in defending the claim using your own attorneys and at your own expense.

(b) If (i) the rights owner described in Section 8(a) obtains an injunction against you and you thus cannot use the Software as licensed, or (ii) we believe an injunction may occur, we will, at our sole option, exercise the first of the following that is practicable (A) modify the Software so it does not infringe while maintaining substantial functional equivalence, or (B) obtain a license that permits you to continue using the Software at no additional cost to you. If we notify you Symyx has informed us that it has not found a commercially reasonable way to do either (A) or (B)any continued use you make of the Software shall be at your sole risk.

(c) We do not have to defend or indemnify you under this Section 8 if and to the extent: (i) the alleged infringement arises because you are using the Software in combination with any other software, data products, processes or materials we did not provide or approve in writing; (ii) you continue allegedly infringing activity after we provide modifications at no charge to you that would have avoided the infringement and that do not materially impact the functionality of the Software; (iii) the alleged infringement arises because you use

the Software other than in accordance with our license grant; (iv) the alleged infringement arises because you have modified the Software in a way we did not expressly authorize in writing; or (v) we have delivered a newer version of the Software that would not infringe,

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and you choose to continue using an earlier, infringing version.

(d) Licensee shall defend, indemnify, and hold Licensor harmless against any claim against Licensor by a third party to the extent resulting from Licensee' s use of Software in the manner described in any of Section 8(c)(i)-(v) above, and pay any costs, damages and reasonable attorneys' fees finally awarded against Licensor or included in a settlement approved by Licensee in connection therewith.

(9) **Liability Limitations.** You are responsible for: (a) the accuracy and adequacy of information and data furnished for processing; and (b) any use you make of or reliance you or others place on the Software' s output. You are also responsible for your own computer equipment and third-party software used with the Software, and should follow all of the respective licensors' , vendors' and manufacturers' operational, environmental and maintenance guidelines. WE WILL NOT IN ANY EVENT BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL, EXEMPLARY OR PUNITIVE DAMAGES UNDER THIS SLA, INCLUDING LOST BUSINESS, WORK DELAYS, LOSS OF USE, RESULTS OF USE OR DATA INACCURACY, OR COST OF PROCUREMENT OF SUBSTITUTE GOODS, SERVICES OR TECHNOLOGY, LOST PROFITS, WHETHER FORESEEABLE OR NOT, REGARDLESS OF WHETHER WE HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT SHALL OUR ENTIRE LIABILITY ARISING OUT OF THIS SLA EXCEED THE SUMS YOU HAVE PAID FOR THE PROGRAMS.

(10) **Confidentiality**. The exchange of any Confidential Information shall be in accordance with the Agreement.

(11) Miscellaneous.

(a) The Software, any media on which it is delivered, and any other technical assistance and data we deliver under this SLA are subject to U.S. export control laws and may be subject to export or import regulations in other countries. The parties shall each comply strictly with all such laws and regulations. We represent that the Software has been classified as ECCN5D002.

(b) This SLA and the Purchase Documentation are entire, final and exclusive agreement between us and supersedes all other prior or contemporaneous oral or written representations, agreements or other communications between us relating to the subject matter of this SLA. We can only amend or modify this SLA in an amendment we both sign.

(c) If either of us fails to exercise any right in this SLA, that right is not waived or forfeited.

(d) New York law governs this SLA, without regard to its choice of law provisions.

(e) This SLA supersedes any provisions of the Uniform Computer Information Transactions Act which may otherwise apply to the maximum extent applicable laws allow.

(f) If the parties cannot settle a dispute under this SLA amicably, it shall be handled in accordance with Section 12.16 of the Agreement.

(g) Each party is excused from performance prevented by, and are not liable for any delay caused by, contingencies beyond its reasonable control or its supplier' s reasonable control. These contingencies include war, sabotage, terrorism, insurrection, riot or

other act of civil disobedience, act of public enemy, act of any government affecting the terms hereof, accident, fire, explosion, flood, severe weather or other acts of God.

(h) Neither party is the agent, employee, legal representative, partner or joint venturer of the other for any purpose whatsoever, and neither party can act for or on behalf of the other.

(i) You may not assign, transfer or hypothecate this SLA and the rights, interests, benefits, duties and obligations hereunder without our prior written consent, and any attempt to do so is void. This SLA binds and benefits each party and its respective heirs, executors, administrators, successors and permitted assigns.

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SCHEDULE 1 to Exhibit B
Symyx Software Maintenance Terms

1. SUPPORT SERVICES.

We will use commercially reasonable efforts during the term to provide the maintenance and support services described in this Schedule for the Symyx Software you have under annual licenses from us or on which you have paid maintenance fees. IM' s response times as set forth in Exhibit C shall apply for 1st Tier Support for the Software. (As used in this Schedule, 1st Tier Support means providing support based on information available in the user manual, and determining that the issue the customer is having relates to a supported feature of the product and that it cannot be resolved by following the procedures set forth in the documentation.) Sections 2, 3, and 4, below, state the commitments Symyx has made to IM regarding support beyond 1st Tier Support, and we will use reasonable efforts to enforce such commitments. Under appropriate circumstances, IM will request and use good faith efforts to obtain more urgent support from Symyx.

2. SUPPORT RESPONSIBILITY.

a) Error Reporting. We will provide you telephone support during our normal business hours of 9:00 am to 5:00 p.m. Pacific time, Monday through Friday, excluding our holidays.

You should include in each error report sufficient information to enable us to reproduce and verify the suspected error. If you do not supply this information, it will delay our response. We will acknowledge each reported error via telephone, facsimile transmission or electronic mail to your Support Contact within twenty-four (24) hours of its original report, and will use commercially reasonable efforts consistent with the severity of the error to reproduce and verify reported errors and provide Updates (including workarounds) in accordance with the terms set forth herein. You agree to use commercially reasonable efforts to assist us in our efforts to find corrections to confirmed errors you report. We will use our best judgment to determine the priority level of each reported error according to the following criteria:

i) Priority 1 Error: Critical problem with significant business impact to you. No viable workaround, but you need an immediate fix or workaround to get up and running again.

ii) Priority 2 Error: Critical problem with significant business impact to you. A viable workaround exists, you need a fix other than a workaround, but can wait until next scheduled Update.

iii) Priority 3 Error: Problem identified with moderate business impact to you, but you can wait until a future Upgrade for a fix.

b) Response Times.

i) Priority 1 Error. We will use commercially reasonable efforts to promptly resolve the error with an Update. We will give you periodic reports on the status of relevant Updates.

ii) Priority 2 Error. We will use commercially reasonable efforts to include an error correction in the next Update, if any, of the Software.

iii) Priority 3 Error. We will use commercially reasonable efforts to include an error correction in the next Upgrade, if any, of the Software.

c) Support Obligation. We are not required to support or maintain any version of the Software except its then-current, commercially released version, and the version released immediately before that version.

3. **UPDATES, UPGRADES.**

"Update" means a subsequent version of the Software we release generally to our end user customers that includes error corrections, bug fixes or workarounds to ensure that the Software performs according to its specifications. "Upgrade" means a revision of the Software we release generally to our end user customers receiving maintenance and support services that adds new and different functions or enhancements. Updates and Upgrades we provide to you are deemed "Software" under the SLA.

We will provide you Updates and Upgrades if, as and when we make any such Updates and/or Upgrades generally available to our end user customers receiving maintenance and support services. You agree that, except as expressly provided in Sections 2(a) and 2(b) above, we are not obligated to issue Updates and/or Upgrades and that we must provide you Updates and/or Upgrades only when we have commercially released them to our customers generally. We provide installation and training for Updates and Upgrades on a time and materials basis.

4. **SOFTWARE NOT COVERED BY THIS SCHEDULE.**

A. Altered or modified Software.
B. Any combination of Software with other software not covered by this Maintenance Agreement.
C. Errors caused by your negligence or fault.
D. Errors resulting from hardware malfunction.
E. Software used on a computer or operating system other than systems we specify.

5. **ADDITIONAL SERVICES AND CHARGES.**

We may charge for services outside of the range of normal support services, such as (1) debugging application coding errors in your applications, (2) debugging problems in non-Licensor-supported products, or in combinations of supported and non-supported products where the problem occurs in the non-Licensor product, and (3) other cases where we judge it highly likely that the suspected problem is not our responsibility. We will advise you in advance when we believe services are likely to fall outside of the range of supported services, and give you our

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estimates of the likely charges. IF we find that the problem is, indeed, caused by a supported product, you will incur no additional charges. However, if the problem is not our responsibility, we will charge you at the rates specified in the estimate/service agreement.

6. **TERM AND TERMINATION.**

This Maintenance Schedule covers any licensed Programs as long as you continue to purchase the Maintenance and Support for the Symyx Software.

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Exhibit C: IM Maintenance and Support Services

I. General Terms

A. Services Provided During First Year and During Any Renewal Term

Section II of this Exhibit C describes maintenance and support services that IM shall provide with respect to any Wets Workflow sold pursuant to this Agreement. IM shall provide maintenance and support services throughout the initial term for maintenance and support, which shall commence upon delivery to ATMI of the Wets Workflow and continue until the first anniversary of final acceptance of the Workflow (the "Initial Maintenance and Support Term").

IM shall continue to provide said services during any additional term during which IM provides maintenance and support services (each one a "Renewal Maintenance and Support Term") in accordance with the procedure set forth in Section I B., below. Each Renewal Maintenance and Support Term for a Wets Workflow shall consist of a one-year period; the first Renewal Maintenance and Support Term shall commence the day following the last day of the Initial Maintenance and Support Term; any subsequent Renewal Maintenance and Support Terms shall commence on the anniversary of the first day of the first Renewal Maintenance and Support Term.

Nothing in this Exhibit C shall reduce IM' s warranty obligations set forth in the Agreement.

B. Term of Maintenance and Support; Renewal

IM shall provide the maintenance and support services set forth in Section II of this Exhibit C throughout the Initial Maintenance and Support Term. Not less than ninety (90) days prior to the conclusion of the Initial Maintenance and Support Term, IM shall send ATMI written notice of the date that the Initial Term is scheduled to expire, together with a Quote for maintenance and support services for the first Renewal Term.

If ATMI thereupon provides IM with an acceptable Purchase Order in connection with the Quote, IM shall invoice ATMI in accordance with Section 5.1 of the Agreement, and provide maintenance and support services as set forth in Section II, below, for the first Renewal Term. Not less than ninety (90) days prior to the end of any Renewal Period, IM shall provide ATMI with notice specifying whether IM intends to continue to offer maintenance and support services for the Wets Workflow in question; if so, IM shall specify the price for maintenance and support for the next Renewal Term.

Notwithstanding the foregoing, the price for maintenance and support services for June 26, 2007 the first and second Renewal Terms are set forth in Exhibit A to the

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Agreement. The price for maintenance and support services for any subsequent Renewal Term shall be as mutually agreed by IM and ATMI.

C. Special Services Provided Only During First Year

In addition to the maintenance and support services described above, during the one-year period following Final Acceptance of the first Wets Workflow sold hereunder, IM shall also make available one (1) product support engineer who will provide services, including but not limited to training, support or maintenance, to ATMI in the operation of the Wets Workflow.

D. Modified or Altered Wets Workflow

The obligation to provide maintenance and support services hereunder will be void as to (i) any Wets Workflow that has been damaged, modified, or altered (other than by IM or as authorized in writing by an officer of IM), unless ATMI can demonstrate by clear and convincing evidence that the modification or alteration did not cause the non-conformity, in whole or in part, (ii) nonconformities, in whole or in part, arising from use of the Wets Workflow with any other hardware, software, firmware, devices, or other products not provided by IM, or (iii) Equipment or Informatics Hardware that has been subjected to unusual physical, chemical or electrical stress, or that has been operated without regard to any limitations defined in the Equipment Specifications.

E. Error Classification and Response Times

The following terms shall apply with respect to support for Equipment, Informatics Hardware, and/or Informatics Software:

(i) Error Classification

(a) Priority 1 Error: System down with critical business impact to ATMI. No viable workaround, but ATMI needs an immediate fix or workaround to get up and running again.

(b) Priority 2 Error: Critical problem with significant business impact to ATMI. A viable workaround exists, but ATMI needs a fix other than a workaround.

(c) Priority 3 Error: Problem identified with moderate business impact to ATMI for which a workaround may be adequate.

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(ii) Response Times.

(a) Priority 1 Error. IM shall provide and maintain for ATMI contact and escalation procedures for ATMI personnel to reach an appropriate IM employee as follows:

i. From 8 a.m. to 12 midnight Eastern time, IM shall acknowledge the ATMI call within three (3) hours of ATMI initiating the process of contacting IM;

ii. From 12 midnight to 8 a.m. Eastern time, IM shall acknowledge the ATMI call by 8 a.m. Eastern time, or within three (3) hours of ATMI initiating the process of contacting IM, whichever is later;

iii. If ATMI requires faster response during a defined time period, e.g. during a critical demo, IM shall make a best effort to put in place a shorter response time, if ATMI has provided reasonable notice prior to that defined time period.

Upon acknowledging a Priority 1 Error, IM shall provide ATMI an initial assessment within twelve (12) hours and an error resolution plan within eighteen (18) hours. IM will use best commercial efforts to promptly resolve the error through an Update, or through the implementation of a viable workaround, or through any other means that provides the fastest time for ATMI to be up and running again. IM will give ATMI periodic reports, or immediately upon ATMI' s request, on the status of relevant error resolution plans and activities.

(b) Priority 2 Error. Upon acknowledging a Priority 2 Error, IM shall provide ATMI an initial assessment within 2 business days and an error resolution plan within 3 business days. IM will use best commercial efforts to (i) include an error correction in the next Update, if any, of the Software and/or (ii) to schedule and execute in a timely fashion error resolution activities for Informatics Hardware or Equipment.

(c) Priority 3 Error. Upon acknowledging a Priority 3 Error, IM shall provide ATMI an initial assessment within 3 business days and an error resolution plan within 5 business days. IM will use best commercial efforts to (i) include an error correction in the next Update, if any of the Software, and/or (ii) to implement in a timely fashion a workaround and/or schedule and execute error correction activities for Informatics Hardware or Equipment.

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II. Maintenance and Support Services

A. Informatics Hardware and Equipment Support

IM shall use best commercial efforts to do the following during the Initial Maintenance Support Term, and during any Renewal Maintenance and Support Term:

(a) IM shall maintain the Equipment and Informatics Hardware in the Wets Workflow in accordance with the warranty set forth in the Agreement. Service may also include scheduled preventative maintenance, as determined by IM. Remedial maintenance will be provided by IM during normal working hours when notified by ATMI that the Wets Workflow is inoperable. IM customer service may be initiated by calling 408-416-2300 (or such other number or email provided to ATMI for that purpose) between the hours of 9:00 a.m. and 5:00 p.m., Pacific time, Monday through Friday, excluding IM holidays (or such other hours and days as may be mutually agreed to by the parties, from time to time, or for Priority 1 Errors, as specified in I.E., above).

(b) Maintenance will include replacement of parts deemed necessary by IM. ATMI must inform IM if any replaced parts may be contaminated with hazardous or toxic materials. All parts may be furnished on an exchange basis and will be new or equivalent to new. Replaced parts removed from the Equipment or Informatics Hardware shall, at IM' s sole option, become

the property of IM. All customer consumable items, including but not limited to wafers, vials, chemicals, are excluded from coverage hereunder.

(c) Exclusions: Maintenance service is contingent upon the proper use of all Equipment and Informatics Hardware, and does not cover Equipment or Informatics Hardware that has been damaged, modified, or altered as described in I.D. above. IM shall be under no obligation to furnish maintenance service if (i) adjustment, repair or parts replacement is required because of operator-caused error or repeated misuse of Equipment or Informatics Hardware; (ii) the Equipment or Informatics Hardware is repaired or if attempts to repair or service the equipment are made by other than authorized IM personnel, without the prior written approval of IM; (iii) a non-conformity arising from or after relocation of the Equipment or Informatics Hardware without prior written approval of IM, which shall not be unreasonably withheld, unless ATMI can demonstrate by clear and convincing evidence that the relocation did not cause the non-conformity, in whole or in part; (iv) the Equipment or Informatics Hardware is damaged through the use of hardware consumables that IM has not previously recommended or approved, unless ATMI can demonstrate by clear and convincing evidence that the use of such consumables did not cause the damage, in whole or in part. Maintenance service does not include damage from acts of God, such as fire, flood, or earthquakes. All repairs required by such excluded

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damage will be subject to an additional charge, as agreed in advance in writing by IM and ATMI.

(d) ATMI shall provide full and free access to the Equipment and Informatics Hardware as needed to perform any services to be provided hereunder, subject to ATMI' s reasonable policies and procedures. ATMI acknowledges that employees or contractors of Symyx Technologies, Inc., may be providing services hereunder with respect to Equipment manufactured by Symyx.

B. Informatics Software Support

1. IM shall use best commercial efforts to do the following during the Initial Maintenance and Support Term and during any Renewal Maintenance and Support Term:

(a) IM shall maintain the Informatics Software in accordance with the warranty set forth in the Agreement. ATMI shall provide VPN site to site Internet access to the data network located at 6 Commerce Drive, Danbury, CT. ATMI will fund the data circuits located in the ATMI data center and IM will fund the data circuits located in its data center. ATMI shall institute and document, prior to installation of the Informatics Hardware, and maintain thereafter, a reasonable firewall management policy to enable appropriate access and block unneeded access to the Informatics Software and Third Party Software installed on Informatics Hardware as needed to diagnose any problem or perform any services to be provided hereunder, subject to the provisions of Section 7.5 (IP Firewall) of the Agreement. The response times and procedures set forth above shall not apply for any error or problem if limits on IM' s access to the Informatics Software inhibit IM' s ability to conduct an initial assessment, make a diagnosis, provide an error resolution plan, and/or perform any services related to resolution of that error or problem.

(b) ATMI may request services by calling 408-416-2300 (or such other number or email provided to ATMI for that purpose) between the hours of 9:00 a.m. and 5:00 p.m., Pacific time, Monday through Friday, excluding IM holidays, (or such other hours and days as may be mutually agreed to by the parties, from time to time, or for Priority 1 Errors., as specified in I.E., above).

(c) ATMI should include in each error report sufficient information to enable IM to reproduce and verify the suspected error. Failure to supply this information may delay IM' s response. IM will acknowledge each reported error via

telephone, facsimile transmission or electronic mail to the Named User reporting the error within twenty-four (24) hours of its original report, and will use commercially reasonable efforts consistent with the severity of the error to reproduce and verify reported errors and provide Updates

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(including workarounds) in accordance with the terms set forth herein. ATMI agrees to use commercially reasonable efforts to assist IM in its efforts to find corrections to confirmed errors ATMI reports. IM will use its best judgment to determine the priority level of each reported error according criteria set forth in Section I.E.

(d) Support Obligation. IM is not required to support or maintain any version of the Software except its then-current, commercially released version, and the version that immediately preceded that version. For such immediately preceding software version, IM shall use commercially reasonable efforts to provide error-fixing updates, but shall have no obligation to provide upgrades that improve the functionality of that software version.

2. The following software is not covered by this schedule:

A. Altered or modified Informatics Software
B. Any combination of Informatics Software with other software or hardware not supplied pursuant to the Agreement
C. Errors caused by ATMI' s negligence or fault
D. Software used with hardware other than Equipment or Informatics Hardware
E. Errors in Third Party Software

3. IM is not obligated to provide free of charge services outside of the range of normal support services, such as (1) debugging problems in non-IM-supported software or products, or in combinations of supported and non-supported software or products where the problem occurs in products or software not supplied by IM, and (2) other cases where IM reasonably judges it highly likely that the suspected problem is not its responsibility. IM will advise ATMI in advance when IM believes services are likely to fall outside of the range of supported services, and may give ATMI an estimate of the likely charges. If IM finds that the problem is, indeed, caused by a supported product, ATMI will incur no additional charges. However, if the problem is not IM' s responsibility, IM will charge ATMI at the rates specified in the estimate/service agreement.

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Schedule D − Supplemental Specifications For Factory Acceptance

Application	Chemistry	Process	Objective	Description
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Supplemental Tool

Specifications	[*]	[*]	[*]
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Supplemental Tool

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Addendum to Wets Workflow Purchase Agreement

This Addendum (the "Addendum") to the Wets Workflow Purchase Agreement (the "Agreement"), effective as of December 21, 2007, or, if left blank, the last date of signature by a party hereto (the "***Addendum Effective Date***"), is made by and between Advanced Technology Materials, Inc., with a principal place of business at 7 Commerce Drive, Danbury, CT 06810 ("***ATMI***"), and Intermolecular, Inc., with a principal place of business at 2865 Zanker Road, San Jose, California 95134 ("***IM***"). ATMI and IM are sometimes referred to herein individually as a "party" and collectively as the "parties." Capitalized terms in this Addendum have the meaning assigned to them in the Agreement, unless otherwise separately defined herein.

BACKGROUND

IM and ATMI entered into the Agreement effective July 13, 2007. The parties now wish to engage in a strategic alliance between the parties, define terms and conditions that will be applicable to the sale of three additional Wets Workflows, and define further the parties' respective rights and obligations with respect to certain Strategic Accounts in certain Strategic Fields. IM will issue warrants to ATMI as set forth below in this Addendum.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as set forth below.

ARTICLE 1
ADDITIONAL DEFINITIONS

1.1 "***Strategic FTE***" means a full-time employee or contractor dedicated to supporting the use of Wets Workflow(s) purchased pursuant to the Agreement and/or this Addendum, or a Wets Workflow to which access has been granted pursuant to Section 3.2 of this Addendum, or, in the case of less than full-time dedication, a full-time equivalent person-year, based on approximately [*] hours per year of work, on or related to a Strategic Account in a Strategic Field.

1.2 "***Strategic Accounts***" shall mean the following: [*] and [*]. The parties may mutually agree in writing to modify the Strategic Accounts at a later date; however, such agreement can be withheld in the sole discretion of either party.

1.3 "***Strategic Fields***" shall mean the [*] Wets Processing applications defined in Appendix A to this Addendum. The parties may mutually agree in writing to modify the Strategic Fields at a later date; however, such agreement can be withheld by either party in its sole discretion.

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

ARTICLE 2
WETS WORKFLOW PURCHASES

2.1 **Second Wets Workflow Purchase**. Upon the mutual execution of this Addendum, ATMI shall execute a separate Purchase Order for the Wets Workflow identified in Quote #2 attached to the Agreement as Exhibit A-1, modified as shown in Appendix B attached hereto, and incorporated herein by reference ("***Modified Quote #2***"). Said Purchase Order shall be consistent with the terms of Modified Quote #2. Said Purchase Order and Modified Quote #2 shall be deemed to be incorporated into the Agreement as Exhibit A-1. The Acceptance Criteria for said Wets Workflow identified in Appendix B shall be the same as set forth in the Purchase Documentation in Exhibits A and D to the Agreement; said Acceptance Criteria shall also hereby be deemed to be incorporated into the Exhibit A-1 Purchase Documentation. IM shall deliver said Workflow to ATMI as set forth in Modified Quote #2.

2.2 **Third Wets Workflow Purchase**. Upon the mutual execution of this Addendum, ATMI shall execute a separate Purchase Order for the Wets Workflow identified in Quote #3, attached to this Addendum as Appendix C, and incorporated herein by this reference. Said Purchase Order shall be consistent with the terms of Quote #3. Said Purchase Order and Quote #3 shall be deemed to be incorporated into the Agreement as Exhibit A-2. The Acceptance Criteria for said Wets Workflow identified in Quote #3 shall be the same as set forth in the Purchase Documentation in Exhibits A and D of the Agreement; said Acceptance Criteria shall also hereby be deemed to be incorporated into the Exhibit A-2 Purchase Documentation. IM shall deliver said Workflow to ATMI as set forth in Quote #3.

2.3 **Fourth Wets Workflow Purchase**. Upon the mutual execution of this Addendum, ATMI shall execute a separate Purchase Order for the Wets Workflow identified in Quote #4, attached to this Addendum as Appendix D, and incorporated herein by this reference. Said Purchase Order shall be consistent with the terms of Quote #4. Said Purchase Order, and Quote #4, shall be deemed to be incorporated into the Agreement as Exhibit A-3. The Acceptance Criteria for said Wets Workflow identified in Quote #4 shall be the same as the Acceptance Criteria set forth in the Purchase Documentation in Exhibits A and D of the Agreement; said Acceptance Criteria shall also hereby be deemed to be incorporated into the Exhibit A-3 Purchase Documentation. IM shall deliver said Workflow to ATMI as set forth in Quote #4.

2.4 **Third Party Workflow Placement**. If any of the above Wets Workflows are placed at a location of and/or operated by a Third Party, then either (i) the Third Party shall sign an agreement with IM containing licensing and royalty terms consistent with the existing Agreement between IM and ATMI, or (ii) ATMI and IM will determine at that time how to proceed, provided that the license and royalty terms will be the same as those set forth in the Agreement with ATMI.

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2.5 **Warranty**. NO ADDITIONAL REPRESENTATION, WARRANTY, OR INDEMNIFICATION IS HEREBY PROVIDED BY IM OR ATMI OTHER THAN AS EXPLICITLY SET FORTH IN THE AGREEMENT.

ARTICLE 3
STRATEGIC FTEs, PLAN AND WORKFLOW ACCESS

3.1 **Dedicated Personnel**: IM shall provide [*] Strategic FTEs to provide services to ATMI, the nature of the services to be mutually agreed by the parties, to support the Strategic Accounts in connection with the Strategic Fields on the schedule set forth in this Section 3.1 ("Addendum Services"). The parties may mutually agree in writing to increase the number of Strategic FTEs provided by IM and paid for by ATMI if the number of Strategic Fields increases or the expected workload increases at a later date; however, such agreement can be withheld by either party in its sole discretion. Addendum Services will be provided in the manner consistent with Section 8.7 of the Agreement with the same rights and remedies set forth therein.

IM shall invoice and ATMI shall pay for [*] Strategic FTEs starting on January 1, 2008 and [*] additional Strategic FTEs starting upon Factory Acceptance of the first Element of each of the Second through Fourth Wets Workflows. If ATMI elects to terminate the Purchase Documentation for the Fourth Wets Workflow as set forth in Quote #4, then IM may invoice for and ATMI shall pay the [*] Strategic FTEs associated with the Fourth Wets Workflow as of the Target Delivery Date for that Wets Workflow.

Table I. Projected Starts Per Quarter for IM Strategic FTE' s

Period	Q1 2008	Q2 2008	Q3 2008	Q4 2008	Total Strategic FTEs
Strategic FTE' s	[*]	[*]	[*]	[*]	[*]

The Strategic FTEs shall continue to provide Addendum Services under this Addendum to ATMI in connection with the Strategic Accounts until [*]. ATMI shall pay IM for said FTEs at the rate of [*] US dollars (US$[*]) per FTE per month. IM will invoice monthly for the Addendum Services and payment terms shall be as set forth in the Agreement. Upon the mutual execution of this Addendum, AMTI shall issue a purchase order to IM for the total fees for Addendum Services scheduled to be rendered under this Section 3.1.

3.2 **Access to IM Workflow**. IM shall be responsible for providing the IM resources described in Section 3.1 with access to a Wets Workflow that is substantially equivalent to the Wets Workflow described in Modified Quote #2 in IM' s clean

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room in San Jose, California to support activities in the Strategic Fields for the Strategic Accounts pursuant to this Addendum until [*]. This support shall include access to IM' s metrology and characterization infrastructure (i.e., physical and electrical test equipment) for that period.

3.3 **Strategic Plan**. It is the intent of the parties through this Addendum to work together to drive adoption of ATMI Products for each Strategic Field in each Strategic Account through the use of HPC Technology, specifically the Wets Workflows. To further that intent, the parties agree to develop a materials, process and process integration development and qualification plan for each Strategic Account in each Strategic Field (each a "**Strategic Plan**"). The Strategic Plans will (a) define the priority of the Strategic Fields at each Strategic Account, (b) define a joint sales and marketing strategy for each Strategic Account, and (c) define the IM and ATMI resources, equipment, and other development resources necessary to execute on each Strategic Plan. The Strategic Plans will be created on the following schedule: [*] and [*] within [*] of the Addendum Effective Date, [*] and [*] no later than the Target Ship Date for the Second, Third and Fourth Wets Workflow, respectively, irrespective of ATMI' s decision to substitute a Dry Workflow for the Fourth Wets Workflow as set forth in Quote #4. A Strategic Plan may be modified based on the mutual written consent of the parties. In addition, each party agrees to discuss, as permitted, circumstances external to this Addendum that may have an effect on each Strategic Plan, provided, however, that the decision whether a party may or does discuss such business opportunities shall be made in its sole discretion. Nothing in this Section 3.3 changes the right, restrictions and obligations, including Wets Workflow sales and Strategic FTE resources, set forth elsewhere in this Addendum.

ARTICLE 4
RESTRICTIONS AND RIGHTS

4.1 **Services Restrictions on IM**. Commencing with the Addendum Effective Date, and continuing until [*], IM shall refrain from entering into any agreements defining joint marketing, sales or development obligations with a Competitor to address any Strategic Field with any Strategic Account. For the avoidance of doubt, this provision does not and is not intended to restrict IM from (i) selling one or more Wets Workflows in whole or in part to any Strategic Account, subject to the restrictions in Section 4.2, or for performing services for a Competitor in the Strategic Fields, except as set forth above, or (ii) licensing its IM Independent IP to any Strategic Accounts or other Third Parties.

In the event that (i) Actual Royalties (as hereinafter defined) paid by ATMI to IM are equal to or greater than [*] US dollars (US$[*]) by [*], and (ii) ATMI elects to extend its commitment to pay for the IM Strategic FTEs in Section 3.1 for [*] through [*],

then IM' s obligations set forth in this Section 4.1 shall be extended until [*] ("**First Extension**").

If ATMI has elected to exercise the First Extension and met the requirements therein, then ATMI may elect to extend IM' s obligations set forth in this Section 4.1 until [*] if (i) Actual Royalties (as hereinafter defined) paid by ATMI to IM from [*] to [*] are equal to or greater than [*] US dollars (US$[*]), and (ii) ATMI elects to extend its commitment to pay for the IM Strategic FTEs in Section 3.1 for [*] through [*] ("**Second Extension**").

If ATMI has elected to exercise the Second Extension and met the requirements therein, then ATMI may elect to extend IM' s obligations set forth in this Section 4.1 until [*] if (i) Actual Royalties (as hereinafter defined) paid by ATMI to IM from [*] to [*] are equal to or greater than [*] US dollars (US$[*]), and (ii) ATMI elects to extend its commitment to pay for the IM Strategic FTEs in Section 3.1 for [*] through [*].

4.2 **Wets Workflow Restrictions on IM**. Commencing with the Addendum Effective Date, and continuing until [*], IM agrees not to ship (a) more than [*] of each Element of a Wets Workflow to a Competitor and/or (b) a [*] system(s) to a Strategic Account for use in the Strategic Fields without a written agreement that provides (i) ATMI, (ii) ATMI and IM or (iii) IM, subject to Section 2.5 of the Alliance Agreement between the parties dated November 17, 2006 (the "Alliance Agreement"), the right to source materials developed through the use of the [*] system(s) to that Strategic Account (absent mutual written consent of the parties to ship said system(s) without such sourcing rights). For the purposes of the preceding sentence, Section 2.5 of the Alliance Agreement shall be amended so that (x) references to "CDP Fields" shall include the Strategic Fields, and (y) references to "Materials" shall mean materials developed through the use of the [*] system(s) by the applicable Strategic Account. Nothing in this Addendum shall preclude IM from (a) shipping a Wets Workflow in whole or in part to a company that is not a Competitor or Strategic Account, (b) shipping two or more Elements of a Wets Workflow in whole or in part to a Competitor on or after [*], or (c) shipping a [*] system(s) to a Strategic Account for use in the Strategic Fields without rights to source the materials discovered through the use of the [*] systems on or after [*]. The foregoing shall in no way reduce IM' s obligations pursuant to Section 4.13 of the Agreement.

4.3 **Dry Workflow Rights for ATMI**. Commencing with the Addendum Effective Date, and continuing until [*], IM agrees to provide ATMI a Right of First Negotiation ("***ROFN***") before selling or licensing its [*] based Workflow ("***Dry Workflow***") to a Competitor. Under this ROFN, IM

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agrees to offer its Dry Workflow to ATMI no earlier than [*] from its initial availability and negotiate in good faith with ATMI for [*] to come to terms on the sale and licensing of IM' s Dry Workflow to ATMI. During this [*] period, IM shall not negotiate, or enter into an agreement, to sell or license its Dry Workflow to a Competitor. Nothing in this Addendum shall A) preclude IM from (i) shipping a Dry Workflow in whole or in part to a company that is not a Competitor, or (ii) selling or licensing a Dry Workflow in whole or in part to a Competitor on or after the [*] of the ROFN negotiation period or after [*], whichever occurs first; or B) require IM to provide ATMI a ROFN if IM does not sell or license its Dry Workflow in whole or in part to a Competitor prior to [*].

4.4 **Access to Independent IP**. No license right shall be created by implication, estoppel or otherwise, by this Addendum, to the other Party' s Independent IP, except as explicitly set forth in the Agreement.

ARTICLE 5
ROYALTIES

5.1 **Royalty Payments to ATMI**: IM shall pay royalties to ATMI of [*] percent [*] of the gross sales proceeds arising from ATMI' s successful brokering the sale of an element of the Wets Workflow to a Strategic Account, after the Addendum Effective Date, and on or before [*]. ATMI shall only be deemed to have successfully brokered the sale if the Strategic Account (a) issues a purchase order acceptable to IM, and (b) signs an agreement for the purchase of an element of the Wets Workflow, under terms and conditions that are substantially identical to those set forth in the Agreement (except for terms relating to exclusivity and volume discounts, and terms relating to the Alliance Agreement). No royalties under this Section 5.1 shall be payable except in connection with the sale of an element of a Wets Workflow to a Strategic Account through the efforts of ATMI. Moreover, in no event shall any royalty be payable to ATMI in connection with any sale by IM of a Wets Workflow element to IBM Corporation, except by mutual agreement of the parties; however, such agreement can be withheld by either party in its sole discretion. Furthermore, as used in this Section, "gross sales proceeds" shall consist of the sale price of the Wets Workflow element, excluding royalties payable by the Strategic Account to IM, and excluding the price of annual warranties and licenses after the first year, and less the following: (i) Third Party sales commissions, allowances, discounts, including cash discounts, rebates and returns all to the extent actually given in the trade by IM or its affiliates; (ii) sales, excise and similar taxes (including but not limited to any value added tax or withholding taxes) or duties; and (iii) insurance and freight.

5.2 **Royalty Payments to IM**: ATMI' s obligation to pay IM royalties as set forth in Section 6.1 of the Agreement for Products, Product licenses, or other business arrangements shall apply to (a) the use of any Wets Workflow sold to ATMI

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pursuant to this Addendum, or (b) the use of the Wets Workflow access provided under Section 3.2 to this Addendum ("***Actual Royalties***"). Actual Royalties shall include royalties payable by ATMI pursuant to Section 14 of [*] CDP agreement dated November 16, 2007 as amended by the parties in the October 11, 2007 letter addendum.

5.3 **Prepaid Guaranteed Minimum Royalties**: ATMI will pay Guaranteed Minimum Royalties to IM as set forth in this Section 5.3. Within [*] days of the Addendum Effective Date, ATMI shall pre-pay Guaranteed Minimum Royalties to IM in the amount of [*]US dollars (US$[*]) ("***Pre-paid Royalty***"). Said payment shall be made as set forth in the Agreement and shall be applied to the Guaranteed Minimum Royalties for the Royalty Periods defined as follows:

"Royalty Period One", consisting of the period from [*] through [*]: Guaranteed Minimum Royalties in the amount of [*] US dollars (US$[*]).

"Royalty Period Two", consisting of the period from [*] through [*]: Guaranteed Minimum Royalties of [*] US dollars (US$[*]).

"Royalty Period Three", consisting of the period from [*] through [*]: Guaranteed Minimum Royalties of [*] US dollars (US$[*]).

In the event that Actual Royalties due to IM are greater than the Guaranteed Minimum Royalty for a given Royalty Period, the excess royalties due for that Royalty Period shall be paid from the Pre-paid Royalty. Any excess royalty amount for a particular Royalty Period that is paid from the Pre-paid Royalty shall not reduce the Guaranteed Minimum Royalty set forth above for later Royalty Periods. No refunds shall be due in the event that the Actual Royalties for a Royalty Period are less than its Guaranteed Minimum Royalties. In the event that Actual Royalties due from ATMI to IM are in excess of the Pre-paid Royalty, the remaining royalties due shall be paid as set forth in the Agreement. Royalties shall continue to be payable after the end of Royalty Period Three in accordance with the terms of the Agreement and this Addendum.

If ATMI terminates the Purchase Documentation, pursuant to Section 11.2 of the Agreement, of any of the Second, Third or Fourth Wets Workflows (as set forth in Section 2.1-3 of this Addendum), then IM shall promptly refund [*] of the Pre-paid Royalty for each such set of Wets Workflow Purchase Documentation so terminated. However, if ATMI elects not to receive the Fourth Wets Workflow as set forth in Quote #4, then ATMI shall not be eligible for a refund on the Pre-paid Royalties for that Wets Workflow as set forth in this Section.

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ARTICLE 6
WARRANT

6.1 **Issuance**. Upon execution of this Addendum IM shall issue to ATMI a warrant in the form attached as Appendix E (the "Warrant"), to purchase common shares of IM on the terms and conditions set forth in the Warrant.

Except as modified by this Addendum, the terms of the Agreement shall remain in full force and effect. The Agreement, together with all Exhibits thereto, and together with this Addendum, and all Appendices hereto, constitutes the entire agreement and understanding of the parties relating to the subject matter hereof, and supersedes all prior negotiations and understandings between the parties, both oral and written, regarding such subject matter.

IN WITNESS WHEREOF, the parties hereto have executed this Addendum as of the day and year first written above.

Intermolecular, Inc.		**Advanced Technology Materials, Inc.**	
By:	/s/ David Lazovsky	By:	/s/ Daniel P. Sharkey
Name:	David Lazovsky	Name:	Daniel P. Sharkey
Title:	President & CEO	Title:	EVP − Business Development
Date:	12/20/07	Date:	12-21-07

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

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APPENDIX A

Opportunity (Near-term through [*])	No. of [*]	Product Type	Priority
All (Centered around Wets workflow)			
[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]

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[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]

Appendix B
[Modified Quote #2 Agreement Exhibit A-1]
Revised December 19, 2007

Description	Qty.	List Price	Ext. List	Disc. %	Price
[*]					
[*]					
1 **[*]** [*] Target Ship Date: [*]	[*]	**$** [*]	**$** [*]	[*]%	**$** [*]
2 **[*]** [*] Target Ship Date: [*]	[*]	**$** [*]	**$** [*]	[*]%	**$** [*]
3 **[*]** [*] Target Ship Date: [*]	[*]	**$** [*]	**$** [*]	[*]%	**$** [*]
4 **[*]** [*]	[*]	**$** [*]	**$** [*]	[*]%	**$** [*]-
5 **[*]** [*]	[*]	**$** [*]	**$** [*]	[*]%	**$** [*]
6 **[*]** [*]	[*]	**$** [*]	**$** [*]	[*]%	**$** [*]
7 **[*]** [*]	[*]	**$** [*]	**$** [*]	[*]%	**$** [*]
8 **[*]**	[*]	**$** [*]	**$** [*]	[*]%	**$** [*]

[*]				
Subtotal ATMI Alliance HPC-Enabled Workflow Price	$	[*]	[*]%	$ [*]
Volume Discount			[*]%	$ [*]
Total ATMI Alliance HPC-Enabled Workflow Price				$ [*]

Payment terms:

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[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Description	Qty.	List Price	Ext. List	Disc. %	Price
[*]					
[*]					
9 **[*]** [*]	[*]	$ [*]	$ [*]	[*]%	$ [*]
10 **[*]** [*]	[*]	$ [*]	$ [*]	[*]%	$ [*]-
11 **[*]** [*]	[*]	$ [*]	$ [*]	[*]%	$ [*]
12 **[*]** [*]	[*]	$ [*]	$ [*]	[*]%	$ [*]
13 **[*]** [*]	[*]	$ [*]	$ [*]	[*]%	$ [*]

14	**[*]** [*]	[*]	**$** [*]	**$** [*]	[*]%	**$** [*]
	Total ATMI Alliance HPC Use Licenses, Maintenance & Support, Annual Renewal			**$** [*]	[*]%	**$** [*]
	Volume Discount, Annual Renewal				[*]%	**$** [*]
	Total ATMI Alliance HPC-Enabled Workflow Annual Renewal Price					**$** [*]

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Description	Qty.	List Price	Ext. List	Disc. %	Price

Extended Descriptions

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(End of Quote)

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Appendix C
[Agreement Exhibit A-2]
Single Workflow #3 Quote – December 19, 2007

Description	Qty.	List Price	Ext. List	Disc. %	Price

[*]								
[*]								
1	**[*]** [*] Target Ship Date: [*]	[*]	**$**	[*]	**$**	[*]	[*]%	**$** [*]
2	**[*]** [*] Target Ship Date: [*]	[*]	**$**	[*]	**$**	[*]	[*]%	**$** [*]-
3	**[*]** [*] Target Ship Date: [*]	[*]	**$**	[*]	**$**	[*]	[*]%	**$** [*]
4	**[*]** [*]	[*]	**$**	[*]	**$**	[*]	[*]%	**$** [*]
5	**[*]** [*]	[*]	**$**	[*]	**$**	[*]	[*]%	**$** [*]
6	**[*]** [*]	[*]	**$**	[*]	**$**	[*]	[*]%	**$** [*]-
7	**[*]** [*]	[*]	**$**	[*]	**$**	[*]	[*]%	**$** [*]
8	**[*]** [*]	[*]	**$**	[*]	**$**	[*]	[*]%	**$** [*]
	Subtotal ATMI Alliance HPC-Enabled Workflow Price				**$**	[*]	[*]%	**$** [*]
	Volume Discount						[*]%	**$** [*]
	Total ATMI Alliance HPC-Enabled Workflow Price							**$** [*]

Payment terms:

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[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

	Description	Qty.	List Price	Ext. List	Disc. %	Price
[*]						
	[*]					
9	[*] [*]	[*]	$ [*]	$ [*]	[*]%	$ [*]
10	[*] [*]	[*]	$ [*]	$ [*]	[*]%	$ [*]
11	[*] [*]	[*]	$ [*]	$ [*]	[*]%	$ [*]
12	[*] [*]	[*]	$ [*]	$ [*]	[*]%	$ [*]-
13	[*] [*]	[*]	$ [*]	$ [*]	[*]%	$ [*]
14	[*] [*]	[*]	$ [*]	$ [*]	[*]%	$ [*]
	Total ATMI Alliance HPC Use Licenses, Maintenance & Support, Annual Renewal			$ [*]	[*]%	$ [*]
	Volume Discount, Annual Renewal				[*]%	$ [*]
	Total ATMI Alliance HPC-Enabled Workflow Annual Renewal Price					$ [*]

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Description	Qty.	List Price	Ext. List	Disc. %	Price

Extended Descriptions

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(End of Quote)

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[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Appendix D
[Agreement Exhibit A-3]
Single Workflow #4 Quote – December 19, 2007

Description	Qty.	List Price	Ext. List	Disc. %	Price
[*]					
[*]					
1 **[*]** [*] Target Ship Date: [*]	[*]	$ [*]	$ [*]	[*]%	$ [*]
2 **[*]** [*] Target Ship Date: [*]	[*]	$ [*]	$ [*]	[*]%	$ [*]
3 **[*]** [*] Target Ship Date: [*]	[*]	$ [*]	$ [*]	[*]%	$ [*]
4 **[*]** [*]	[*]	$ [*]	$ [*]	[*]%	$ [*]-

5	**[*]** [*]	[*]	**$**	[*]	**$**	[*]	[*]%	**$**	[*]
6	**[*]** [*]	[*]	**$**	[*]	**$**	[*]	[*]%	**$**	[*]
7	**[*]** [*]	[*]	**$**	[*]	**$**	[*]	[*]%	**$**	[*]
8	**[*]** [*]	[*]	**$**	[*]	**$**	[*]	[*]%	**$**	[*]
	Subtotal ATMI Alliance HPC-Enabled Workflow Price				**$**	[*]	[*]%	**$**	[*]
	Volume Discount						[*]%	**$**	[*]
	Total ATMI Alliance HPC-Enabled Workflow Price							**$**	[*]

Payment terms:

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[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

INTERMOLECULAR

Description	Qty.	List Price	Ext. List	Disc. %	Price
[*]					
9 **[*]**	[*]	**$** [*]	**$** [*]	[*]%	**$** [*]

	[*]								
10	**[*]** [*]	[*]	**$**	[*]	**$**	[*]	[*]%	**$**	[*]
11	**[*]** [*]	[*]	**$**	[*]	**$**	[*]	[*]%	**$**	[*]-
12	**[*]** [*]	[*]	**$**	[*]	**$**	[*]	[*]%	**$**	[*]
13	**[*]** [*]	[*]	**$**	[*]	**$**	[*]	[*]%	**$**	[*]
14	**[*]** [*]	[*]	**$**	[*]	**$**	[*]	[*]%	**$**	[*]
	Total ATMI Alliance HPC Use Licenses, Maintenance & Support, Annual Renewal				**$**	[*]	[*]%	**$**	[*]
	Volume Discount, Annual Renewal						[*]%	**$**	[*]
	Total ATMI Alliance HPC-Enabled Workflow Annual Renewal Price							**$**	[*]

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Description	Qty.	List Price	Ext. List	Disc. %	Price

Extended Descriptions

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(End of Quote)

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

APPENDIX E

COMMON STOCK WARRANT

THIS WARRANT AND THE SHARES OF COMMON STOCK PURCHASABLE HEREUNDER HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), OR UNDER THE SECURITIES LAWS OF ANY STATE OR OTHER JURISDICTION AND MAY NOT BE SOLD, OFFERED FOR SALE OR OTHERWISE TRANSFERRED UNLESS REGISTERED OR QUALIFIED UNDER SAID ACT AND APPLICABLE STATE SECURITIES LAWS OR UNLESS THE COMPANY RECEIVES AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY THAT REGISTRATION, QUALIFICATION OR OTHER SUCH ACTIONS ARE NOT REQUIRED UNDER SAID ACT.

INTERMOLECULAR, INC.

WARRANT TO PURCHASE SHARES OF COMMON STOCK

WARRANT NO. NUMBER OF SHARES: Up To 1,470,000

Issue Date: December 21, 2007

VOID AFTER DECEMBER 21, 2012.

THIS CERTIFIES THAT, for value received, Advanced Technology Materials, Inc. ("**Holder**") shall be, subject to the provisions and upon the terms and conditions hereinafter set forth, at any time on or after the Issue Date and on or prior to the close of business on the fifth anniversary of the Issue Date (or such earlier date as provided herein) but not thereafter (the "**Exercise Period**"), entitled to purchase up to 1,470,000 shares (the "**Warrant Shares**") of common stock, par value $0.001 per share (the "**Common Stock**") of Intermolecular, Inc., a Delaware corporation (the "**Company**"), at the Warrant Price (as hereinafter defined).

1. Warrant Price. The Warrant Price shall be one dollar and eighty-eight cents ($1.88) per share, subject to adjustment as provided in Section 6 below (the "**Warrant Price**").

2. Exercise; Issuance of Stock; Treatment of Warrant in Certain Events.

(a) Cash Exercise. The purchase right represented by this Warrant may be exercised during the Exercise Period by the Holder, in whole or in part, by the surrender of this Warrant (with a duly executed Notice of Exercise in the form attached hereto) at the principal executive offices of the Company (as set forth in Section 15 below) and by payment to the Company, by check, of an amount equal to the then applicable Warrant Price per share multiplied by the number of shares of Common Stock then being purchased. In the event of any exercise of the rights represented by this Warrant, certificates for the shares of Common Stock so purchased shall be in the name of, and delivered to, the Holder, or as such Holder may direct (subject to the terms of transfer contained herein and upon payment by such Holder of any applicable transfer taxes). Such delivery shall be made within ten (10) days after exercise of the

Warrant and at the Company' s expense and, unless this Warrant has been fully exercised or expired, a new Warrant having terms and conditions substantially identical to this Warrant and representing the portion of the shares of Common Stock, if any, with respect to which this Warrant shall not have been exercised, shall also be issued to the Holder within ten (10) days after exercise of the Warrant.

(b) Net-Issue Exercise. If this Warrant has not been either fully exercised or has not otherwise expired, then, immediately after the expiration of the Lockup Period (defined in Section 8 below), in lieu of exercising this Warrant pursuant to Section 2(a) above, the Holder may elect to exercise this Warrant, in whole or in part, on a net-issue basis by electing to surrender a number of Warrant Shares equal in value to the Warrant Price for the number of Warrant Shares in respect of which the Warrant is then being exercised, by surrender of this Warrant (with a duly executed Notice of Exercise designating the Holder' s election to exercise on a net-issue basis), at the principal executive offices of the Company. The Exercise Notice shall be properly marked to indicate (i) the number of Warrant Shares to be delivered to the Holder in connection with such net-issue exercise, (ii) the number of Warrant Shares being surrendered in payment of the Exercise Price for the number of Warrant Shares in respect of which this Warrant is then being exercised in connection with such net-issue exercise, calculated as of the Determination Date (as defined below) and (iii) the number of Warrant Shares which remain subject to this Warrant after such net-issue exercise, if any (each as determined in accordance with this Section 2(b)). In the event that the Holder elects to exercise this Warrant in whole or in part on a net-issue basis pursuant to this Section 2(b), the Company will issue to the Holder the number of Warrant Shares determined in accordance with the following formula:

$$X = Y (A-B) / A$$

where:

- "***X***" is the number of Warrant Shares to be issued to the holder in connection with such net-issue exercise;
- "***Y***" is the number of Warrant Shares to be exercised, up to the number of Warrant Shares subject to this Warrant;
- "***A***" is the Fair Market Value of one share of Common Stock; and
- "***B***" is the Exercise Price in effect as of the date of such net-issue exercise.

For purposes of this Section 2(b), the "**Fair Market Value**" of one share of Common Stock will have the following meanings: (i) if the Common Stock is listed for trading on a national securities exchange or admitted for trading on a national market or other quotation system, then the Fair Market Value of Common Stock will be deemed to be the average Closing Sales Price for the ten (10) Trading Days immediately preceding, but not including the Determination Date or (ii) if the Common Stock is not listed for trading on a

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national securities exchange or admitted for trading on a national market or other quotation system, then the Fair Market Value of Common Stock will be deemed to be the fair market value of Common Stock as determined in good faith from time to time by the Company' s board of directors or a committee thereof (the "**Board of Directors**") as of the Determination Date, and receipt and acknowledgment of this Warrant by the holder will be deemed to be an acknowledgment and acceptance of any such determination by the Board of Directors as the final and binding determination of such Fair Market Value for purposes of this Section 2(b). "**Closing Sales Price**" means the closing sales price of the Common Stock, as quoted on the principal securities exchange on which the Common Stock is listed for trading, or if not so listed, the average of the closing bid and asked prices for Common Stock quoted on the national market or other quotation system on which Common Stock is admitted for trading, each as published in *The Wall Street Journal* (Western edition) or, if such prices are not published in *The Wall Street Journal* (Western edition), as reported by the applicable authority or association governing trading of the Common Stock. The "**Determination Date**" of Fair

Market Value will be the date indicated on the Exercise Notice; *provided, however*, that if the Company does not receive the Exercise Notice within five (5) business days of the date indicated thereon, the Determination Date will be the date the Company receives such Exercise Notice. "**Trading Day**" means, as applied to any class of stock, any day on which the exchange or market which is the primary market for the stock, is open for the trading of securities generally and with respect to which information regarding the sale of securities included therein, or with respect to which sales information is reported, is generally available.

(c) Fractional Interests. No fractional shares shall be issued upon the exercise of this Warrant, but in lieu thereof the Company shall pay therefor in cash an amount equal to the product obtained by multiplying the Closing Sales Price of the Common Stock (or if the Common Stock is not listed for trading on a national securities exchange or admitted for trading on a national market or other quotation system, then the Fair Market Value of the Common Stock as determined by the Board of Directors in the manner set forth in clause (ii) of the last paragraph of Section 2(b) above) on the Trading Day immediately preceding the date of exercise of this Warrant times such fraction (rounded to the nearest cent).

(d) Deemed Issuance. Upon such surrender of this Warrant, delivery of the Exercise Notice and, in the case of a cash exercise pursuant to Section 2(a) above, payment of the Exercise Price, the Company shall, issue and cause to be delivered with all reasonable dispatch to the holder a certificate or certificates for the number of full Warrant Shares so purchased upon the exercise of this Warrant, together with a check or cash in respect of any fractional shares otherwise deliverable upon such exercise, as provided in Section 2(c) above. Such certificate or certificates shall be deemed to have been issued as of the date of the surrender of this Warrant and payment of the Exercise Price (payment of such exercise price shall be deemed satisfied by use of the net-issue exercise procedures in Section 2(b) above).

(e) Warrant Exercisable in Whole or in Part. The rights of purchase represented by this Warrant shall be exercisable, at the election of the holder, either in

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full or from time to time in part. If this Warrant is exercised in respect of less than all of the Warrant Shares purchasable on such exercise at any time prior to the Expiration Date, a new Warrant of like tenor exercisable for the remaining Warrant Shares may be issued and delivered to the holder by the Company. This Warrant or any part thereof surrendered in the exercise of the rights thereby evidenced shall thereupon be cancelled by the Company and retired.

(f) Treatment of Warrant upon a Change of Control. In the event of a Change of Control during the Exercise Period, either (x) the Holder shall exercise its purchase right under this Warrant, such exercise to be deemed effective immediately prior to the effectiveness of such Change of Control or (y) the Warrant shall expire upon the effectiveness of such Change of Control. The Company shall provide the Holder with written notice of the contemplated Change of Control, which is to be delivered to Holder not less than ten (10) days prior to the effectiveness of such Change of Control. In the event that the Company shall have given notice of a Change of Control, but such Change of Control does not become effective within 60 days of the effectiveness date specified by the Company, unless otherwise elected by the Holder, any exercise of the Warrant subsequent to the giving of such notice shall be rescinded and the Warrant shall again be exercisable until later exercised or expired. For purposes of this Warrant, "**Change of Control**" shall mean (i) the acquisition of the Company by another entity by means of any transaction or series of related transactions (including, without limitation, any reorganization, merger or consolidation) unless the Company' s stockholders of record as constituted immediately prior to such transaction or series of related transactions will, immediately after such transaction or series of related transactions (by virtue of securities retained or issued as consideration in such transaction or series of related transactions) hold at least a majority of the voting power of the surviving or acquiring entity (or parent thereof) in the same relative percentages after such transaction or series of related transactions as immediately prior to such transaction or series of related transactions; (ii) a sale of all or substantially all of the assets of the Company; (iii) the closing of the transfer, in one transaction or a series of related transactions, to a person or group of affiliated persons (other than an underwriter of the Company' s securities or a transaction for the sale of Preferred Stock

for capital raising purposes), of the Company' s securities if, after such closing, such person or group of affiliated persons would hold fifty percent (50%) or more of the outstanding voting stock of the Company; or (iv) an exclusive license of all or substantially all of the Company' s intellectual property.

(g) Treatment of Warrant upon an IPO. In the event of the underwritten initial public offering of the Common Stock (the "**IPO**") during the Exercise Period, the Company may, in its sole discretion, elect to require the Holder to exercise its purchase right under this Warrant prior to the consummation of the IPO (a "**IPO Exercise Election**"), and the Warrant shall expire upon consummation of the IPO. The Company shall provide the Holder with written notice of the IPO and, if applicable, the IPO Exercise Election, which shall be delivered to Holder not less than ten (10) days prior to the closing of the IPO. In the event the IPO is not consummated within 60 days of the closing date specified by the Company in such IPO Exercise Election notice,

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unless otherwise elected by the Holder, any exercise of the Warrant subsequent to the giving of such notice shall be rescinded and the Warrant shall again be exercisable until later exercised or expired. If an IPO Exercise Election is not made by the Company, the Warrant will continue to be exercisable until later expired.

3. Representations and Warranties of Holder and Restrictions on Transfer Imposed by the Securities Act of 1933.

(a) Representations and Warranties by Holder. The Holder represents and warrants to the Company with respect to this purchase as follows:

(i) The Holder has substantial experience in evaluating and investing in private placement transactions of securities of companies similar to the Company so that the Holder is capable of evaluating the merits and risks of its investment in the Company and has the capacity to protect its interests.

(ii) The Holder is acquiring the Warrant and the shares of Common Stock issuable upon exercise of the Warrant (collectively the "**Securities**") for investment for its own account and not with a view to, or for resale in connection with, any distribution thereof. The Holder understands that the Securities have not been registered under the Act by reason of a specific exemption from the registration provisions of the Act, which depends upon, among other things, the bona fide nature of the investment intent as expressed herein. In this connection, the Holder understands that, in the view of the Securities and Exchange Commission (the "**SEC**"), the statutory basis for such exemption may be unavailable if this representation was predicated solely upon a present intention to hold the Securities for the minimum capital gains period specified under tax statutes, for a deferred sale, for or until an increase or decrease in the market price of the Securities or for a period of one year or any other fixed period in the future.

(iii) The Holder acknowledges that the Securities must be held indefinitely unless subsequently registered under the Act or an exemption from such registration is available. The Holder is aware of the provisions of Rule 144 promulgated under the Act ("**Rule 144**") which permits limited resale of securities purchased in a private placement subject to the satisfaction of certain conditions.

(iv) The Holder further understands that at the time the Holder wishes to sell the Securities there may be no public market upon which such a sale may be effected, and that even if such a public market exists, the Company may not be satisfying the current public information requirements of Rule 144, and that in such event, the Holder may be precluded from selling the Securities under Rule 144.

(v) The Holder has had an opportunity to discuss the Company' s business, management and financial affairs with its management and an opportunity to review the Company' s facilities. The Holder understands

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that such discussions, as well as the written information issued by the Company, were intended to describe the aspects of the Company' s business and prospects which it believes to be material but were not necessarily a thorough or exhaustive description.

(b) Legends. Each certificate representing the Securities shall be endorsed with the following legend:

THESE SECURITIES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), OR UNDER THE SECURITIES LAWS OF ANY STATE OR OTHER JURISDICTION AND MAY NOT BE SOLD, OFFERED FOR SALE OR OTHERWISE TRANSFERRED UNLESS REGISTERED OR QUALIFIED UNDER SAID ACT AND APPLICABLE STATE SECURITIES LAWS OR UNLESS THE COMPANY RECEIVES AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY THAT REGISTRATION, QUALIFICATION OR OTHER SUCH ACTIONS ARE NOT REQUIRED UNDER SAID ACT.

The Company need not enter into its stock register a transfer of Securities and may also instruct its transfer agent not to register the transfer of any Securities, unless the conditions specified in the foregoing legend and the applicable conditions set forth in Section 4 below are satisfied.

(c) Removal of Legend and Transfer Restrictions. The legend relating to the Act endorsed on a certificate pursuant to Section 3(b) above and the stop transfer instructions with respect to the Securities represented by such certificate shall be removed and the Company shall issue a certificate without such legend to the Holder of the Securities if (i) the Securities are registered under the Act and a prospectus meeting the requirements of Section 10 of the Act is available or (ii) the Holder provides to the Company an opinion of counsel for the Holder reasonably satisfactory to the Company to the effect that public sale, transfer or assignment of the Securities may be made without registration and without compliance with any restriction such as Rule 144.

4. Condition of Transfer or Exercise of Warrant; Transfer. It shall be a condition to any transfer or exercise of this Warrant that at the time of such transfer or exercise, the Holder shall provide the Company with a representation in writing that the Holder or transferee is acquiring this Warrant and the shares of Common Stock to be issued upon exercise, for investment purposes only and not with a view to any sale or distribution, and shall provide the Company with a statement of pertinent facts covering any proposed distribution. As a further condition to any transfer of this Warrant or any or all of the shares of Common Stock issuable upon exercise of this Warrant, other than a transfer registered under the Act, the Company must have received a legal opinion, in form and substance satisfactory to the Company and its counsel, reciting the pertinent circumstances surrounding the proposed transfer and stating that such transfer is exempt from the registration and prospectus delivery requirements of the Act. This Warrant is transferable on the books of the Company at its principal office by the registered Holder upon surrender of this Warrant properly endorsed, subject to compliance with this Section 4 and applicable federal

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and state securities laws. The Company shall issue and deliver to the transferee a new Warrant representing the Warrant so transferred. Upon any partial transfer, the Company shall issue and deliver to Holder a new Warrant with respect to the Warrant not so transferred. Holder shall not have any right to transfer any portion of this Warrant to any competitor of the Company, as reasonably determined by the Company' s Board of Directors.

5. Stock Fully Paid; Reservation of Shares. All shares of Common Stock issuable upon the exercise of this Warrant, shall, upon issuance, be fully paid and non-assessable. During the period within which the rights represented by this Warrant may be exercised, the Company shall at all times have authorized, and reserved for issuance upon exercise of the purchase rights evidenced by this Warrant, a sufficient number of shares of Common Stock to provide for the exercise of the rights represented by this Warrant.

6. Warrant Price Adjustments. In the event of changes in the outstanding Common Stock by reason of stock dividends, split-ups, recapitalizations, reclassifications, mergers, consolidations, combinations or exchanges of shares, separations, reorganizations, liquidations, or the like, the number and class of shares available under the Warrant in the aggregate and the Warrant Price shall be correspondingly adjusted, as appropriate, by the Board of Directors of the Company. The adjustment shall be such as to give the Holder of this Warrant upon exercise for the same aggregate Warrant Price the total number, class and kind of shares as it would have owned had the Warrant been exercised prior to the event and had it continued to hold such shares until after the event requiring adjustment.

7. Notice of Adjustments. Whenever any Warrant Price shall be adjusted pursuant to Section 6 above, the Company shall prepare a certificate signed by its chief financial officer setting forth, in reasonable detail, the event requiring the adjustment, the amount of the adjustment, the method by which such adjustment was calculated, and the Warrant Price and number of shares issuable upon exercise of the Warrant after giving effect to such adjustment, and shall cause copies of such certificate to be mailed (by certified or registered mail, return receipt required, postage prepaid) within thirty (30) days of such adjustment to the Holder of this Warrant as set forth in Section 15 below.

8. "Market Stand-Off" Agreement. Holder hereby agrees that for a period of up to 180 days following the effective date of the registration statement of the Company covering Common Stock (or other securities) to be sold in the IPO (the "**Lockup Period**"), it shall not, to the extent requested by the Company and any underwriter, sell or otherwise transfer or dispose of (other than to designees or transferees who agree to be similarly bound) any of the shares of Common Stock at any time during such period except shares of Common Stock included in the IPO; provided, however, that all officers and directors of the Company who hold securities of the Company or options to acquire securities of the Company and all other persons with registration rights enter into similar agreements.

9. Charges, Taxes and Expenses. Issuance of certificates for shares of Common Stock upon the exercise of this Warrant shall be made without charge to the Holder for any United States or state of the United States documentary stamp tax or other incidental expense with respect to the issuance of such certificate, all of which taxes and

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expenses shall be paid by the Company, and such certificates shall be issued in the name of the Holder.

10. No Shareholder Rights Until Exercise. This Warrant does not entitle the Holder to any voting rights or other rights as a shareholder of the Company prior to the exercise of this Warrant.

11. Registry of Warrant. The Company shall maintain a registry showing the name and address of the registered Holder of this Warrant. This Warrant may be surrendered for exchange or exercise, in accordance with its terms, at such office or agency of the Company, and the Company and Holder shall be entitled to rely in all respects, prior to written notice to the contrary, upon such registry.

12. Loss, Theft, Destruction or Mutilation of Warrant. Upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant, and, in the case of loss, theft, or destruction, of indemnity reasonably satisfactory to it, and, if mutilated, upon surrender and cancellation of this Warrant, the Company shall execute and deliver a new Warrant, having terms and conditions substantially identical to this Warrant, in lieu hereof.

13. Miscellaneous.

(a) Issue Date. The provisions of this Warrant shall be construed and shall be given effect in all respect as if it had been issued and delivered by the Company on the date hereof (the "**Issue Date**").

(b) Successors. This Warrant shall be binding upon any successors or assigns of the Company.

(c) Governing Law. This Warrant shall be governed by and construed in accordance with the laws of the State of California.

(d) Headings. The headings used in this Warrant are used for convenience only and are not to be considered in construing or interpreting this Warrant.

(e) Saturdays, Sundays, Holidays. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall be a Saturday or a Sunday or shall be a legal holiday in the State of California, then such action may be taken or such right may be exercised on the next succeeding day not a legal holiday.

(f) Counterparts. This Warrant may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

14. No Impairment. The Company shall not by any action including, without limitation, amending its certificate of incorporation or by-laws, any reorganization, transfer of assets, consolidation, merger, share exchange dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of the Warrant or impair the ability of the Holder(s) to realize upon the intended economic value hereof, but shall at all times in good faith assist in

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the carrying out of all such terms and in the taking of all such action as may be necessary or appropriate to protect the rights of the Holder(s) of this Warrant against impairment. Without limiting the generality of the foregoing, the Company shall (a) not increase the par value of any shares of Common Stock issuable upon the exercise of the Warrant above the amount payable therefor upon such exercise, (b) take all such action as may be necessary or appropriate in order that the Company may validly issue fully paid and non-assessable shares of Common Stock upon the exercise of the Warrant, or (c) obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof as may be necessary to enable the Company to perform its obligations under the Warrant.

15. Addresses. Any notice required or permitted hereunder shall be in writing and shall be mailed by overnight courier, registered or certified mail, return receipt required, and postage pre-paid, or otherwise delivered by hand or by messenger, addressed as set forth below, or at such other address as the Company or the Holder shall have furnished to the other party.

If to the Company: Intermolecular, Inc.

2865 Zanker Road
San Jose, CA 95134
Attn: Chief Financial Officer

If to the Holder: Advanced Technology Materials, Inc.
7 Commerce Drive
Danbury, CT 06810
Attn: Chief Financial Officer

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the Company and the Holder have caused this Warrant to be executed by its officers thereunto duly authorized.

Dated as of December 21, 2007.

INTERMOLECULAR, INC.

By: _____
Name: David E. Lazovsky
Title: Chief Executive Officer

*Acknowledged and Agreed***:**

ADVANCED TECHNOLOGY MATERIALS, INC.

By: _____
Name:
Title:

FORM OF
NOTICE OF EXERCISE

TO: Intermolecular, Inc.
2865 Zanker Road
San Jose, CA 95134
Attention: Chief Financial Officer

1. The undersigned, Advanced Technology Materials, Inc. ("**Holder**") elects to acquire shares of the Common Stock of Intermolecular, Inc. (the "**Company**"), pursuant to the terms of the Warrant dated December 21, 2007, (the "**Warrant**").

2. The undersigned hereby irrevocably elects to purchase shares of Common Stock of TheStreet.com, Inc. pursuant to the terms of this Warrant.

a. If **Cash Exercise**, check this box ☐: The undersigned tenders herewith full payment of the aggregate cash exercise price equal to $ U.S. Dollars for such shares in accordance with the terms of this Warrant.

b. If **Net-Issue Exercise**, check this box ☐: The undersigned exercises this Warrant on a net-issue basis pursuant to the terms set forth in this Warrant. Net-Issue Information:

(i) Number of Shares of Common Stock to be Delivered:

(ii) Number of Shares of Common Stock Surrendered:

(iii) Number of Shares Remaining Subject to Warrant, if any:

3. The Holder surrenders the Warrant with this Notice of Exercise.

4. The Holder represents that it is acquiring the aforesaid shares of Common Stock for investment and not with a view to or for resale in connection with, distribution and that the Holder has no present intention of distributing or reselling the shares.

5. Please issue a certificate representing the shares of Common Stock in the name of the Holder or in such other name as is specified below:

Name: _____
Address:

_____

Taxpayer I.D.: _____

Advanced Technology Materials, Inc.

By: _____
Name: _____
Title: _____
Date: _____

AMENDMENT TO ADDENDUM TO WETS WORKFLOW PURCHASE AGREEMENT

This Amendment ("Amendment") to the Addendum to Wets Workflow Purchase Agreement ("Addendum") having an effective date of December 21, 2007, shall be effective as of December 16, 2008 ("***Amendment Effective Date***"), is made by and between Advanced Technology Materials, Inc., with a principal place of business at 7 Commerce Drive, Danbury, CT 06810 ("***ATMI***") and Intermolecular, Inc., with a principal place of business at 2865 Zanker Road, San Jose, California 95134 ("***IM***"). ATMI and IM are sometimes referred to herein individually as a "party" and collectively as the "parties." Capitalized terms in this Amendment have the meaning assigned to them in the Addendum or the underlying Wets Workflow Purchase Agreement ("Agreement"), unless otherwise separately defined herein.

BACKGROUND

IM and ATMI entered into the Agreement effective July 13, 2007 and subsequently entered into the Addendum. The parties now wish to (i) amend certain terms contained in the Addendum and the Agreement, and (ii) modify their strategic alliance related to the sale of a Dry Workflow and the use thereof by the parties for their mutual benefit.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as set forth below.

ARTICLE 1
ADDITIONAL DEFINITIONS: MODIFIED DEFINITION

1.1 "***Dry Workflow***" means the [*] workflow sold to ATMI by separate agreement of same date as the Amendment Effective Date, which agreement shall be termed the "***Dry Workflow Purchase Agreement***."

1.2 "***Strategic FTE***" shall be modified to include an IM full-time employee or contractor dedicated to supporting the use of or programs using the Wet and/or Dry Workflow purchased pursuant to the Agreement, the Addendum and the Dry Workflow Purchase Agreement, but shall otherwise remain as defined in the Addendum. Any modification of the allocation from wet to dry programs shall be mutually agreed by the parties.

ARTICLE 2
WETS WORKFLOW PURCHASES

2.1 **Dry Workflow Purchase**. Pursuant to the terms of the December 21, 2007 Addendum, on August 7, 2008 ATMI elected to apply its payment for the Wets Workflow in Appendix D of the Addendum to the purchase of a Dry Workflow. In conjunction with the mutual execution of this Amendment, the parties shall execute the Dry Workflow Purchase Agreement governing the sale, license and use of the Dry Workflow, related software, and Intellectual Property rights.

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[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

2.2 **Warranty**. NO ADDITIONAL REPRESENTATION, WARRANTY, OR INDEMNIFICATION IS HEREBY PROVIDED BY IM OR ATMI OTHER THAN AS EXPLICITLY SET FORTH IN THE AGREEMENT OR THE DRY WORKFLOW PURCHASE AGREEMENT.

ARTICLE 3
STRATEGIC FTEs, PLAN AND WORKFLOW ACCESS

3.1 **Dedicated Personnel:** The parties agree that the final [*] Strategic FTEs referenced in Section 3.1 of the Addendum shall start on [*] providing services to ATMI to support the wet and/or dry processing activities as mutually agreed by the parties. ATMI shall pay IM for said FTEs at the rate of [*] US dollars (US$[*]) per FTE per month. IM will invoice ATMI monthly and payment terms shall be as set forth in the Agreement. Upon the mutual execution of this Amendment, ATMI shall issue or have in place a purchase order to IM to cover the [*] Strategic FTE Services through [*].

3.2 **Access to IM Workflow**. The Strategic FTEs shall have access to the dry workflow capabilities at IM, subject to other commitments to those tools (provided that IM shall use best commercial efforts to ensure reasonable access) until the [*] Dry Workflow tool purchased in the Dry Workflow Purchase Agreement is available to ATMI. In addition, IM agrees to extend the Wets Workflow access provided in Section 3.2 of the Addendum until [*]. This support shall include access to IM' s metrology and characterization infrastructure (i.e., physical and electrical test equipment) for that period. ATMI agrees to pay for consumables (such as wafers, mask sets, materials, and targets), outsourced metrology and characterization not supported internally by one of the parties, and other mutually agreed out-of-pocket costs to support the joint programs being performed by the parties using workflows at IM' s facility.

3.3 **Joint Marketing and Development Efforts**. The parties agree to develop joint marketing and development plans for projects utilizing the ATMI Dry Workflow ("***Joint Plan***"). The Joint Plan may be modified based on the mutual written consent of the parties from time to time and shall have the same term as the service restrictions in Section 4.1 below, including any extensions thereto.

ARTICLE 4
RESTRICTIONS AND RIGHTS

4.1 **Services Restrictions on IM**. Section 4.1 of the Addendum shall be replaced with the following:

> "Commencing with the Addendum Effective Date, and continuing until [*], IM shall refrain from entering into any agreements defining joint

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[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

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marketing (including, without limitation, joint technical presentations), sales or development obligations with a Competitor to address any Strategic Field with any Strategic Account. For the avoidance of doubt, this provision does not and is not intended to restrict IM from (i) selling one or more Wets Workflows in whole or in part to any Strategic Account, subject to the restrictions in Section 4.2 of the Addendum, or for performing services for a Competitor in the Strategic Fields, except as set forth above, or (ii) licensing its IM Independent IP to any Strategic Accounts or other Third Parties. At any time prior to [*] ATMI may elect in writing to extend its commitment to pay for the [*] Strategic FTEs in Section 3.1 of the Addendum and this Amendment for [*] through [*]. If ATMI makes such election to extend the FTEs, then IM' s obligations set forth in this Section 4.1 shall be extended until [*] ("***First Extension***"). If ATMI has elected to exercise the First Extension and met the requirements therein, then IM' s obligations set forth in this Section 4.1 shall be extended until [*] if (i) Actual Royalties (as hereinafter defined) paid by ATMI to IM from [*] are equal to or greater than [*] US dollars (US$[*]), and (ii) ATMI elects in writing to extend its commitment to pay for the [*] Strategic FTEs in Section 3.1 of the Addendum and this Amendment for [*] additional [*] through [*] ("***Second Extension***"). If ATMI has elected to exercise the Second Extension and met the requirements therein, then IM' s obligations set forth in this Section 4.1 shall be extended until [*] if (i) Actual Royalties (as hereinafter defined) paid by ATMI to IM from [*] are equal to or greater than [*]US dollars (US$[*]), and (ii) ATMI elects in writing to extend its commitment to pay for the [*] Strategic FTEs in Section 3.1 of the Addendum and this Amendment for [*] additional [*]through December 31, 2012.

4.2 **Workflow Restrictions on IM**. In addition to the restrictions set forth in Section 4.2 of the Addendum, the parties agree that commencing with the Addendum Effective Date , and continuing until [*], IM agrees not to ship (a) more than [*] of each Element of a Wets Workflow or (b) a [*] system to a Competitor. Nothing in this Amendment shall preclude IM from (a) shipping any Element of a Wets Workflow or a [*] system, in whole or in part, to a company that is not a Competitor, or (b) shipping a workflow, in whole or in part, to a Competitor after [*]. This provision shall in no way reduce IM' s obligations pursuant to Section 4.2 of the Addendum.

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

4.3 **Preferred Material Supplier**. IM agrees that it will evaluate available ATMI materials for any collaborative development program between IM and an integrated device manufacturer for an integrated circuit ("**IC**") or a [*] application that starts from the Amendment Effective Date until the later of [*] or the last extension period elected by ATMI pursuant to Section 4.1 of this Amendment ("**Collaboration**"). IM will make best commercial efforts to introduce new material opportunities to ATMI and qualify ATMI materials in such Collaborations. IM agrees to recommend ATMI materials to IM customers in Collaborations if the ATMI materials are timely available, meet the customer' s technical requirements; and are cost competitive. IM further agrees to provide written feedback to ATMI on any technical gaps and customer cost requirements. The Parties understand and agree that the selection of material provider is at the sole discretion of the IM customer. The Parties agree to review the progress under this Section at the Operating Committee meetings and work to address any issues through that process. Subject to the foregoing obligations, nothing in this Section shall limit IM from engaging Third Parties in IC or solar applications without ATMI or using materials from a Competitor as part of any such Collaboration.

4.4 **Access to Independent IP and IM Programs**. No license right shall be created by implication, estoppel or otherwise, by this Amendment, to the other Party' s Independent IP, except as explicitly set forth in the Agreement. No right shall be created by implication, estoppel or otherwise, by this Amendment, for ATMI to participate in any programs IM has or may have in IC or solar applications.

ARTICLE 5
ROYALTIES

5.1 **Royalty Payments to ATMI**: In addition to IM' s obligation to pay ATMI royalties for brokered sales of Wets Workflows to Strategic Accounts as set forth in Section 5.1 of the Addendum, the parties agree that IM' s royalty obligations shall apply to any Wets Workflow sale brokered by ATMI to one of its strategic material company partners. The second sentence of Section 5.1 of the Addendum is hereby amended to read as follows:

> "ATMI shall only be deemed to have successfully brokered the sale if the Strategic Account or ATMI strategic material company partner (a) issues a purchase order acceptable to IM in its reasonable discretion, and (b) signs an agreement for the purchase of an element of the Wets Workflow, under terms and conditions generally consistent with those set forth in the Agreement (except for terms relating to exclusivity and volume discounts, and terms relating to the Alliance Agreement)."
>
> This Section does not change any of the other terms of Section 5.1 of the Addendum which shall remain in full force and effect.

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

5.2 **Royalty Payments to IM**: ATMI' s obligation to pay IM royalties as set forth in the Dry Workflow Purchase Agreement shall apply to the use of any dry workflow to which IM provides ATMI and/or Strategic FTEs access under this Amendment and the foregoing shall be included in the definition of Actual Royalties. Actual Royalties shall include royalties payable by ATMI hereunder or under the Dry Workflow Purchase Agreement.

5.3 **Prepaid Guaranteed Minimum Royalties**: The royalty periods and associated royalties for the Guaranteed Minimum Royalties in Section 5.3 of the Addendum shall be amended as follows; otherwise, the terms of Section 5.3 of the Addendum remain in full force and effect:

"Royalty Period One", consisting of the period from [*] through [*]: Guaranteed Minimum Royalties in the amount of [*] US dollars (US$[*]).

"Royalty Period Two", consisting of the period from [*] through [*]: Guaranteed Minimum Royalties of [*] US dollars (US$[*]).

"Royalty Period Three", consisting of the period from January 1, 2011 through December 31, 2011: Guaranteed Minimum Royalties of five million US dollars (US$5,000,000).

"Royalty Period Four", consisting of the period from January 1, 2012 through December 31, 2012: Guaranteed Minimum Royalties of two million five hundred thousand US dollars (US$2,500,000).

Except as explicitly set forth in this Amendment, the terms of the Agreement and the Addendum shall remain in full force and effect. The Agreement, together with all Exhibits thereto, the Addendum, together with all Appendices thereto, the Dry Workflow Purchase Agreement, together will all Exhibits thereto, and together with this Amendment, constitutes the entire agreement and understanding of the parties relating to the subject matter hereof, and supersedes all prior negotiations and understandings between the parties, both oral and written, regarding such subject matter.

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

IN WITNESS WHEREOF, the parties hereto have executed this Addendum as of the day and year first written above.

Intermolecular, Inc.		**Advanced Technology Materials, Inc.**	
By	/s/ David Lazousky	By	/s/ Daniel P. Sharkey
Name:	David Lazousky	Name:	Daniel P. Sharkey
Title	President & CEO	Title	EVP, Business Development
Date:	12/12/08	Date:	12/12/08

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Supplement for Modification of 2009 Strategic FTEs
and Addition of 2010 Process Integration Support

This Supplemental Agreement ("***Supplement***") to the Amendment to the Addendum to Wets Workflow Purchase Agreement ("***Amendment***") having an effective date of March , 2009 ("***Supplement Effective Date***"), is made by and between Advanced Technology Materials, Inc., with a principal place of business at 7 Commerce Drive, Danbury, CT 06810 ("***ATMI***"), and Intermolecular, Inc., with a principal place of business at 2865 Zanker Road, San Jose, California 95134 ("***IM***"). ATMI and IM are sometimes referred to herein individually as a "party" and collectively as the "parties." Capitalized terms in this Supplement shall have the meaning assigned to them in the Amendment or other agreements between the parties, unless otherwise separately defined herein.

IM and ATMI entered into the Addendum to the Wets Workflow Purchase Agreement effective December 21, 2007, and subsequently entered into the Amendment effective on December 16, 2008. The parties now wish to (i) amend certain terms contained in the Amendment and Addendum, and (ii) modify their strategic alliance by revising certain services related to IM Strategic FTEs and adding Process Integration Support in April 2010 for their mutual benefit of the parties and their strategic alliance,

Process Integration Support includes access and utilization of Intermolecular' s clean room facilities, HPC systems, metrology, and other available infrastructure and expert technical support as mutually agreed to support paid programs.

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as set forth below.

1.0 Strategic FTC Modification and Process Integration Support. The parties agree to revise the contracted Strategic FTE support for the period from [*] through [*], from [*] Strategic FTEs to [*] Strategic FTEs and these Strategic FTEs shall continue to provide services to ATMI as mutually agreed by the parties. The parties agree that IM shall provide [*] Strategic FTEs to support the wet and/ or dry processing activities from [*] through [*] and that IM will provide Process Integration Support during this period. ATMI shall pay IM for said Strategic FTEs at the rate of [*] US dollars (US$[*]) per Strategic FTE per month. ATMI shall pay IM for said [*] at a rate of [*] dollars (US $[*]) per month.

1.1 ATMI shall modify purchase order # 893103 to reflect the above Strategic FTE cancellation and reduced amount owed within one (1) week of the execution of this Supplement, such purchase order shall indicate it is non- cancellable. This modified non-cancellable purchase order shall reflect the [*] Strategic FTE' s for the period [*] through [*] in the total amount of [*] US dollars ($[*]), and [*] Strategic FTE' s for the period [*]

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thru [*]in the total amount of [*] US dollars ($[*]), plus out of pocket costs.

1.2 ATMI shall issue a non-cancellable purchase order for the [*] Strategic FTE' s at the above rate for a total of [*] US dollars ($[*]) and [*] at the above rate for a total of [*] US dollars ($[*]) for the period [*] thru [*] plus out of pocket costs within one (1) week of execution of this Supplement.

l.3 ATMI agrees to pay IM [*] US dollars ($[*]) by [*] as a [*]% advance payment of the [*] through [*] Strategic FTE and [*] – the remaining amount shall be invoiced by IM and paid by ATMI monthly over the period of service.

2.0 HPC and Annual License Booking. ATMI shall issue non-cancellable purchase orders to support the HPC Site License, HPC Informatics Support and related warranties for the [*] Wet Workflows in the following amounts: [*] US dollars ($[*]), plus tax for Site #1, [*] US dollars ($[*]) for Site #2, and [*] US dollars ($[*]) for Site #3 as set forth in the attached quotes. IM shall invoice ATMI upon execution of this Supplement and ATMI shall pay the above amounts within ten (10) days of such invoice.

3.0 Services Restrictions on IM. The service restrictions, workflow restrictions and preferred material supplier language from Article 4 of the Amendment shall continue through [*] only if ATMI issues the non cancellable purchase orders in Sections 1.0 and 2.0 above and makes the associated payments in a timely manner. Any extensions of these obligations beyond [*] shall be governed by the requirements set forth in Article 4 of the Amendment.

If ATMI does not issue the non-cancellable purchase orders and make the payments as set forth herein, the terms of this Supplement shall be null and void and the Amendment, Addendum and other agreements between the parties shall govern the relationship between ATMI and IM.

Except as explicitly set forth in this Supplement, the terms of the Amendment, Addendum, and other agreements between the parties shall remain in full force and effect. The Supplement constitutes the entire agreement and understanding of the parties relating to the subject matter set forth herein, and supersedes all negotiations and understandings between the parties, both oral and written, regarding such subject matter.

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

IN WITNESS WHEREOF, the parties hereto have executed this Supplement as of the day and year first written above.

Intermolecular, Inc.		**Advanced Technology Materials, Inc.**	
By:	/s/ David Lazovsky	By:	/s/ Daniel P. Sharkey
Name:	David Lazovsky	Name:	Daniel P. Sharkey
Title:	President & CEO	Title:	EVP – Bus. Dev.
Date:	3/16/09	Date:	3-16-09

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Customer: ATMI
Dale: 3/12/2009
Quote#: 200901001-2

Description	Qty	List Price	Ext. List	Disc. %	Price
[*]					
[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]	[*]
Total ATMI Alliance HPC Use Licenses, Maintenance & Support, Annual Renewal			[*]	[*]	[*]
CT Sales Tax				[*]	[*]
Total					[*]

Payment terms:

[*]

[*]

[*]

2895 Zanker Road San Jose, CA 95134 www.intermolecular.com phone (408) 416-2300 fax (408) 416-2301

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Customer: ATMI
Dale: 3/12/2009
Quote#: 200902002-2

Description	Qty	List Price	Ext. List	Disc. %	Price
[*]					
[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]	[*]

[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]	[*]
Subtotal ATMI Alliance HPC Use Licenses, Maintenance & Support, Annual Renewal			[*]	[*]	[*]
Volume Discount				[*]	[*]
Total ATMI Alliance HPC Use Licenses, Maintenance & Support, Annual Renewal					[*]

Payment terms:

[*]

[*]

[*]

[*]

2895 Zanker Road San Jose, CA 95134 www.intermolecular.com phone (408) 416-2300 fax (408) 416-2301

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Customer: ATMI
Dale: 3/12/2009
Quote#: 200903001

Description	Qty	List Price	Ext. List	Disc. %	Price
[*]					
[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]	[*]
Subtotal ATMI Alliance HPC Use Licenses, Maintenance & Support, Annual Renewal			[*]	[*]	[*]
Volume Discount				[*]	[*]
Total ATMI Alliance HPC Use Licenses, Maintenance & Support, Annual Renewal					[*]

Payment terms:

[*]

[*]

[*]

[*]

2895 Zanker Road San Jose, CA 95134 www.intermolecular.com phone (408) 416-2300 fax (408) 416-2301

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ADVANCED MEMORY DEVELOPMENT PROGRAM AGREEMENT
Elpida Memory, Inc. - Intermolecular, Inc.

This Advanced Memory Development Program Agreement ("**Agreement**") is made as of May 22, 2008 ("**Effective Date**") between Elpida Memory, Inc., a Japanese corporation operating at 2-1, Yaesu 2-chome, Chuo-ku, Tokyo 104-0028, Japan ("**Elpida**"), and Intermolecular, Inc., a Delaware corporation operating at 2865 Zanker Road, San Jose, California 95134 or designated Affiliate ("**Intermolecular**" or "**IM**"). Elpida and IM are sometimes referred to herein individually as a "party" and collectively as the "parties".

BACKGROUND

Whereas, IM and Elpida began working on a development program directed at a Dynamic Random Access Memory ("**DRAM**") and [*] pursuant to the Demonstration Agreement executed by the parties on November 13, 2007 ("**Demonstration Agreement**") and continued to work in these areas pursuant to the letter agreement executed by the parties on February 27, 2008 ("**Letter Agreement**") while the parties negotiated this Agreement to define the terms and conditions for continued collaboration between the parties for the development of advanced memory solutions;

Whereas, the parties desire to engage in Collaborative Development Programs related to semiconductor memory products in the Field on the terms and conditions set forth below.

Now therefore, the parties agree as follows:

1. DEFINITIONS

1.1 "**Affiliate**" shall mean any entity controlling, controlled by or under common control with, a party to this Agreement. For purposes of this Agreement, the direct or indirect ownership of more than fifty percent (50%) of the outstanding securities of, or voting interest in, an entity shall be deemed to constitute control.

1.2 "**Background IP**" shall means all Intellectual Property Rights that are (i) owned, licensed or otherwise solely controlled by a party or its Affiliates as of November 13, 2007; or (ii) created, conceived or reduced to practice by a party' s or its Affiliates' employees, contractors or agents without reliance upon, use of, or benefit of the other party' s or its Affiliate' s Background IP or Confidential Information.

1.3 "**CDP Developed Technology**" shall mean any Intellectual Property Rights developed pursuant to the Demonstration Agreement, Letter Agreement or an agreed upon Collaborative Development Program, including the Critical Parameter Set.

1.4 "**CDP Field**" shall mean [*] DRAM semiconductor integrated circuit memory chips.

1.5 "**Collaborative Development Program**" or "**CDP**" shall mean the Services that are conducted by Elpida and IM in accordance with a respective Development Plan.

1.6 "**Confidential Information**" shall mean any information disclosed by one party to the other in connection with this Agreement, whether in electronic, written, graphic, oral, machine readable or other tangible or intangible form, that is marked or identified at the time of disclosure as "confidential" or "proprietary" or in some other manner so as to clearly indicate its confidential nature. The

deliverables provided by one party to another party under the CDP, and materials, extracts, notes, analyses, summaries or minutes between the parties from which the substance of confidential information can be inferred or otherwise understood, shall be considered Confidential Information of the disclosing party. Except as specifically provided in Section 6 below, any terms and conditions of this Agreement shall constitute Confidential Information.

1.7 "**Critical Parameter Set**" or "**CPS**" shall mean a combination of the material, material stack, process conditions and process integration resulting from the Collaborative Development Program that meet or have the best chance to meet the specification defined by Elpida including reasonable variations and technical equivalents of the same. The CPS shall be defined at the end of the Initial Term of the relevant CDP and supplemented at the end of any extended development periods between the parties.

1.8 "**Dry Workflow**" shall mean [*] tools using HPC Technology, including, but not limited to, [*] and [*].

1.9 "**Field**" shall mean technologies, methods and embodiments for materials, processes, apparatus, process integration, and device integration, or any combination thereof, used for the research, development, commercialization or manufacturing of integrated circuits.

1.10 "**FTE**" shall mean an employee or contractor assigned to a CDP based on approximately one hundred sixty-six hours of professional services performed by one person during a one month period, or the same number of hours in aggregate performed by two or more persons during a one month period.

1.11 "**HPC Technology**" shall mean all techniques, methodologies, processes, test vehicles, synthetic procedures, technology, systems, or combination thereof, without reference to any Elpida Confidential Information, used for the simultaneous, parallel, or rapid serial: (i) design, (ii) synthesis, (iii) processing, (iv) process sequencing, (v) process integration, (vi) device integration, (vii) analysis, or (viii) characterization of more than two (2) compounds, compositions, mixtures, processes, or synthesis conditions, or the structures derived from such on a single wafers. It is understood that such test vehicles include physical and or electrical characterization devices such as test structures or chips, used in the design, process development, manufacturing process qualification, and manufacturing process control of integrated circuit devices, but do not include test wafers previously used in research and development using nominally uniform processing of a wafer. It is also understood that HPC Technology does not include the use of commercially available equipment in commercial manufacturing for nominally uniform processing of one or more identical integrated circuits on a single substrate, or the use of such equipment in research and development for nominally uniform processing of one or more integrated circuits on a single substrate. For the avoidance of doubt, HPC Technology does not include Intellectual Property Rights in and to Elpida Inventions and IM Inventions (defined in Section 3.3 below) or Background IP of Elpida.

1.12 "**Informatics Software**" shall mean the IM software platform enabling the operation of the Dry and Wet Workflows and the gathering and sharing of CDP related information through a web-based interface.

1.13 "**Initial Term**" shall mean the duration of the development program as set forth in Section 9.1.

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1.14 "**Intellectual Property Rights**" shall mean all U.S. and foreign rights in and to all (a) patents and patent applications, including all divisions, substitutions, continuations, continuation-in-part applications, and reissues, re-examinations and extensions thereof,

(b) copyrights and moral rights, (c) unpatented information, trade secrets, know-how, invention disclosures, engineering notebooks, confidential information, data, or materials, (d) mask work rights, and (e) any other intellectual or other proprietary rights of any kind now known or hereafter recognized in any jurisdiction.

1.15 "**Product**" shall mean a product containing one or more semiconductor integrated circuit memory chips manufactured by or for Elpida, an Elpida Affiliate or Third Party Licensee, including through contract manufacturers, utilizing the CDP Developed Technology, including all derivatives, modifications, improvements and enhancements thereof, or containing any device designs or architectures resulting from the CDP. Product may be delivered to its customer in any form including without limitation, wafer form, packaged and unpackaged Products and further include any Products manufactured by Elpida or its Affiliate for providing foundry services to its customer.

1.16 "**Services**" shall mean services that IM and/or Elpida employees perform under a CDP pursuant to the mutually agreed upon Development Plan.

1.17 "**Third Party**" shall mean any person or entity other than Elpida and its Affiliates, IM and its Affiliates, and their permitted assigns.

1.18 "**Third Party Licensee**" shall mean an entity other than any Elpida Affiliate which is an integrated circuit manufacturer or designer to whom Elpida grants a license or sublicense in and to all or a portion of the CDP Developed Technology pursuant to Section 3.5.2.

1.19 "**Wet Workflows**" shall mean [*] tools using HPC Technology, including, but not limited to, [*] and [*].

2. COLLABORATIVE DEVELOPMENT PROGRAM

2.1 **Collaborative Development Program**. Subject to the terms and conditions set forth herein, Elpida and IM will conduct CDP(s) in accordance with an agreed upon written plan describing the Services to be conducted by each party and the target specification to be met through the Services ("**Development Plan**"). The Development Plan for the DRAM CDP is attached hereto as Exhibit A-1 and is hereby incorporated into this Agreement. The Service fees to support the FTE resources necessary to implement the Development Plan are set forth in the quote attached as Exhibit B and herein incorporated by reference. A Development Plan may be revised from time to time by mutual written agreement of the parties. Elpida agrees to pay the fees and royalties as set forth in Section 5 in accordance with the terms of this Agreement.

2.2 **[*] CDP**. It is the present intent of the parties to [*] the CDP (in substantially the form set forth in Exhibit A-2) once Elpida [*] and [*] the necessary [*] related to the [*] of [*] so that [*] as between Elpida and IM can be governed by Section [*]. At the request of Elpida, Intermolecular agrees to [*] in any way consistent with the terms of this Agreement. If Elpida is unable to [*] within [*] after the Effective Date and the parties cannot agree on [*] CDP within [*] of said [*] period, then the [*] CDP [*] to this Agreement and the work between Elpida and IM under this Agreement shall continue with respect to the DRAM CDP only and the [*]

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quarterly fees beginning on [*] set forth in Exhibit B will be reduced by [*] per quarter for a total reduction of [*]. If the parties are able to [*] CDP to this Agreement, the parties will make the necessary changes to this Agreement, including, without limitation, the definition of CDP Field and [*] for [*].

2.3 **Access to Information**. The parties acknowledge and agree that each party shall provide the other party timely and sufficient access to information necessary to carry out their obligations under all phases of the CDP.

2.4 **Project Managers**. Each party shall by written notice to the other party appoint a principal point of contact to be its project manager for each CDP, who shall coordinate and act as a liaison with the other party with respect to the respective Development Plan ("**Project Manager**"). A party may from time to time change its Project Manager upon written notice to the other party.

2.5 **Elpida Engineers at IM**. IM shall provide space at IM' s facilities for up to [*] Elpida engineers. Elpida shall notify IM at least [*] days in advance if Elpida desires to use such allotted space, such notification shall include the number of engineers and the anticipated duration of their stay at IM.

2.6 **Development Records**. Elpida and IM shall maintain records of the CDP and related Services, or cause such records to be maintained, in sufficient detail and in good scientific manner as will properly reflect all work done and results achieved in the performance of the Development Plan, including information sufficient to establish dates of conception and reduction to practice of inventions.

3. IP OWNERSHIP AND LICENSES

3.1 **Background IP**. Each party shall continue to own all of its own Background IP.

3.2 **HPC Technology and Derivatives**. IM shall own all right, title and interest in and to HPC Technology and all HPC Technology improvements, derivatives and modifications developed by either party or both parties during the course of any CDP or based on IM provided tools, software or information enabling the use of HPC Technology ("HPC Derivatives"). Elpida hereby assigns, and agrees to assign to IM in the future Intellectual Property Rights in and to HPC Derivatives when first fixed in a tangible medium or reduced to practice, as applicable. For the avoidance of doubt, HPC Derivatives do not include Intellectual Property Rights in and to Elpida Inventions and IM Inventions (defined in Section 3.3 below).

3.3 **CDP Developed Technology**.

3.3.1 **By Elpida**. Elpida will own all right, title and interest, including Intellectual Property Rights, in CDP Developed Technology that is a (a) [*], (b) [*] and (c) [*], and (d) [*] (collectively, "**Elpida Inventions**"), regardless of creator. IM hereby assigns, and agrees to assign to Elpida in the future all of its right, title and interest, including Intellectual Property Rights, in and to any Elpida Inventions when any such Intellectual Property Rights are first fixed in a tangible medium or reduced to practice, as applicable.

3.3.2 **By IM**. IM shall possess all right, title, and interest, including Intellectual Property Rights, in any CDP Developed Technology that is [*] (collectively, "**IM Inventions**"),

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regardless of creator. Elpida hereby assigns, and agrees to assign to IM in the future Intellectual Property Rights in and to any IM Inventions when any such Intellectual Property Rights are first fixed in a tangible medium or reduced to practice, as applicable.

3.3.3 **Joint**. IM and Elpida shall jointly possess all right, title, and interest, including Intellectual Property Rights, in any CDP Developed Technology that is not determined in ownership through the application of Section 3.3.1 or 3.3.2. Such CDP Developed Technology shall be [*] (collectively, "**Joint Inventions**"), regardless of creator, each party having equal ownership interest therein.

3.4 **Cooperation**. Each party agrees to execute all papers, including patent applications and invention assignments, and otherwise agrees to assist the other party, as reasonably required and at the other party' s reasonable expense, to perfect in the other party the rights, title and other interests in their respective inventions owned by the other party under this Agreement. In addition, each party agrees to

notify the other party within a reasonable time when an invention disclosure is submitted by an employee or contractor of that party that may be owned by the other party under Sections 3.2 and/or 3.3 above.

3.5 **Licenses to Elpida**. Subject to the terms and conditions of this Agreement, IM hereby grants Elpida, within the CDP Fields, a worldwide, exclusive (subject to any applicable provisions in Sections 3.9, 5.3 or elsewhere in this Agreement), royalty-bearing (subject to Section 5.3), nontransferable (subject to Section 10.2) license under and to IM Inventions and Joint Inventions and any Intellectual Property Rights therein and thereto (i) to use, make, have made, import, offer to sell, sell, lease and otherwise dispose of the Products, (ii) to modify or make derivatives of the CDP Developed Technology, and (iii) to exercise the limited sublicense rights as set forth in Sections 3.5.1 and 3.5.2 below. For avoidance of doubt, this provision shall not be construed as limiting Elpida' s rights under applicable laws and regulations as the joint owner of the Joint Inventions, such as exercising any rights under patents and license them to third parties, but rather creating the exclusivity of the rights for Elpida under Joint Inventions as well as the exclusivity of the rights for Elpida under IM Inventions.

3.5.1 **Elpida Affiliates**. Subject to the terms and conditions of this Agreement, Elpida shall have the right, but not the obligation, to grant sublicenses of part or all of IM Inventions and licenses to Elpida Inventions and any Intellectual Property Rights therein and thereto to Elpida Affiliates to use, make, have made, import, offer to sell, sell, lease and otherwise dispose of the Products subject to the same terms and obligations with respect to Elpida under this Agreement.

3.5.2 **Elpida Third Party Licensees**. Subject to the terms and conditions of this Agreement, including the payment of royalties by Elpida on Third Party Products (in accordance with Section 5.3) and as long as Elpida maintains an exclusive license to the CDP Developed

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Technology, Elpida shall have the right, but not the obligation, to grant sublicenses of part or all of IM Inventions and licenses to Elpida Inventions and any Intellectual Property Rights therein and thereto to Third Parties to use, make, have made, import, offer to sell, sell, lease and otherwise dispose of Third Party Products subject to the same use restrictions and confidentiality obligations with respect to Elpida under this Agreement.

3.5.3 **Transition to Non-Exclusive License**. If Elpida does not maintain an exclusive license in accordance with Section 3.9, IM grants to Elpida, within the CDP Fields, a worldwide, non-exclusive, perpetual, non-transferable license under and to IM Inventions and any IM Intellectual Property Rights therein and thereto (i) to use, make, have made, import, offer to sell, sell, lease and otherwise dispose of the Products, (ii) to modify or make derivatives of the CDP Developed Technology, and (iii) to exercise the limited sublicense rights as set forth in Sections 3.5.1 above. In such case, Elpida shall have the right to grant sublicenses of part or all of IM Inventions and any IM Intellectual Property Rights therein and thereto only to Third Parties who manufacture Products based on Elpida Background IP or Elpida Inventions in accordance with Section 3.5.2. above. In addition, if Elpida desires to grant sublicenses to all or part thereof to any other Third Party, the parties agree to discuss such arrangement, however, neither party is obligated to enter into an agreement regarding the same.

3.5.4 **Non-Exclusive Joint IP License**. If Elpida does not maintain an exclusive license in accordance with Sections 3.9 or 5.3.1, Elpida and IM grants to the other a worldwide, non-exclusive, perpetual, non-transferable license, including sublicense rights, without restrictions under and to each party' s Intellectual Property Rights in Joint Inventions without any right of accounting. If Elpida does not commercialize the CDP Developed Technology under this Agreement and Elpida sub-licenses Joint Inventions together with IM Inventions and any Intellectual Property Rights therein and thereto to a Third Party to make Products then the Royalty terms from Section 5.3 shall apply; however, the parties agree to negotiate in good faith, such agreement subject to their sole discretion, at the request of Elpida. For avoidance of doubt, Elpida has no obligation under Section 5.3 in the case that Elpida only licenses Elpida Inventions and/or Joint Inventions and any Intellectual Property Rights therein and thereto without IM Inventions.

3.5.5 **Limited License of Background IP**. IM agrees to grant Elpida a world-wide, non-exclusive and non-transferable license under and to IM Background IP, for which IM has the right to license without payment of a royalty to a Third Party, that is essential for Elpida, and its Affiliate and Third Party Licensees (pursuant to this Section 3.5) to exploit IM Inventions in Products in the CDP Field.

3.5.6 **Outside the CDP Field**. If Elpida desires to apply the CDP Developed Technology outside of the CDP Field, Elpida shall notify IM in writing of its interest and the parties agree to negotiate promptly and in good faith any subsequent case-by-case agreements that enable Elpida to pursue such interests.

3.6 **Enforcement**. IM shall promptly notify Elpida of its knowledge of any actual or potential, commercially material infringement by any Third Party of the Joint Inventions at any time, and IM Inventions while Elpida maintains an exclusive license under the Agreement.

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3.6.1 **Exclusive License**. IM agrees and confirms that Elpida shall have the exclusive right, but not the obligation to enforce any Intellectual Property Rights in and to IM Inventions and Joint Inventions while Elpida maintains an exclusive license. In this case, IM agrees not to challenge joinder of that party to the litigation. Elpida may resolve any action or negotiation initiated by Elpida in its sole discretion, provided that any such resolution shall not include any stipulation or agreement that the applicable IM Intellectual Property Rights are invalid or non-existent except with IM' s prior express written consent, which consent may be given or withheld in IM' s sole discretion. IM agrees to render such reasonable assistance in connection with enforcement activities described above as Elpida may request. Unless otherwise agreed by the parties, Elpida shall be responsible for and shall pay the costs of maintaining any such action.

3.6.2 **Non-exclusive License**. If at the time Elpida no longer maintains an exclusive license, either party, in it sole discretion may undertake an action against an infringing Third Party under Joint Inventions and the other party agrees not to challenge joinder in such an action involved Joint Inventions; provided, however, that such other party is not obligated to assist in such enforcement absent a court order. Prior to bringing such an infringement action on Joint Invention, the parties agree to confer and determine whether a joint action or other approach is in their mutual agreement. The preceding sentence does not limit either party' s ability to bring such an infringement action in its sole discretion.

3.6.3 **Cost and Recovery Sharing**. Any damages and costs awarded or ongoing license revenue shall be subject to the Royalty obligations hereunder.

3.7 **New Materials**. IM agrees to work with Elpida' s preferred materials providers to qualify and license any New Materials developed as part of the CDP. "**New Materials**" shall mean materials developed pursuant to the Development Plan that are not available on the open market from Third Parties.

3.8 **Reservation of Rights**. Except for the rights expressly granted by each party to the other under this Agreement, all other rights are reserved.

3.9 **Exclusivity**.

3.9.1 **Continuing CDP Services**. As long as Elpida and IM are working together pursuant to this Agreement and any extension thereof in one of the CDP Fields, the license granted from IM to Elpida under Section 3.5 above will be exclusive for the CPS in that CDP Field for which Services are being performed.

3.9.2 **CDP Services Terminated**. If Elpida and IM stop working together pursuant to this Agreement or any extensions thereof in one of the CDP Fields, the exclusivity under Section 3.9 for that CDP Field shall expire [*] from the termination of activity in the CDP Field (unless the program is terminated or cancelled by Elpida pursuant to Section 5.3 or Section 9.2, respectively, in which case the exclusivity shall expire immediately) unless Elpida has moved their Products into high volume manufacturing, in which case the license will remain exclusive for the CPS in that CDP Field as long as Elpida meets the minimum quarterly volumes ("MQV"). The MQV shall be [*] Products ([*] Products) shipped per quarter in the first full quarter following the termination of the activity in the CDP Field and shall include Elpida Products and Third Party Products for which a royalty is being paid. If Elpida does not meet the MQV then the license under Section 3.5 above shall become a non-exclusive license pursuant to Section 3.5.3. Notwithstanding the foregoing in this Section 3.9.2, in the event that Elpida has met MQV for at least [*] years and fails to meet MQV during a specific quarter in which case Elpida may make a

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payment equal to the difference between Royalties owed on MQV and Royalties actually accrued ("**Gap Payment**") during that quarter, Elpida may maintain its exclusivity during that quarter. Elpida may exercise such rights for a period not to exceed [*].

3.9.3 **Other Engagements**. Elpida acknowledges and agrees that nothing in this Agreement, except for the exclusivity provisions of this Section 3.9, restricts IM from engaging in development or commercialization projects with Third Parties.

4. SUBSCRIPTION AND ACCESS FEE

4.1 **HPC Workflow Subscription and Access Fee**. During the Initial Term and subject to payment by Elpida of a subscription and access fee as set forth in the quote in Exhibit B, IM will provide access, in conjunction with IM' s FTE resources and pursuant to the applicable Development Plan, to IM' s internal Dry Workflows, Wet Workflows, physical and electrical characterization capabilities, and Informatics Software ("**IM Tools and Software**") to perform the CDP Services ("**HPC Workflow Subscription and Access Fee**"). The HPC Workflow Subscription and Access Fee includes a non-transferable, worldwide license for Elpida to use HPC Technology and HPC Derivatives to the extent necessary for Elpida to carry out its obligations set forth in the Development Plan(s). The HPC Workflow Subscription and Access Fee does not confer any ownership rights to Elpida in the IM Tools and Software.

4.2 **Software License**. As part of the HPC Workflow Subscription and Access Fee, IM grants to Elpida a non-exclusive, non-transferable license to use the Informatics Software solely for the purposes of the CDP. The Informatics Software can only be used by Elpida' s employees and is not assignable or licensable by Elpida to any Third Party. The license granted hereunder includes all updates in content and the current functionality of the Informatics Software. Except for the express license granted in this Section 4.2, IM reserves all rights to itself, and does not grant to Elpida any other licenses, whether express or implied, to the Informatics Software or any intellectual property rights embodied therein or related thereto.

4.2.1 Elpida acknowledges and agrees that the features or the graphical user interface of the Informatics Software ("**User Interface**"), including, without limitation, icons, menus and screen designs, screen layouts, and command and screen sequence, are proprietary to IM and/or its licensors, and are disclosed to Elpida under a condition of confidentiality. Elpida agrees that it will not create software programs incorporating any proprietary part of the User Interface. Elpida further acknowledges that the User Interface is a copyrighted work of IM and/or its licensors.

4.2.2 Elpida agrees (i) that no ownership rights to the Informatics Software are transferred under this Agreement; (ii) not to distribute, sublicense, assign, sell, rent or otherwise transfer the Informatics Software; (iii) not to copy, in whole or in part, the Informatics Software or any documentation related to the Informatics Software; (iv) not to modify, reverse compile or reverse assemble all or any portion of the Informatics Software; (v) not to use the Informatics Software outside the limitations of the license granted; and (vi) not to create any derivative works from or related to the Informatics Software.

5. PAYMENTS

5.1 **CDP Fee Payment**. Elpida will pay IM based on the IM FTE resources allocated to the CDP in accordance with the mutually agreed upon Development Plan(s) attached as Exhibits A-1 and the quote attached as Exhibit B. In addition to the amounts set forth in the attached quote, Elpida agrees to provide or pay for necessary travel of Elpida employees, consumables (such as wafers, mask sets, materials, and targets), outsourced metrology and characterization not supported internally by IM, and other mutually agreed out-of-pocket costs to support the CDP Services.

5.2 **HPC Workflow Subscription and Access Fee**. Elpida will pay IM the HPC Workflow Subscription and Access Fee set forth in the quote attached as Exhibit B and described above in Section 4.1 unless Elpida cancels this Agreement by [*] pursuant to Section 9.2.

5.3 **Royalties**. Elpida acknowledges and agrees that it will pay IM royalties for all Elpida Products and Third Party Products shipped ("**Royalties**") except as otherwise set forth in this Section 5.3, whether those products are sold, leased or otherwise disposed of. The parties agree to negotiate in good faith the Royalties by [*] ("**Royalty Determination Date**") and set forth said agreed upon Royalties in Exhibit C, which shall be incorporated into this Agreement as if set forth as of the Effective Date. If the parties reach agreement on the Royalties by the Royalty Determination Date, then the rest of this Section does not apply and Elpida does not need to make an election as set forth below. If the parties are unable to reach agreement on the Royalties by the Royalty Determination Date, then Elpida may either i) pursue the buyout option set forth in Section 5.3.1 or ii) forfeit its license as set forth in Section 5.3.2. Elpida shall make the decision to pursue the buyout option or forfeit its license by the Royalty Determination Date and shall inform IM pursuant to the notice provisions of this Agreement. If Elpida does not inform IM of its decision by the Royalty Determination Date, then Elpida shall be deemed to have elected the forfeiture option under Section 5.3.2.

5.3.1 **Buyout Option**. If Elpida and IM cannot reach agreement on the Royalties then Elpida may terminate the Agreement and maintain a perpetual, non-exclusive, royalty free license under and to IM Inventions and any IM Intellectual Property Rights therein and thereto (i) to use, make, have made, import, offer to sell, sell, lease and otherwise dispose of the Products, (ii) to modify or make derivatives of the CDP Developed Technology, and (iii) to sublicense the same to Elpida Affiliates or to Third Parties who manufacture Products based on Elpida Background IP or Elpida Inventions by paying IM the following amounts: a) the [*] and b) a one time up front, pre-paid royalty of [*] ("**Buyout Option**"). The amounts set forth in the preceding sentence shall be paid by Elpida to IM within [*] days of the Royalty Determination Date. If Elpida elects this Buyout Option then the IP Ownership terms of Section 3.3 shall be modified for Intellectual Property Rights conceived after the Royalty Determination Date so that as between the parties, (a) Intermolecular shall own Intellectual Property Rights first conceived after the term of the CDP by its employees or contractors, and (b) Elpida shall own Intellectual Property Rights first conceived after the term of the CDP by its employees or contractors.

5.3.2 **Forfeit**. If the parties have not reached agreement on the Royalties and Elpida does not exercise its Buyout Option by the Royalty Determination Date, then this Agreement shall terminate and the license from IM to Elpida set forth Section 3.5 (and any other licenses set forth in this Agreement) shall terminate. Within [*] days of such termination, Elpida shall return to IM or certify destruction of all Confidential Information provided to Elpida by IM or produced by Elpida based on CDP Developed Technology, except for Confidential Information incorporated in Elpida Inventions. Under this option, Elpida will not receive a refund for the Service fees paid up to the Royalty Determination Date and must pay the remaining CDP Fees and the HPC Workflow Subscription and Access Fees due under this Agreement. The full amount remaining in the CDP Fees and the HPC Workflow Subscription and Access Fees shall

be invoiced by IM upon such termination and Elpida shall pay the full amount to IM within [*] days of the invoice date.

5.4 **Third Party Royalties**. Each party shall be responsible for all of its own costs of commercializing products or licensing Intellectual Property Rights, including any payments to Third Parties for work done by such Third Parties or for licenses necessary for the manufacture, sale, or use of Products by a party or its Affiliates or sub-licensees.

5.5 **Payments**. IM shall invoice Elpida on the dates set forth in Exhibit B and Elpida shall pay IM within [*] days of such invoice unless the Agreement is terminated pursuant to Section 5.3, then the amounts shall be due as set forth in that Section. [*] All payments due to IM under this Agreement shall be made by bank wire transfer as follows:

Japan International Wire Transfer		U.S. Domestic Wire Transfer	
To:	[*] [*] [*]	To:	[*]
Routing & Transit #:	[*]	Routing & Transit #:	[*]
Swift Code:	[*]		
For credit of:	[*]	For credit of:	[*]
Credit account #:	[*]	Credit account #:	[*]
By order of:	[Name of Sender]	By order of:	[Name of Sender]

or another U.S. bank account designated by IM. All payments not paid when due shall bear simple interest at a rate of [*] percent ([*]%) per month or the highest rate allowed by law, whichever is less.

5.6 **Taxes**. The fees and royalty rates specified in this Agreement are exclusive of any sales, use, excise, value-added or similar taxes, and of any export and import duties, which may be levied upon or collectible by IM as a result of the CDP Services, or the licenses granted in this Agreement or its Exhibits. Elpida agrees to pay and otherwise be fully responsible for any such taxes and duties, except that if necessary, Elpida shall withhold from amounts otherwise payable to IM, and pay on IM' s behalf, withholding taxes that may be required by applicable law to be withheld by Elpida and Elpida shall provide IM with tax receipts to establish that all such taxes have been paid and are otherwise available to IM for credit for U.S. income tax purposes or as otherwise available to IM.

5.7 **Currency Conversions**. If any currency conversion shall be required in connection with the calculation of royalties hereunder, such conversion shall be made using the medium exchange rate of buying and selling exchange rates for conversion of the foreign currency into U.S. Dollars, quoted for current transactions reported in The Wall Street Journal for the last business day of the calendar quarter to which such payment pertains.

5.8 **Records; Inspection**. Elpida shall keep complete, true and accurate books of account and records on its own behalf and on behalf of the Elpida Affiliates for the purpose of determining the royalty amounts payable under this Agreement. Such books and records shall be kept at Elpida or its designated Affiliate for at least [*] years following the end of the calendar quarter to which they pertain. Such records will be open for inspection during such [*] year period by an independent auditor who is reasonably acceptable to the parties and agrees to be bound to confidentiality protections of similar scope to those set out in Section 6 hereof, solely for the purpose of verifying royalty statements hereunder. Such auditor shall be instructed to report only as to whether there is a discrepancy, and if so, the amount

of such discrepancy. Such inspections may be made no more than once each calendar year, at reasonable times and on reasonable notice. Inspections conducted under this Section shall be at the expense of IM, unless a variation or error producing an increase exceeding [*] percent ([*]%) of the royalties payable for any period covered by the inspection is established and confirmed in the course of any such inspection, whereupon all reasonable costs relating to the inspection for such period and any unpaid amounts that are discovered will be paid promptly by Elpida. Further, IM will have the right thereafter to conduct additional inspections from time to time for reasonable cause. Each party agrees to hold in confidence pursuant to Section 6 all information concerning royalty payments and reports, and all information learned in the course of any audit or inspection, except to the extent necessary for that party to reveal such information in order to enforce its rights under this Agreement or if disclosure is required by law.

6. CONFIDENTIALITY

6.1 **Confidentiality**. Except as otherwise expressly provided herein, the parties agree that the receiving party shall not, except as expressly provided in this Section 6, disclose to any Third Party, or use for any purpose, any Confidential Information furnished to it by the disclosing party pursuant to this Agreement, except in each case to the extent that it can be established by the receiving party by competent proof that such information:

(a) was already known to the receiving party, other than under an obligation of confidentiality, at the time of disclosure;

(b) was generally available to the public or otherwise part of the public domain at the time of its disclosure to the receiving party;

(c) became generally available to the public or otherwise part of the public domain after disclosure and other than through any act or omission of the receiving party in breach of this agreement;

(d) was independently developed by the receiving party without use of, or reference to, the other party' s confidential information, as demonstrated by documented evidence prepared contemporaneously with such independent development; or

(e) was disclosed to the receiving party, other than under an obligation of confidentiality, by a Third Party authorized and entitled to disclose such information to others.

6.2 **Permitted Use and Disclosures**. Notwithstanding the restrictions of Section 6.1, each party hereto may (a) use Confidential Information disclosed to it by the other to the extent necessary for that party to perform its obligations set forth in the CDP and (b) use or disclose Confidential Information disclosed to it by the other party to the extent such use or disclosure is reasonably necessary in (i) exercising the rights and licenses granted hereunder, (ii) prosecuting or defending litigation, (iii) complying with applicable laws, governmental regulations or court orders or submitting information to tax or other governmental authorities (including the Securities and Exchange Commission), or (iv) preparing, filing and prosecuting patent applications; in each case, provided that if a party is required to make any such disclosure, other than pursuant to a confidentiality agreement, it will give reasonable advance notice to the other party of such disclosure and will use reasonable efforts to secure confidential treatment of such information (whether through protective order or otherwise), except to the extent inappropriate with respect to patent applications. It is understood that either party may also disclose the Confidential Information of the other party upon receipt of the written consent to such disclosure by a duly authorized representative of the other party.

6.3 **Nondisclosure of Terms**. Each of the parties hereto agrees not to disclose the terms of this Agreement to any Third Party without the prior written consent of the other party hereto, except to such party' s attorneys, accountants, advisors, investors and financing sources and their advisors and

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others on a need to know basis under circumstances that reasonably ensure the confidentiality thereof, to the extent required by law, in connection with the enforcement of this Agreement or rights under this Agreement or in connection with a merger, acquisition, financing transaction or proposed merger, acquisition or financing transaction.

6.4 **Firewall Protection**. In addition to conforming to the confidentiality provisions in this Section 6, the following shall apply:

6.4.1 IM will construct an IP firewall as described below in this Section around IM employees providing Services to Elpida in connection with CDP Services. Only such employees of IM will be allowed to have access to such Elpida confidential and proprietary information and information distribution will be based strictly on a need-to-know basis. Such employees of IM shall solely use such Elpida confidential and proprietary information in providing Services to Elpida. Physical copies of Elpida confidential and proprietary information shall be securely locked when not in use such that only those IM employees providing such Services shall have access to such information. The procedure set forth in this Section is not intended to supersede in whole or in part the terms of Section 3.2; specifically, IM shall have the right, without obligation to Elpida, to sell, license and sublicense any improvements, changes, or modifications to HPC Technology.

6.4.2 Elpida will construct an IP firewall as described below in this Section around Elpida employees who have access to IM' s facilities. Elpida shall instruct its employees and agrees that they will remain in designated areas within IM' s facilities as defined by IM from time to time. Elpida agrees that its employees will only use IM' s HPC Technology, including, the IM Tools and Software for the purpose defined in any applicable CDP. Such employees of Elpida shall only disclose such IM confidential and proprietary information to other Elpida employees who have a need to know.

6.5 **Residuals**. Notwithstanding anything herein to the contrary, neither party will be in breach of this Agreement or the MUTUAL NON-DISCLOSURE AGREEMENT executed between the parties as of August 15, 2007 based on the use of Residuals by employees or directors (who had authorized access) for any purpose, including without limitation use in development, manufacture, promotion, sale and maintenance of its products and services; provided that this right to Residuals does not represent a license under any valid patents, copyrights or other Intellectual Property Rights of the disclosing party. The term "Residuals" means any information that is retained in the unaided memories of the receiving party' s employees who have had access to the disclosing party' s information pursuant to the terms of this Agreement. An employee' s memory is unaided if the employee has not intentionally memorized the information for the purpose of retaining and subsequently using or disclosing it. Nothing in this Section 6.5 is intended to or will modify the Royalty obligations of Elpida for Products.

7. LIMITED REPRESENTATIONS AND WARRANTIES

7.1 **By IM**. IM represents and warrants that: (a) it has the right and authority to enter into this Agreement, and to fully perform its obligations hereunder; (b) this Agreement is a legal and valid obligation binding upon it and enforceable in accordance with its terms; and (c) IM owns, or possesses a valid and enforceable license to use, and has full power and authority to license or sublicense, as the case may be, all IM' s Intellectual Property Rights licensed or sublicensed to Elpida pursuant to this Agreement, including, without limitation, HPC Technology and IM Inventions.

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7.2 **By Elpida**. Elpida represents and warrants that: (a) it has the right and authority to enter into this Agreement, and to fully perform its obligations hereunder; and (b) this Agreement is a legal and valid obligation binding upon it and enforceable in accordance with its terms.

7.3 **Disclaimer**. IM and Elpida specifically disclaim any representation, warranty or guarantee that the CDP or the use of HPC Technology will be successful, in whole or in part. It is understood that the failure of the parties to successfully develop and commercialize

the CDP Developed Technology in the course of the CDP or any technology developed through use of HPC Technology shall not constitute a breach of any representation or warranty or other obligation under this Agreement. EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS AGREEMENT, ELPIDA AND INTERMOLECULAR MAKE NO REPRESENTATIONS AND EXTEND NO WARRANTIES OR CONDITIONS OF ANY KIND, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO BACKGROUND IP, CDP DEVELOPED TECHNOLOGY, HPC TECHNOLOGY OR ANY INFORMATION DISCLOSED HEREUNDER, OR ANY DELIVERABLES PROVIDED HEREUNDER, AND HEREBY EXPRESSLY DISCLAIM ANY WARRANTIES OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE, OR VALIDITY OF ANY CDP DEVELOPED TECHNOLOGY OR HPC TECHNOLOGY, PATENTED OR UNPATENTED, OR NON-INFRINGEMENT OF THE INTELLECTUAL PROPERTY RIGHTS OF THIRD PARTIES.

8. LIMITATION OF LIABILITY

EXCEPT FOR A BREACH BY EITHER PARTY OF THEIR RESPECTIVE CONFIDENTIALITY OBLIGATIONS UNDER SECTION 6 OR A BREACH OF ANY LICENSE RESTRICTIONS, UNDER NO CIRCUMSTANCES WILL EITHER PARTY BE LIABLE TO THE OTHER UNDER ANY CONTRACT, STRICT LIABILITY, NEGLIGENCE OR OTHER LEGAL OR EQUITABLE THEORY, FOR ANY LOST PROFITS, LOST BUSINESS OPPORTUNITY, INJURY TO BUSINESS REPUTATION OR EQUIPMENT DOWNTIME, OR FOR ANY CONSEQUENTIAL, INCIDENTAL, INDIRECT OR SPECIAL DAMAGES OF ANY KIND IN CONNECTION WITH THE SUBJECT MATTER OF THIS AGREEMENT, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, AND IN NO EVENT WILL EITHER PARTY' S AGGREGATE LIABILITY TO THE OTHER EXCEED THE AMOUNTS PAID OR PAYABLE BY ELPIDA TO INTERMOLECULAR IN THE TWELVE (12) MONTHS PRECEDING THE CLAIM.

9. TERMINATION

9.1 **Term of Agreement**. The Initial Term of this Agreement shall be from the Effective Date until [*] and, unless terminated or canceled as provided in Section 5.3 or Section 9 of the Agreement, shall remain in full force and effect for the Initial Term and any extensions thereof agreed to in writing by mutual written agreement of the parties; provided that if the Agreement is not terminated prior to the end of the Initial Term, then irrespective of any expiration or termination of this CDP Agreement, other than termination by IM for cause, Elpida shall have the right to continue developing, manufacturing and having manufactured, distributing and selling current or future Elpida Products pursuant to the licenses and subject to the payment of the royalties set forth in this Agreement. The parties agree that the terms of Section 3 (IP OWNERSHIP AND LICENSES) shall be retroactive to [*] and therefore, the terms of this Agreement shall define ownership of any Intellectual Property Rights developed pursuant to the Demonstration Agreement and the Letter Agreement. The parties hereby agree that this Initial Term is not cancellable or terminable by either party except as set forth in Section 5.3, 9.2, 9.3 and 9.4 below.

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9.2 **Elpida Cancellation Option**. Elpida may cancel this Agreement up to [*] in its sole discretion by providing notice to IM. If Elpida does not cancel this Agreement by [*] then it shall continue according to the terms of this Agreement without right of cancellation during the Initial Term, including the full payment by Elpida of the amount set forth in Exhibit B. If Elpida elects to cancel the Agreement pursuant to this Section then i) Elpida shall not be required to make any payment to IM including without limitation, any fee for Services performed hereunder and any HPC Workflow Subscription and Access Fee (except the amounts and obligations set forth in the Letter Agreement), and ii) the license from IM to Elpida set forth Section 3.5 (and any other licenses set forth in this Agreement) shall terminate and Elpida shall return to IM or certify destruction of all Confidential Information provided to Elpida by IM or produced by Elpida based on CDP Developed Technology, except for Confidential Information incorporated in Elpida Inventions.

9.3 **Termination for Breach**. Either party to this Agreement may terminate this Agreement in the event the other party shall have materially breached or defaulted in the performance of any of its material obligations hereunder, and such default shall have continued for [*] days after written notice thereof was provided to the breaching party by the non-breaching party. Any termination shall become

effective at the end of such [*] day period unless the breaching party (or any other party on its behalf) has cured any such breach or default prior to the expiration of the [*] day period.

9.4 **Termination for Insolvency**. If voluntary or involuntary proceedings by or against a party are instituted in bankruptcy under any insolvency law, or a receiver or custodian is appointed for such party, or proceedings are instituted by or against such party for corporate reorganization, dissolution, liquidation or winding-up of such party, which proceedings, if involuntary, shall not have been dismissed within [*] days after the date of filing, or if such party makes an assignment for the benefit of creditors, or substantially all of the assets of such party are seized or attached and not released within [*] days thereafter, the other party may immediately terminate this Agreement effective upon notice of such termination.

9.5 **Effect of Termination**.

9.5.1 **Accrued Rights and Obligations**. Termination of this Agreement for any reason shall not release either party hereto from any liability or obligation that, at the time of such termination, has already accrued to the other party or that is attributable to a period prior to such termination, nor shall it preclude either party from pursuing any rights and remedies it may have hereunder or at law or in equity with respect to any breach of this Agreement., except as set forth in Section 9.2.

9.5.2 **Return of Confidential Information**. Upon any termination of this Agreement, IM and Elpida shall promptly destroy or return to the other all Confidential Information received from the other party other than as required to enforce or defend any continuing or surviving rights and obligations under this Agreement.

9.6 **Survival**. If this Agreement terminates for any reason, then Sections 2.6, 3, 5, 6, 7, 8, 9, and 10 of this Agreement shall survive, except that Section 3.5, 3.6, 3.8, and 3.9 shall not survive if the agreement is terminated according to Section 5.3 or cancelled pursuant to Section 9.2.

10. MISCELLANEOUS

10.1 **Governing Laws and Dispute Resolution**. This Agreement shall be governed by and construed in accordance with the laws of the state of New York in the United States, without regard to its

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choice of law rules. All disputes between the parties in connection with or arising out of this Agreement shall first be discussed in good faith between the parties in order to try to find an amicable solution. If no solution can be found to settle the dispute, then such dispute shall be finally settled by arbitration in accordance with the default rules and procedures of American Arbitration Association sitting in Hawaii and conducted in English. Within [*] days of notice that a party wants to submit a dispute to arbitration, the parties shall each select one independent arbitrator and will attempt to mutually agree upon a third independent arbitrator each arbitrator will have expertise in the semiconductor industry and will not be an employee, affiliate or contractor for either party. If the Parties are unable to agree on the third arbitrator within [*] days, the two arbitrators shall select the third arbitrator within [*] days. If the amount in dispute is less than [*], then the parties shall agree upon a single arbitrator meeting the above conditions within [*] days of the notice of arbitration or such arbitrator shall be chosen by AAA if the parties cannot agree. The arbitrators shall determine what discovery will be permitted consistent with the goal of limiting the costs and time for such a proceeding. The parties and arbitrators shall use all reasonable efforts to complete any arbitration subject to this Section within [*] months from the selection of arbitrators. The parties agree that any award of damages shall not include punitive, special, consequential, or indirect damages except as specifically allowed in this Agreement and shall comply with the limitation of liability provisions set forth herein. The arbitrators' decision shall be in a detailed writing setting forth the reasons for their decision and shall be provided concurrently to each party. The arbitration award shall be final and binding on the Parties. Unless otherwise agreed to by the parties, each party shall pay one-half of the arbitration fees and expenses and shall bear all of its own expenses in connection with the

arbitration. Notwithstanding any of the foregoing, either party shall have the right to seek, at its own cost and expenses, preliminary and temporary injunctive relief pending resolution of the dispute via arbitration. The parties expressly disclaim the application of the United Nations Convention on the International Sale of Goods to this Agreement.

10.2 **Assignment**. Neither party shall assign or transfer this Agreement either voluntarily or by operation of law, in whole or in part, without the prior written consent of the other party, and any attempt to do so will be null and void; provided, however, that either party may assign this Agreement without such consent, to a parent, subsidiary, or Affiliate, or to a successor in interest to its business (whether by merger, acquisition, consolidation, change of control, reorganization or sale of substantially all of its assets). Subject to the foregoing sentence, this Agreement will be binding on and inure to the benefit of the parties and their respective successors and permitted assigns.

10.3 **Drafting**. In interpreting and applying the terms and provisions of this Agreement, the parties agree that no presumption shall exist or be implied against the party that drafted such terms and provisions.

10.4 **Waiver**. It is agreed that no waiver by either party hereto of any breach or default of any of the covenants or agreements herein set forth shall be deemed a waiver or an expectation of non-enforcement as to any subsequent and/or similar breach or default.

10.5 **Non-Solicitation**. During the Term of this Agreement neither IM nor Elpida will individually, or in concert with or through any other person, actively recruit or solicit employment of any scientific or technical personnel of the other party. The foregoing restriction shall not apply to, or be breached by: (i) advertising open positions, participating in job fairs, and conducting comparable activities to recruit skilled or unskilled help from the general public, or responding to individuals contacted through such methods, (ii) responding to unsolicited inquiries about employment opportunities or possibilities from job placement agencies or other agents acting for unidentified principals, or (iii) responding to unsolicited inquiries about employment opportunities from any individual.

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

10.6 **Severability**. In the event that any provision of this Agreement becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Agreement shall continue in full force and effect to the fullest extent permitted by law without said provision, and the parties shall amend the Agreement to the extent feasible to lawfully include the substance of the excluded term to as fully as possible realize the intent of the parties and their commercial bargain.

10.7 **Independent Contractors**. The relationship of the parties hereto is that of independent contractors. Each party shall not be deemed to be an agent, partner, joint venture or legal representative of the other for any purpose as a result of this Agreement or the transactions contemplated thereby.

10.8 **No Press Releases or Public Statements**. Neither party shall issue any press release or otherwise make any public statement regarding the existence or terms and conditions of this Agreement or the business between the parties, nor use the other party' s name in any advertising or promotional materials or publication or public statement of any kind, without such other party' s prior written consent given in such party' s sole and absolute discretion.

10.9 **Compliance with Law**. In exercising their rights under the license granted hereunder, each party shall fully comply in all material respects with the requirements of any and all applicable laws, regulations, rules and orders of any governmental body having jurisdiction over the exercise of rights under this Agreement. Without limiting the foregoing, each party agrees to comply with all applicable export and re-export control laws and regulations maintained by the United States or Japanese governments.

10.10 **Notices**. All notices, requests and other communications hereunder shall be in writing and shall be hand delivered, or sent by express delivery service with confirmation of receipt, or sent by registered or certified mail, return receipt requested, postage prepaid, or by electronic transmission (with written confirmation copy by registered first-class mail), in each case to the attention of the chief legal officer at

the respective address indicated above. Any such notice shall be deemed to have been given when received. Either party may change its address by giving the other party written notice, delivered in accordance with this Section.

10.11 **Force Majeure**. Neither party shall lose any rights hereunder or be liable to the other party for damages or losses (except for payment obligations then owing) on account of failure of performance by the defaulting party if the failure is occasioned by war, strike, fire, earthquake, flood, lockout, embargo, act of terrorism, governmental acts, or any other reason where failure to perform is beyond the reasonable control and not caused by the negligence, intentional conduct or misconduct of the non-performing party and such party has exerted all reasonable efforts to avoid or remedy such force majeure; provided, however, that in no event shall a party be required to settle any labor dispute or disturbance.

10.12 **Headings; Construction**. The captions to the several Sections hereof are not part of this Agreement, but are included merely for convenience of reference and shall not affect its meaning or interpretation. As used in this Agreement, the word "including" means "including without limitation."

10.13 **Counterparts**. This Agreement may be executed in counterparts, each of which shall be deemed to be an original and all of which together shall be deemed to he one and the same agreement.

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

10.14 **Complete Agreement**. This Agreement, together with its Exhibits and their attachments, constitutes the entire agreement, both written and oral, between the parties with respect to the subject matter hereof, and all prior agreements respecting the subject matter hereof (including without limitation the Demonstration Agreement between the parties dated November 13, 2007 and the letter agreement between the parties dated February 27, 2008), either written or oral, express or implied, shall be abrogated, canceled, and are null and void and of no effect. No amendment or change hereof or addition hereto shall be effective or binding on either of the parties hereto unless reduced to writing and executed by the respective duly authorized representatives of Elpida and IM. The parties further agree that any additional or inconsistent terms and conditions of any purchase order, invoice or like document issued in connection with this Agreement shall be superseded in full by the terms and conditions of this Agreement and any Exhibit hereunder, and any such additional or inconsistent terms, unless specifically agreed to in writing by the parties at the time, are hereby rejected.

10.15 **Third Party Beneficiaries**. Except as expressly provided in this Agreement, there are no third party beneficiaries expressly or impliedly intended under this Agreement.

In Witness Whereof, the parties hereto have executed this document as the last date set forth below.

Elpida Memory, Inc.	**Intermolecular, Inc.**
By: /s/ Takao Adachi	By: /s/ David Lazovsky
Name: Takao Adachi	Name: David Lazovsky
Title: Director & CTO	Title: President & CEO
Date: 22.May.2008	Date: 5/17/08

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Exhibit A·1: [*] Project Phase 2

Project Manager: Imran Hashim/Sandra Malhotra

	Step	Client Deliverables	Activity	IM Deliverables	Completion Date
1	[*]	[*]	[*]	[*]	[*]
2	[*]	[*]	[*]	[*]	[*]
3	[*]	[*]	[*]	[*]	[*]
4	[*]	[*]	[*]	[*]	[*]
5	[*]	[*]	[*]	[*]	[*]
6	[*]	[*]	[*]	[*]	[*]
7	[*]	[*]	[*]	[*]	[*]
8	[*]	[*]	[*]	[*]	[*]
9	[*]	[*]	[*]	[*]	[*]
10	[*]	[*]	[*]	[*]	[*]
11	[*]	[*]	[*]	[*]	[*]
12	[*]	[*]	[*]	[*]	[*]
13	[*]	[*]	[*]	[*]	[*]
14	[*]	[*]	[*]	[*]	[*]
15	[*]	[*]	[*]	[*]	[*]
16	[*]	[*]	[*]	[*]	[*]

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Exhibit B

INTERMOLECULAR

CDP Services Subscription Quotation

Description	Qty.	Price
Collaborative Development Program Service Fee		
[*]	[*]	[*]
HPC Workflow Subscription and Access Fee		[*]
[*]	[*]	[*]
[*]		
[*]	[*]	
[*]		
[*]	[*]	
[*]		
[*]	[*]	
[*]		
[*]	[*]	
[*]		
[*]	[*]	

[*]		
[*]	[*]	
[*]		
[*]	[*]	
[*]		
[*]	[*]	
[*]		
	Program Total	[*]

[*]

Payment terms:

[*]

Payment date	[*]	[*]	[*]	[*]	[*]
Payment Amount	[*]	[*]	[*]	[*]	[*]

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Exhibit C - Royalty Terms

Elpida will pay IM Royalties for all Elpida Products and Third Party Products shipped by or for Elpida, Elpida Affiliates or licensed Third Parties according to the following Royalty schedule:

Elpida DRAM Units	0 to X Million Units	X to Y Million Units	Y to Z Million Units
Royalty Rate ([*] Per Chip)	[*]A	[*]B	[*]C

[The step-down Royalty structure including units (X, Y and Z) and Royalty rate of [*] _ per chip (A, B and C above) will be mutually agreed by Elpida and IM by September 1, 2008 per the Agreement.]

The parties agree to include a cap that resets annually (with no cumulative life-time cap) on Royalties on Elpida and Elpida Affiliate Products ("Elpida Royalty Cap"). The Elpida Royalty Cap amount shall be determined quarterly based on the prorated portion of the greater of a) [*] of Elpida' s combined total revenue for the previous [*], or b) [*] per year. For example, if the combined prior [*] revenue was [*], then the pro-rated portion of [*] would be [*] compared to the pro-rated portion of [*] which would be [*], so the cap for that quarter is [*]. For avoidance of doubt, the Elpida Royalty Cap does not apply to Elpida Royalties paid to IM for Third Party Products.

[The terms and conditions for payment and calculation of Royalties will be discussed between Elpida and IM together with those for Royalty structure.]

No later than [*] days after the end of each Elpida fiscal quarter, Elpida will issue IM a written report containing the number of royalty bearing products shipped by Elpida, all applicable Elpida Affiliates, and any licensed Third Parties during such quarter and the corresponding royalty amount to be paid to IM. Elpida will make all royalty payments within [*] days after the date of such report.

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

EXHIBIT C - ROYALTY TERMS

Elpida will pay IM Royalties for all Elpida Products and Third Party Products shipped by or for Elpida, Elpida Affiliates or licensed Third Parties according to the following Royalty schedule:

[*] Chips	[*]Units	[*]Units	[*]Units
Royalty Rate (% of Revenue)	[*]	[*]	[*]

The Royalty Rate shall be applied to Elpida, Elpida Affiliate, [*] or other Third Party "Revenue" which shall be defined as gross sales proceeds to arm' s length third party of Elpida, Elpida Affiliates, [*] (and its Affiliates) and [*] (and its Affiliates) and other Third Party (and its Affiliates) on Products (including any in-kind or other consideration), less (i) sales, excise and similar taxes (including but not limited to any value added tax) or duties; (ii) insurance, handling, shipping, and transportation; (iii) credits or repayment for rejection or return of Products when separately itemized on or included and identifiable in invoices or other documentation related to the sale of the Product; and (iv) trade or quantity discounts for sale of the Products. IM Royalties shall only be payable once in the chain of the distribution of Products, and Elpida has no obligation to pay IM Royalty more than once on a single Product. In this Exhibit C, "Affiliates" shall mean any entity controlling, controlled by or under common control with, Elpida, [*] and other Third Party, respectively, provided that, the direct or indirect ownership of more than [*] percent ([*]%) of the outstanding securities of, or voting interest in, an entity shall be deemed to constitute control. Any capitalized terms in this Exhibit C shall have the meaning set forth in the Agreement unless otherwise defined herein.

The parties agree that the Royalty payable by Elpida to IM shall be capped at [*] per year for Elpida Products, Elpida Affiliate Products, [*] Products, and [*] Products ("**Elpida and QP Cap**"). In this paragraph, [*] and [*] shall include their respective Affiliates. The Elpida and QP Cap shall reset annually and shall not have any cumulative life-time cap. The Elpida and QP Cap shall be determined annually based on the US calendar year. Elpida shall be responsible for the payment of the Royalties for the above companies. The Elpida and QP Cap does not apply to Royalties due from Elpida to IM for Third Party Products sold under license from Elpida other than for the companies specifically mentioned above.

Elpida agrees to pay IM a pre-paid Royalty in the amount of [*] ("**Pre-Paid Royalty**") on [*]. The Pre-Paid Royalty shall be applied against the Royalties owed by Elpida to IM on a dollar for dollar basis (calculated quarterly) until the Royalties owed by Elpida exceed the Pre-Paid Royalty. Once the Royalties due from Elpida to IM are in excess of the Pre-Paid Royalty, the remaining Royalties due shall be paid as set forth in this Exhibit C and the Agreement. If Elpida does not put the CDP Developed Technology into production at the [*] node or other node as separately agreed by the parties ("Target Node") and provides written notice that they do not intend to use the CDP Developed Technology at the Target Node, IM agrees to refund the entire Pre-Paid Royalty within [*] days of Elpida first shipping of the products using Target Node for which no Royalty is due.

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

No later than [*] days after the end of each Elpida fiscal quarter, Elpida will issue IM a written report containing the number of Royalty bearing Products shipped by Elpida, Elpida Affiliates, [*] and any other Third Party Licensees during such quarter and the corresponding royalty amount to be paid to IM. Elpida will make all royalty payments within [*] days after the date of such report.

Under the terms of Section 5.3 of the Advanced Memory Development Agreement between Elpida and IM having an effective date of May 22, 2008 ("**Agreement**"), the parties hereby incorporate this Exhibit C into the Agreement by executing this document on the last date set forth below.

Elpida Memory, Inc. **Intermolecular, Inc.**

By:	/s/ Takao Adachi	By:	/s/ David Lazovsky
Name:	Takao Adachi	Name:	David Lazovsky
Title:	CTO	Title:	President and CEO
Date:	Aug.18.2008	Date:	8/18/08

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

SUPPLEMENTAL JOINT DEVELOPMENT AGREEMENT
ELPIDA MEMORY, INC. - INTERMOLECULAR, INC.

This Supplemental Joint Development Agreement ("**Supplemental Agreement**") is made as of January 27, 2009 ("**Effective Date**") between Elpida Memory, Inc., a Japanese corporation operating at 2-1, Yaesu 2-chome, Chuo-ku, Tokyo 104-0028, Japan ("**Elpida**"), and Intermolecular, Inc., a Delaware corporation operating at 2865 Zanker Road, San Jose, California 95134 or designated Affiliate ("**Intermolecular**" or "**IM**"). Elpida and IM are sometimes referred to herein individually as a "party" and collectively as the "parties".

BACKGROUND

IM and Elpida continue to work together pursuant to the Advanced Memory Development Program Agreement executed by the parties on May 22, 2008 and Exhibit C - Royalty Terms executed by the parties on August 18, 2008 (collectively the "**Advanced Memory Agreement**") on solutions for next generation Dynamic Random Access Memory ("**DRAM**"). IM and Elpida desire to continue working together for the development of advanced process integration solutions and wish to enter into this Supplemental Agreement to define the terms and conditions for such continued collaboration between the parties.

Now therefore, the parties agree as follows:

TERMS AND CONDITIONS

1.0 **Term**. This Supplemental Agreement shall extend the Initial Term from [*] until [*] ("**Supplemental Term**"). The Supplemental Term shall be non-cancellable or terminable except for termination under Section 9.3 or 9.4 of the Advanced Memory Agreement.

2.0 **Operating Committee.** IM and Elpida shall establish an operating committee to determine the scope of work conducted by the parties during the Initial Term, Supplemental Term and any extensions thereof; the resources assigned (including the allocation of the IM FTEs); and the priority of each project if multiple projects overlap in time ("Operating Committee"). The Operating Committee shall consist of an executive member from each party and at least one senior technical manager. Each party will provide the other written notice of the members of the Operating Committee for that party and shall likewise notify the other party of any change in its assigned members. The Operating Committee expects to meet at least on a quarterly basis, or as otherwise agreed by the parties, at locations agreed by the parties with the first meeting approximately one (1) month after execution of this Supplemental Agreement. Operating Committee members may participate in any meeting in person, by telephone, teleconference or any other means of two-way communication mutually acceptable to the parties. IM will prepare minutes of each Operating Committee meeting, which minutes will be reviewed and approved by the executive member of each party.

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

3.0 **Development Plan**. For each project agreed upon by the Operating Committee, the parties will create a written Development Plan setting forth the CDP Field, target specification, and scope of work. Each new Development plan will be signed by the parties, incorporated into this Supplemental Agreement, and attached hereto as Exhibits A-2, A-3, *et seq*. Upon the conclusion of the activities in each Development Plan, the parties will set forth the CPS, if any.

4.0 **Fees**. The fees for the work to be performed by IM during the Supplemental Term are set forth in the supplemental Quote, attached hereto as Exhibit D and incorporated herein by reference. These fees cover all IM FTEs and access to IM' s Tools and Software as set forth in the Advanced Memory Agreement. Elpida agrees to pay the fees set forth in Exhibit Don the schedule set forth therein. Nothing in this Supplemental Agreement changes the existing payment obligations in the Quote attached as Exhibit B to the Advanced Memory Agreement.

5.0 **Intellectual Property and Licenses.** The parties acknowledge and agree that the IP ownership and license terms set forth in Article 3 of the Advanced Memory Agreement shall remain unchanged.

6.0 **Royalty.** The royalty terms set forth in Exhibit C to the Advanced Memory Agreement shall be amended in accordance with the following terms as provided in this Section 6.0.

For the calendar years [*], and [*], Elpida agrees to pay IM the Royalties according to the following Royalty schedule replacing the Royalty Rate as provided in Exhibit C, provided that no Royalty payments will be due from Elpida during any calendar year in which Elpida or a Third Party Licensee does not ship Products. The fixed amounts for years [*] and [*]shall be due within thirty (30) days of the first quarterly report showing the shipment of the Products.

Calendar Year	Royalty per Year
[*]	[*]
[*]	[*]
[*]	[*]

The [*] Royalty due shall be either [*] or [*] (i.e., the amounts are not cumulative for [*]) depending on the date of first shipment of a Product in that year. For the calendar years [*]and beyond, Elpida will pay IM Royalties according to the Royalty schedule set forth in Exhibit C of the Advanced Memory Agreement.

The Elpida and [*] Cap shall be amended so that the Royalty payable by Elpida to IM shall be capped at [*] in [*] and [*] per year in [*]. Otherwise, the Elpida and [*] Cap shall remain unchanged.

In addition, Elpida will be relieved from the obligation to make the Pre-Paid Royalty and the terms and conditions related thereto shall be null and void.

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Except as amended hereinabove, the terms of Exhibit C shall remain in full force and effect.

7.0 **Definitions**. All capitalized terms not defined herein shall have the meaning set forth in the Advanced Memory Agreement.

8.0 **Precedence**. The terms and conditions of the Advanced Memory Agreement shall govern activities between the parties conducted under this Supplemental Agreement even if such Sections are not specifically referenced below; however, in the event of a conflict

between the two agreements, the terms and conditions of this Supplemental Agreement shall govern work outside of the DRAM CDP Field set forth in the Advanced Memory Agreement.

In Witness Whereof, the parties hereto have executed this document as the last date set forth below.

Elpida Memory, Inc.		**Intermolecular, Inc.**	
By:	/s/ Hideki Gomi	By:	/s/ Peter Eidelman
Name:	Hideki Gomi	Name:	Peter Eidelman
Title:	Director & CTO	Title:	CFO
Date:	February 6, 2009	Date:	January 27, 2009

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Description	**Qty.**	**Price**
Collaborative Development Program Service Fee		
[*]	[*]	[*]
		included in program
HPC Workflow Subscription and Access Fee		
[*]	[*]	
[*]	[*]	
[*]	[*]	
[*]	[*]	
[*]	[*]	
[*]	[*]	
[*]	[*]	
[*]	[*]	
	Program Total	[*]

[*]

Payment terms:

[*]

Payment date	[*]	[*]	[*]	[*]	[*]
Payment Amount	[*]	[*]	[*]	[*]	[*]

AMENDMENT TO SUPPLEMENTAL JOINT DEVELOPMENT AGREEMENT
Elpida Memory, Inc. − Intermolecular, Inc.

This Amendment to Supplemental Joint Development Agreement ("**Amendment**") is made as of May 25, 2009 ("**Effective Date**") between Elpida Memory, Inc., a Japanese corporation operating at 2-1, Yaesu 2-chome, Chuo-ku, Tokyo 104-0028, Japan ("**Elpida**"), and Intermolecular, Inc., a Delaware corporation operating at 2865 Zanker Road, San Jose, California 95134 or designated Affiliate ("**Intermolecular**" or "**IM**"). Elpida and IM are sometimes referred to herein individually as a "party" and collectively as the "parties".

BACKGROUND

IM and Elpida continue to work together pursuant to the Advanced Memory Development Program Agreement executed by the parties on May 22, 2008, Exhibit C − Royalty Terms executed by the parties on August 18, 2008, and the Supplemental Joint Development Agreement executed effective on January 27, 2009 (collectively the "**Advanced Memory Agreements**") on solutions for next generation Dynamic Random Access Memory ("**DRAM**"). IM and Elpida desire to continue working together for the development of advanced process integration solutions, expand the technical scope, and engage in a more open collaboration. All capitalized terms not defined herein shall have the meaning set forth in the Advanced Memory Agreements.

Now therefore, the parties agree as follows:

AMENDED TERMS

1.0 **Additional Scope under CDP.** The parties acknowledge and agree to work together to improve the [*] **Technology**") by evaluating, among other things, precursor selection, process tuning, and/or stack improvements as agreed by the parties in the Development Plan as a part of CDP during the Supplemental Term.

2.0 **Royalty**. In place of the royalty terms set forth in the Advanced Memory Agreements, if Elpida manufactures and ships Products using [*] Technology ("[*] **Products**"), Elpida will pay the fixed Royalty according to the following tables:

(1) in the case where a [*] Product is first shipped in [*] or before:

Calendar Year	Royalty per Year
[*]	[*]
[*]	[*]
From 2011 to 2014	$5,000,000

(2) in the case where a [*] Product is first shipped in a year on or after [*], Elpida will pay a fixed annual Royalty of $5,000,000 for five (5) years.

In each case of i) or ii) above, the Royalty obligation of Elpida hereunder and under the Advanced Memory Agreements shall last for [*] years from the date of first shipment of a [*] Product in which Elpida ships Products using the [*] Technology ("**Royalty Clock**").

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

The royalty terms between the parties shall remain as set forth in Section 6.0 of the Supplemental Agreement for the other collaborative development activities between the parties. For the avoidance of doubt, the fixed amounts set forth above will be included in the calculation of the annual royalty cap of Section 6.0 of the Supplemental Agreement and shall not be incremental to such cap.

3.0 **Future Collaboration for** [*]**.** Elpida and Intermolecular further agree to continue working on improving the [*] Technology for [*] and future DRAM nodes in conjunction with other applicable Development Plans ("Improved [*] Technology"). If Elpida manufactures and ships Products using such Improved [*] Technology, Elpida agrees to extend the Supplemental Term for a period of [*] months (e.g., from [*] until [*]) during which the amount of the non cancellable fees for those additional Services performed by IM is ten million US dollars (US $10,000,000). Elpida will make payment for such fees in accordance with the payment terms as separately agreed by the parties. For each node in which Elpida utilizes an Improved [*] Technology, the [*] Royalty Clock shall restart and Elpida agrees to pay Intermolecular a fixed royalty payment of five million US dollars (US$5,000,000) per year for up to five (5) years in which it ships Products using the [*] Technology. In case Elpida manufactures and ships multiple nodes of the Products using any [*] Technology in the same calendar year, the fixed Royalty for each node will not be cumulative and the amount of the fixed Royalty will in no event exceed [*] for each calendar year during the [*] Royalty Clock.

4.0 **IP Ownership.** Section 3.3.2 of the Advanced Memory Agreement shall be modified for purposes of the [*] Technology development such that IM shall possess all right, title, and interest, including Intellectual Property Rights, in any CDP Developed Technology that is [*], and IM and Elpida shall jointly possess all right, title, and interest, including Intellectual Property Rights, in any CDP Developed Technology [*].

5.0 **Precedence.** Except as amended herein, the terms of Advanced Memory Agreements shall remain in full force and effect.

In Witness Whereof, the parties hereto, have executed this document as the last date set forth below.

Elpida Memory, Inc.		**Intermolecular, Inc.**	
By:	/s/ Hideki Gomi	By:	/s/ David Lazovsky
Name:	Hideki Gomi	Name:	David Lazovsky
Title:	Director & CTO	Title:	President & CEO
Date:	6/10/09	Date:	6/8/09

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

AMENDMENT TO THE ADVANCED MEMORY AGREEMENTS
Elpida Memory, Inc. - Intermolecular, Inc.

This **AMENDMENT** ("**Amendment**") is made and entered into as of July 29, 2010 ("**Amendment Effective Date**") between **ELPIDA MEMORY, INC**., a Japanese corporation operating at 2-1, Yaesu 2-chome, Chuo-ku, Tokyo 104-0028, Japan ("**Elpida**"), and **INTERMOLECULAR, INC**., a Delaware corporation operating at 2865 Zanker Road, San Jose, California 95134 or designated Affiliate ("**Intermolecular**" or "**IM**"), and amends that certain Advanced Memory Development Program

Agreement entered into by the parties set forth above as of May 22, 2008 (the "**Original Agreement**"), Exhibit C - Royalty Terms entered into by the parties as of August 18,2008 ("**Amended Exhibit C**"), the Supplemental Joint Development Agreement entered into by the parties as of January 27, 2009 (the "**Supplemental Agreement**"), and the Amendment to Supplemental Joint Development Agreement entered into by the parties as of May 25, 2009 (the "**Supplemental Amendment**" and collectively with the previously listed agreements, the "**Advanced Memory Agreements**") regarding solutions for next generation Dynamic Random Access Memory ("**DRAM**"). All capitalized terms not defined herein shall have the meaning set forth in the Advanced Memory Agreements.

Whereas, Elpida and IM desire to continue working together for the further development of next generation process optimization solutions and engage in further development collaboration; and

Whereas, Elpida and IM now desire to extend the term of the COP and adjust the economics of the agreements between the parties with respect to COP, particularly in light of the extended COP term, regardless of the terms currently set forth in the Advanced Memory Agreements;

Now, Therefore, the parties agree as follows:

1.0 **Extended Term**. Section 1.0 of the Supplemental Agreement extended the Initial Term from [*] until [*] ("Supplemental Term"). This Amendment shall extend the Supplemental Term from [*] for an additional [*] years to April 1, 2013 ("Amended Supplemental Term"). This Amended Supplemental Term shall be non-cancellable or terminable except for termination under Section 9.3 or 9.4 of the Original Agreement.

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[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

2.0 **Adjusted Economics**. Notwithstanding the royalty terms set forth in the Amended Exhibit C, Section 6.0 of the Supplemental Agreement, and Section 2.0 of the Supplemental Amendment, Elpida agrees to pay IM the following:

2.1 **CDP Fee Payment**. For continued CDP Services during the Amended Supplemental Term, Elpida agrees to pay IM [*] per calendar quarter, payable on the first day of each calendar quarter beginning [*]. Unless otherwise agreed between the parties, these fees will cover all IM FTEs and HPC Workflow Subscription and Access Fee including, without limitation, fees for access to IM Tools and Software as set forth in Section 4.1 of the Original Agreement. The foregoing does not alter or affect Elpida' s continuing obligations to pay for CDP Services prior to [*]. In addition, any mutually agreed out of pocket costs for the performance of the CDP service and incurred by IM during the Amended Supplemental Term will be reimbursed. This Section 2.1 supersedes the terms regarding Future Collaboration for [*] set forth in Section 3 of the Supplemental Amendment.

2.2 **Payment for Development Tasks**. For all development tasks that have been performed and completed through [*], including but not limited to tasks performed and completed relating to [*] or [*], Elpida agrees to pay an annual fixed contribution fee for work already performed and without requirement for further performance by IM in the amount of (a) [*] on [*]; and (b) then for each year thereafter for [*] years beginning on [*], [*] per year payable quarterly on the first day of each calendar quarter in payments of [*]. Notwithstanding any other provision to the contrary, these payments are due and payable on the dates specified, regardless of the timing of manufacture, shipment or sale of Products.

2.3 **Annual Contribution Fee Payment**. For the CDP Developed Technology resulting from IM' s provision of Services except those relating to [*] or [*] and that is utilized in any Product at any process node at the [*] process node or above (as designated by Elpida in accordance with its internal practices consistently applied), including without limitation any Product that utilize any new precursor or [*], ("**Fee Triggering Technology**"), Elpida agrees to

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pay IM annual contribution fees of Five Million US Dollars (US$5,000,000) per year for five (5) years (the "**Annual Contribution Fee Period**") beginning on the date that the Fee Triggering Technology is first utilized in any Product (the "**Fee Trigger Date**"), payable thirty (30) days following the Fee Trigger Date.

2.3.1 For the avoidance of doubt, the Annual Contribution Fee Period will be applicable as to each Fee Triggering Technology that is utilized in any Product. In addition, for the purposes of clarity, the Annual Contribution Fee Period shall be triggered as to each Fee Triggering Technology that is newly utilized in any Product, not as to each Product that may utilize such Fee Triggering Technology.

2.3.2 The foregoing annual contribution fee would not be additive to the contribution fees payable pursuant to Section 2.2, but would rather supersede the payment obligations set forth in Section 2.2. In addition, in case where the Fee Triggering Technology is utilized in multiple nodes of the Products in the same year, the annual contribution fees for each node will not be cumulative. For the avoidance of doubt, the amount of the contribution fee paid by Elpida hereunder will in no event exceed [*] for each year during the Annual Contribution Fee Period.

2.4 **No Royalty**. Except as expressly provided in Section 2.2 and 2.3 above, Elpida shall have no obligation to make any payment, including any royalty payment under the Advanced Memory Agreements relating to the technology of [*] or [*], or the Fee Triggering Technology.

2.5 **Royalty Payment**. For the CDP Developed Technology resulting from IM' s provision of Services except those relating to [*] or [*], or the Fee Triggering Technology, regardless of material system, and that is utilized in any Product at any process node below the [*] process node (as designated by Elpida in accordance with its internal practices consistently applied), ("**Royalty Triggering Technology**"), Elpida agrees to pay IM royalties in accordance with the Amended Exhibit C for [*] years (the "**Royalty Period**") beginning on the date that the Elpida ships any Products in which Royalty Triggering Technology is utilized (the "**Royalty Trigger Date**").

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

2.5.1 For the avoidance of doubt, a new and separate Royalty Period will be applicable as to each Royalty Triggering Technology that is utilized in any Product. In addition, for the purposes of clarity, the Royalty Period shall be triggered as to each Royalty Triggering Technology that is newly utilized in any Product, not as to each Product that may utilize such Royalty Triggering Technology.

2.5.2 Payment of royalties during the Royalty Period is in addition to the payments due under Sections 2.1, 2.2 and 2.3 above; provided however, that to the extent that the payment term for annual contribution fees overlaps with the Royalty Period, Elpida' s payment obligation will be the greater of Five Million US Dollars (US$5,000,000) per year or the royalty amount due in accordance with the Amended Exhibit C. In no event will Elpida be obligated to pay IM more than Eight Million, Seven Hundred and Fifty Thousand US Dollars (US$8,750,000) in royalties under this Section 2.4 during any calendar quarter in 2013 and beyond and more than Six Million, Two Hundred and Fifty Thousand US Dollars (US$6,250,000) in royalties under this Section 2.4 during 2012. If additional royalties are accrued but not payable as a result, then such additional royalties will be payable in the following calendar quarter, provided, however, that in no event will Elpida be required to pay more than Eight Million, Seven Hundred and Fifty Thousand US Dollars (US $8,750,000) in royalties during any calendar quarter. In the event that IM can

provide novel CDP Developed Technology (including but not limited to [*]) the definition of which will be separately determined through the good faith discussion and that such novel CDP Developed Technology is utilized in Products at the [*] node or above (as designated by Elpida in accordance with its internal practices consistently applied), then the terms and conditions with respect to the Royalties in accordance with the Amended Exhibit C will apply with the quarterly cap of the Eight Million, Seven Hundred and Fifty Thousand US Dollars (US$8,750,000) mentioned above.

2.5.3 After the expiration of the Royalty Period, the license for the Royalty Triggering Technology granted by IM to Elpida under the Advanced Memory Agreements shall become a worldwide, irrevocable, fully paid up license (i) to use, make, have made, import, offer to sell, sell, lease and

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

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otherwise dispose of to use, make, have made, import, offer to sell, sell, lease and otherwise dispose of Products utilizing Royalty Triggering Technology (ii) to modify or make derivatives of the Royalty Triggering Technology, and (iii) to exercise the limited sublicense rights as set forth in Sections 3.5.1 and 3.5.2 of the Original Agreement without prejudice to the right granted to Elpida under the Advanced Memory Agreements subject to Section 3.0 hereof.

3.0 **Exclusivity**. The Exclusivity terms of Section 3.9 of the Original Agreement shall continue to apply during the Royalty Period or for the duration of the CDP as set forth in Section 1 above, whichever is longer.

4.0 **No Other Modifications**. Other than as provided herein, no other amendments are being made to the Advanced Memory Agreements, and all other provisions of the Advanced Memory Agreements shall remain in full force and effect in accordance with the terms of the Advanced Memory Agreements.

IN WITNESS WHEREOF, the parties hereto have executed this document as the last date set forth below.

Elpida Memory, Inc.	**Intermolecular, Inc.**
By: /s/ Hideki Gomi	By: /s/ David Lazovsky
Name: Hideki Gomi	Name: David Lazovsky
Title: Director & CTO	Title: Presidento & CEO
Date: July 29, 2010	Date: 7/29/10

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Exhibit 10.12

INTERMOLECULAR, INC.

FORM OF INDEMNIFICATION AGREEMENT

This Indemnification Agreement ("Agreement") is effective as of by and between Intermolecular, Inc., a Delaware corporation (the "Company"), and ("Indemnitee").

A. The Company recognizes the difficulty in obtaining liability insurance for its directors, officers, employees, controlling persons, fiduciaries and other agents and affiliates, the significant cost of such insurance and the general limitations in the coverage of such insurance.

B. The Company further recognizes the substantial increase in corporate litigation in general, subjecting directors, officers, employees, controlling persons, fiduciaries and other agents and affiliates to expensive litigation risks at the same time as the availability and coverage of liability insurance has been severely limited.

C. The current protection available to directors, officers, employees, controlling persons, fiduciaries and other agents and affiliates of the Company may not be adequate under the present circumstances, and directors, officers, employees, controlling persons, fiduciaries and other agents and affiliates of the Company (or persons who may be alleged or deemed to be the same), including the Indemnitee, may not be willing to serve or continue to serve or be associated with the Company in such capacities without additional protection.

D. The Company (a) desires to attract and retain the involvement of highly qualified persons, such as Indemnitee, to serve and be associated with the Company, and (b) accordingly, wishes to provide for the indemnification and advancement of expenses to the Indemnitee to the maximum extent permitted by law.

E. In view of the considerations set forth above, the Company desires that Indemnitee shall be indemnified and advanced expenses by the Company as set forth herein.

AGREEMENT:

In consideration of the mutual promises and covenants contained herein, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. Certain Definitions.

(a) "*Change in Control*" shall be deemed to have occurred if, on or after the date of this Agreement, (i) any "person" (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended), other than a trustee or other fiduciary holding securities under an employee benefit plan of the Company acting in such capacity or a corporation owned directly or indirectly by the stockholders of the Company in substantially the same proportions as their ownership of stock of the Company, becomes the "beneficial owner" (as defined in Rule 13d-3 under said Act), directly or indirectly, of securities of the Company

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representing more than fifty percent (50%) of the total voting power represented by the Company' s then outstanding Voting Securities (as defined below), (ii) during any period of two (2) consecutive years, individuals who at the beginning of such period constitute the Board of Directors of the Company and any new director whose election by the Board of Directors or nomination for election by the Company' s stockholders was approved by a vote of at least two- thirds (2/3) of the directors then still in office who either were directors at the beginning of the period or whose election or nomination for election was previously so approved, cease for any reason to constitute a majority thereof, or

(iii) the stockholders of the Company approve a merger or consolidation of the Company with any other corporation other than a merger or consolidation which would result in the Voting Securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into Voting Securities of the surviving entity) at least eighty percent (80%) of the total voting power represented by the Voting Securities of the Company or such surviving entity outstanding immediately after such merger or consolidation, or (iv) the stockholders of the Company approve a plan of complete liquidation of the Company or an agreement for the sale or disposition by the Company of (in one transaction or a series of related transactions) all or substantially all of the Company' s assets.

(b) "*Claim*" shall mean with respect to a Covered Event (as defined below): any threatened, asserted, pending or completed action, suit, proceeding or alternative dispute resolution mechanism, or any hearing, inquiry or investigation that Indemnitee in good faith believes might lead to the institution of any such action, suit, proceeding or alternative dispute resolution mechanism, whether civil, criminal, administrative, investigative or other.

(c) References to the "*Company*" shall include, in addition to Intermolecular, Inc., any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger to which Intermolecular, Inc. (or any of its wholly owned subsidiaries) is a party, which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, employees, agents or fiduciaries, so that if Indemnitee is or was a director, officer, employee, agent or fiduciary of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee, agent or fiduciary of another corporation, partnership, joint venture, employee benefit plan, trust or other enterprise, Indemnitee shall stand in the same position under the provisions of this Agreement with respect to the resulting or surviving corporation as Indemnitee would have with respect to such constituent corporation if its separate existence had continued.

(d) "*Covered Event*" shall mean any event or occurrence related to the fact that Indemnitee is or was a director, officer, employee, agent or fiduciary of the Company, or any subsidiary of the Company, direct or indirect, or is or was serving at the request of the Company as a director, officer, employee, agent or fiduciary of another corporation, partnership, joint venture, trust or other enterprise, or by reason of any action or inaction on the part of Indemnitee while serving in such capacity.

(e) "*Expense Advance*" shall mean a payment to Indemnitee for Expenses pursuant to Section 3 hereof, in advance of the settlement of or final judgment in any action, suit, proceeding or alternative dispute resolution mechanism, hearing, inquiry or investigation, which constitutes a Claim.

(f) "*Expenses*" shall mean any and all direct and indirect costs, losses, claims, damages, fees, expenses and liabilities, joint or several (including reasonable attorneys' fees and all other costs, expenses and obligations reasonably incurred in connection with investigating, defending, being a witness in or participating in (including on appeal), or preparing to defend, to be a witness in or to participate in, any action, suit, proceeding, alternative dispute resolution mechanism, hearing, inquiry or investigation), judgments, fines, penalties and amounts paid in settlement (if such settlement is approved in advance by the Company, which approval shall not be unreasonably withheld) actually and reasonably incurred, of any Claim and any federal, state, local or foreign taxes imposed on the Indemnitee as a result of the actual or deemed receipt of any payments under this Agreement.

(g) "*Independent Legal Counsel*" shall mean an attorney or firm of attorneys, selected in accordance with the provisions of Section 2(d) hereof, who shall not have otherwise performed services for the Company or Indemnitee within the last three (3) years (other than with respect to matters concerning the rights of Indemnitee under this Agreement, or of other indemnitees under similar indemnity agreements).

(h) References to "*other enterprises*" shall include employee benefit plans; references to "*fines*" shall include any excise taxes assessed on Indemnitee with respect to an employee benefit plan; and references to "*serving at the request of the Company*" shall include any service as a director, officer, employee, agent or fiduciary of the Company which imposes duties on, or involves services by, such director, officer, employee, agent or fiduciary with respect to an employee benefit plan, its participants or its beneficiaries; and if Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in the interest of the participants and beneficiaries of an employee

benefit plan, Indemnitee shall be deemed to have acted in a manner "*not opposed to the best interests of the Company*" as referred to in this Agreement.

(i) "*Reviewing Party*" shall mean, subject to the provisions of Section 2(d), any person or body appointed by the Board of Directors in accordance with applicable law to review the Company' s obligations hereunder and under applicable law, which may include a member or members of the Company' s Board of Directors, Independent Legal Counsel or any other person or body not a party to the particular Claim for which Indemnitee is seeking indemnification, exoneration or hold harmless rights.

(j) "*Section*" refers to a section of this Agreement unless otherwise indicated.

(k) "*Voting Securities*" shall mean any securities of the Company that vote generally in the election of directors.

2. Indemnification.

(a) Indemnification of Expenses. Subject to the provisions of Section 2(b) below, the Company shall indemnify, exonerate or hold harmless Indemnitee for Expenses to the fullest extent permitted by law if Indemnitee was or is or becomes a party to or witness or other participant in, or is threatened to be made a party to or witness or other participant in, any Claim

(whether by reason of or arising in part out of a Covered Event), including all interest, assessments and other charges incurred in connection with or in respect of such Expenses.

(b) Review of Indemnification Obligations. Notwithstanding the foregoing, in the event any Reviewing Party shall have determined (in a written opinion, in any case in which Independent Legal Counsel is the Reviewing Party) that Indemnitee is not entitled to be indemnified, exonerated or held harmless hereunder under applicable law, (i) the Company shall have no further obligation under Section 2(a) to make any payments to Indemnitee not made prior to such determination by such Reviewing Party and (ii) the Company shall be entitled to be reimbursed by Indemnitee (who hereby agrees to reimburse the Company) for all Expenses theretofore paid in indemnifying, exonerating or holding harmless Indemnitee (within thirty (30) days after such determination); *provided, however*, that if Indemnitee has commenced or thereafter commences legal proceedings in a court of competent jurisdiction to secure a determination that Indemnitee is entitled to be indemnified, exonerated or held harmless hereunder under applicable law, any determination made by any Reviewing Party that Indemnitee is not entitled to be indemnified hereunder under applicable law shall not be binding and Indemnitee shall not be required to reimburse the Company for any Expenses theretofore paid in indemnifying, exonerating or holding harmless Indemnitee until a final judicial determination is made with respect thereto (as to which all rights of appeal therefrom have been exhausted or lapsed). Indemnitee' s obligation to reimburse the Company for any Expenses shall be unsecured and no interest shall be charged thereon.

(c) Indemnitee Rights on Unfavorable Determination; Binding Effect. If any Reviewing Party determines that Indemnitee substantively is not entitled to be indemnified, exonerated or held harmless hereunder in whole or in part under applicable law, Indemnitee shall have the right to commence litigation seeking an initial determination by the court or challenging any such determination by such Reviewing Party or any aspect thereof, including the legal or factual bases therefor, and, subject to the provisions of Section 15 hereof, the Company hereby consents to service of process and to appear in any such proceeding. Absent such litigation, any determination by any Reviewing Party shall be conclusive and binding on the Company and Indemnitee.

(d) Selection of Reviewing Party; Change in Control. If there has not been a Change in Control, any Reviewing Party shall be selected by the Board of Directors, and if there has been such a Change in Control (other than a Change in Control which has been approved by a majority of the Company' s Board of Directors who were directors immediately prior to such Change in Control), any Reviewing Party with respect to all matters thereafter arising concerning Indemnitee' s indemnification, exoneration or hold harmless rights for Expenses under this Agreement or any other agreement or under the Company' s Certificate of Incorporation or bylaws as now or hereafter in effect, or under any other applicable law, if desired by Indemnitee, shall be Independent Legal Counsel selected by the Indemnitee and approved by Company (which approval shall not be unreasonably withheld). Such counsel, among other things, shall render its written

opinion to the Company and Indemnitee as to whether and to what extent Indemnitee would be entitled to be indemnified, exonerated or held harmless hereunder under applicable law and the Company agrees to abide by such opinion. The Company agrees to pay the reasonable fees of the Independent Legal Counsel referred to above and to fully indemnify, exonerate and hold harmless such counsel against any and all expenses (including attorneys'

fees), claims, liabilities and damages arising out of or relating to this Agreement or its engagement pursuant hereto. Notwithstanding any other provision of this Agreement, the Company shall not be required to pay Expenses of more than one Independent Legal Counsel in connection with all matters concerning a single Indemnitee, and such Independent Legal Counsel shall be the Independent Legal Counsel for any or all other Indemnitees unless (i) the Company otherwise determines or (ii) any Indemnitee shall provide a written statement setting forth in detail a reasonable objection to such Independent Legal Counsel representing other Indemnitees.

(e) Mandatory Payment of Expenses. Notwithstanding any other provision of this Agreement other than Section 10 hereof, to the extent that Indemnitee has been successful on the merits or otherwise, including, without limitation, the dismissal of an action without prejudice, in defense of any Claim, Indemnitee shall be indemnified, exonerated and held harmless against all Expenses incurred by Indemnitee in connection therewith.

(f) Contribution. If the indemnification, exoneration or hold harmless rights provided for in this Agreement is for any reason held by a court of competent jurisdiction to be unavailable to an Indemnitee, then in lieu of indemnifying, exonerating or holding harmless Indemnitee thereunder, the Company shall contribute to the amount paid or payable by Indemnitee as a result of such Expenses (i) in such proportion as is appropriate to reflect the relative benefits received by the Company and Indemnitee or (ii) if the allocation provided by clause (i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company and Indemnitee in connection with the action or inaction which resulted in such Expenses, as well as any other relevant equitable considerations. In connection with the registration of the Company' s securities, the relative benefits received by the Company and Indemnitee shall be deemed to be in the same respective proportions that the net proceeds from the offering (before deducting expenses) received by the Company and Indemnitee, in each case as set forth in the table on the cover page of the applicable prospectus, bear to the aggregate public offering price of the securities so offered. The relative fault of the Company and Indemnitee shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company or Indemnitee and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission.

The Company and Indemnitee agree that it would not be just and equitable if contribution pursuant to this Section 2(f) were determined by pro rata or by any other method of allocation which does not take account of the equitable considerations referred to in the immediately preceding paragraph. In connection with the registration of the Company' s securities, in no event shall Indemnitee be required to contribute any amount under this Section 2(f) in excess of the net proceeds received by Indemnitee from its sale of securities under such registration statement. No person found guilty of fraudulent misrepresentation (within the meaning of Section 11(1) of the Securities Act) shall be entitled to contribution from any person who was not found guilty of such fraudulent misrepresentation.

3. Expense Advances.

(a) Obligation to Make Expense Advances. The Company shall make Expense Advances to Indemnitee upon receipt of a written undertaking by or on behalf of the Indemnitee to repay such amounts if it shall ultimately be determined that the Indemnitee is not entitled to be indemnified, exonerated or held harmless therefor by the Company.

(b) Form of Undertaking. Any written undertaking by the Indemnitee to repay any Expense Advances hereunder shall be unsecured and no interest shall be charged thereon.

4. Procedures for Indemnification and Expense Advances.

(a) Timing of Payments. All payments of Expenses (including without limitation Expense Advances) by the Company to the Indemnitee pursuant to this Agreement shall be made to the fullest extent permitted by law as soon as practicable after written demand by Indemnitee therefor is presented to the Company, but in no event later than forty-five (45) days after such written demand by Indemnitee is presented to the Company, except in the case of Expense Advances, which shall be made no later than twenty (20) days after such written demand by Indemnitee is presented to the Company.

(b) Notice/Cooperation by Indemnitee. Indemnitee shall, as a condition precedent to Indemnitee' s right to be indemnified, exonerated or held harmless or Indemnitee' s right to receive Expense Advances under this Agreement, give the Company notice in writing as soon as practicable of any Claim made against Indemnitee for which indemnification, exoneration or hold harmless right will or could be sought under this Agreement. Notice to the Company shall be directed to the President and the Secretary of the Company at the address shown on the signature page of this Agreement (or such other address as the Company shall designate in writing to Indemnitee). In addition, Indemnitee shall give the Company such information and cooperation as it may reasonably require and as shall be within Indemnitee' s power.

(c) No Presumptions; Burden of Proof. For purposes of this Agreement, the termination of any Claim by judgment, order, settlement (whether with or without court approval) or conviction, or upon a plea of *nolo contendere*, or its equivalent, shall not create a presumption that Indemnitee did not meet any particular standard of conduct or have any particular belief or that a court has determined that indemnification, exoneration or hold harmless right is not permitted by this Agreement or applicable law. In addition, neither the failure of any Reviewing Party to have made a determination as to whether Indemnitee has met any particular standard of conduct or had any particular belief, nor an actual determination by any Reviewing Party that Indemnitee has not met such standard of conduct or did not have such belief, prior to the commencement of legal proceedings by Indemnitee to secure a judicial determination that Indemnitee should be indemnified, exonerated or held harmless under this Agreement or applicable law, shall be a defense to Indemnitee' s claim or create a presumption that Indemnitee has not met any particular standard of conduct or did not have any particular belief. In connection with any determination by any Reviewing Party or otherwise as to whether the

Indemnitee is entitled to be indemnified, exonerated or held harmless hereunder, the burden of proof shall be on the Company to establish that Indemnitee is not so entitled.

(d) Notice to Insurers. If, at the time of the receipt by the Company of a notice of a Claim pursuant to Section 4(b) hereof, the Company has liability insurance in effect which may cover such Claim, the Company shall give prompt notice of the commencement of such Claim to the insurers in accordance with the procedures set forth in the respective policies. The Company shall thereafter take all reasonably necessary or desirable action to cause such insurers to pay, on behalf of the Indemnitee, all amounts payable as a result of such Claim in accordance with the terms of such policies.

(e) Selection of Counsel. In the event the Company shall be obligated hereunder to provide indemnification, exoneration or hold harmless rights for or make any Expense Advances with respect to the Expenses of any Claim, the Company, if appropriate, shall be entitled to assume the defense of such Claim with counsel approved by Indemnitee (which approval shall not be unreasonably withheld) upon the delivery to Indemnitee of written notice of the Company' s election to do so. After delivery of such notice, approval of such counsel by Indemnitee and the retention of such counsel by the Company, the Company will not be liable to Indemnitee under this Agreement for any fees or expenses of separate counsel subsequently employed by or on behalf of Indemnitee with respect to the same Claim; *provided, however*, that (i) Indemnitee shall have the right to employ Indemnitee' s separate counsel in any such Claim at Indemnitee' s expense and (ii) if (A) the employment of separate counsel by Indemnitee has been previously authorized by the Company, (B) Indemnitee shall have reasonably concluded that there may be a conflict of interest between the Company and Indemnitee in the conduct of any such defense, or (C) the Company shall not continue to retain such counsel to defend such Claim, then the fees and expenses of Indemnitee' s separate counsel shall be Expenses for which Indemnitee may receive indemnification, exoneration or hold harmless rights or

Expense Advances hereunder. The Company shall have the right to conduct such defense as it sees fit in its sole discretion, including the right to settle any claim, action or proceeding against Indemnitee without the consent of Indemnitee, provided that the terms of such settlement include either: (i) a full release of Indemnitee by the claimant from all liabilities or potential liabilities under such claim; or (ii), in the event such full release is not obtained, the terms of such settlement do not limit any indemnification, exoneration or hold harmless rights Indemnitee may now, or hereafter, be entitled to under this Agreement, the Company' s Certificate of Incorporation, bylaws, any agreement, any vote of stockholders or disinterested directors, the General Corporation Law of the State of Delaware (the "DGCL") or otherwise.

5. Additional Indemnification Rights; Nonexclusivity.

(a) Scope. The Company hereby agrees to indemnify, exonerate and hold harmless the Indemnitee to the fullest extent permitted by law, notwithstanding that such indemnification, exoneration or hold harmless right is not specifically authorized by the other provisions of this Agreement, the Company' s Certificate of Incorporation, the Company' s bylaws or by statute. In the event of any change after the date of this Agreement in any applicable law, statute or rule which expands the right of a Delaware corporation to indemnify, exonerate or hold harmless a member of its board of directors or an officer, employee, agent or fiduciary, it is the intent of the parties hereto that Indemnitee shall enjoy by this Agreement the

greater benefits afforded by such change. In the event of any change in any applicable law, statute or rule which narrows the right of a Delaware corporation to indemnify, exonerate or hold harmless a member of its board of directors or an officer, employee, agent or fiduciary, such change, to the extent not otherwise required by such law, statute or rule to be applied to this Agreement, shall have no effect on this Agreement or the parties' rights and obligations hereunder except as set forth in Section 10(a) hereof.

(b) Nonexclusivity. The indemnification, exoneration or hold harmless rights and the payment of Expense Advances provided by this Agreement shall be in addition to any rights to which Indemnitee may be entitled under the Company' s Certificate of Incorporation, its bylaws, any other agreement, any vote of stockholders or disinterested directors, the DGCL, or otherwise. The indemnification, exoneration or hold harmless rights and the payment of Expense Advances provided under this Agreement shall continue as to Indemnitee for any action taken or not taken while serving in an indemnified, exonerated or held harmless capacity even though subsequent thereto Indemnitee may have ceased to serve in such capacity.

6. No Duplication of Payments. The Company shall not be liable under this Agreement to make any payment in connection with any Claim made against Indemnitee to the extent Indemnitee has otherwise actually received payment (under any insurance policy, provision of the Company' s Certificate of Incorporation, bylaws or otherwise) of the amounts otherwise payable hereunder, except as provided in Section 18 below.

7. Partial Indemnification. If Indemnitee is entitled under any provision of this Agreement to indemnification, exoneration or hold harmless rights by the Company for some or a portion of Expenses incurred in connection with any Claim, but not, however, for the total amount thereof, the Company shall nevertheless indemnify, exonerate or hold harmless Indemnitee for the portion of such Expenses to which Indemnitee is entitled.

8. Mutual Acknowledgment. Both the Company and Indemnitee acknowledge that in certain instances, federal law or applicable public policy may prohibit the Company from indemnifying, exonerating or holding harmless its directors, officers, employees, agents or fiduciaries under this Agreement or otherwise. Indemnitee understands and acknowledges that the Company may be required in the future to undertake with the Securities and Exchange Commission to submit the question of indemnification, exoneration or hold harmless rights to a court in certain circumstances for a determination of the Company' s right under public policy to indemnify, exonerate or hold harmless Indemnitee.

9. Liability Insurance. To the extent the Company maintains liability insurance applicable to directors, officers, employees, agents or fiduciaries, Indemnitee shall be covered by such policies in such a manner as to provide Indemnitee the same rights and benefits as are provided to the most favorably insured of the Company' s directors who are not employees of the Company, if Indemnitee is a director

who is not employed by the Company; or of the Company' s officers, if Indemnitee is a director of the Company and is also employed by the Company, or is not a director of the Company but is an officer; or in the Company' s sole discretion, if Indemnitee is not an officer or director but is a key employee, agent or fiduciary.

10. Exceptions. Notwithstanding any other provision of this Agreement, the Company shall not be obligated pursuant to the terms of this Agreement:

(a) Excluded Action or Omissions. To indemnify, exonerate or hold harmless Indemnitee for Expenses resulting from acts, omissions or transactions for which Indemnitee is prohibited from receiving indemnification, exoneration or hold harmless rights under this Agreement or applicable law; *provided, however*, that notwithstanding any limitation set forth in this Section 10(a) regarding the Company' s obligation to provide indemnification, exoneration or hold harmless rights to Indemnitee, Indemnitee shall be entitled under Section 3 to receive Expense Advances hereunder with respect to any such Claim unless and until a court having jurisdiction over the Claim shall have made a final judicial determination (as to which all rights of appeal therefrom have been exhausted or lapsed) that Indemnitee has engaged in acts, omissions or transactions for which Indemnitee is prohibited from receiving indemnification under this Agreement or applicable law.

(b) Claims Initiated by Indemnitee. To indemnify, exonerate or hold harmless or make Expense Advances to Indemnitee with respect to Claims initiated or brought voluntarily by Indemnitee and not by way of defense, counterclaim or cross claim, except (i) with respect to actions or proceedings brought to establish or enforce an indemnification, exoneration or hold harmless right under this Agreement or any other agreement or insurance policy or under the Company' s Certificate of Incorporation or bylaws now or hereafter in effect relating to Claims for Covered Events, (ii) in specific cases if the Board of Directors has approved the initiation or bringing of such Claim, or (iii) as otherwise required under Section 145 of the DGCL, regardless of whether Indemnitee ultimately is determined to be entitled to such indemnification, exoneration, hold harmless right, Expense Advances or insurance recovery, as the case may be.

(c) Lack of Good Faith. To indemnify, exonerate or hold harmless Indemnitee for any Expenses incurred by the Indemnitee with respect to any action instituted (i) by Indemnitee to enforce or interpret this Agreement, if a court having jurisdiction over such action determines as provided in Section 13 hereof that each of the material assertions made by the Indemnitee as a basis for such action was not made in good faith or was frivolous, or (ii) by or in the name of the Company to enforce or interpret this Agreement, if a court having jurisdiction over such action determines as provided in Section 13 hereof that each of the material defenses asserted by Indemnitee in such action was made in bad faith or was frivolous.

(d) Claims Under Section 16(b). To indemnify, exonerate or hold harmless Indemnitee for expenses and the payment of profits arising from the purchase and sale by Indemnitee of securities in violation of Section 16(b) of the Securities Exchange Act of 1934, as amended, or any similar successor statute; *provided, however,* that notwithstanding any limitation set forth in this Section 10(d) regarding the Company' s obligation to provide indemnification or exoneration or hold harmless, Indemnitee shall be entitled under Section 3 hereof to receive Expense Advances hereunder with respect to any such Claim unless and until a court having jurisdiction over the Claim shall have made a final judicial determination (as to which all rights of appeal therefrom have been exhausted or lapsed) that Indemnitee has violated said statute.

11. Counterparts. This Agreement may be executed in counterparts and by facsimile or electronic transmission, each of which shall constitute an original and all of which, together, shall constitute one instrument.

12. Binding Effect; Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of and be enforceable by the parties hereto and their respective successors, assigns, including any direct or indirect successor by purchase, merger, consolidation or otherwise to all or substantially all of the business and/or assets of the Company, spouses, heirs, and personal and legal

representatives. The Company shall require and cause any successor (whether direct or indirect by purchase, merger, consolidation or otherwise) to all, substantially all, or a substantial part, of the business and/or assets of the Company, by written agreement in form and substance satisfactory to Indemnitee, expressly to assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform if no such succession had taken place. This Agreement shall continue in effect regardless of whether Indemnitee continues to serve as a director, officer, employee, agent or fiduciary (as applicable) of the Company or of any other enterprise at the Company' s request. **[**The Company and Indemnitee agree that the Fund Indemnitors (as defined in Section 18 hereof) are express third party beneficiaries of this Agreement.**]**(1)

13. **Expenses Incurred in Action Relating to Enforcement or Interpretation.** In the event that any action is instituted by Indemnitee under this Agreement or under any liability insurance policies maintained by the Company to enforce or interpret any of the terms hereof or thereof, Indemnitee shall be entitled to be indemnified for all Expenses incurred by Indemnitee with respect to such action (including without limitation attorneys' fees), regardless of whether Indemnitee is ultimately successful in such action, unless as a part of such action a court having jurisdiction over such action makes a final judicial determination (as to which all rights of appeal therefrom have been exhausted or lapsed) that each of the material assertions made by Indemnitee as a basis for such action was not made in good faith or was frivolous; *provided, however*, that until such final judicial determination is made, Indemnitee shall be entitled under Section 3 hereof to receive payment of Expense Advances hereunder with respect to such action. In the event of an action instituted by or in the name of the Company under this Agreement to enforce or interpret any of the terms of this Agreement, Indemnitee shall be entitled to be indemnified, exonerated or held harmless for all Expenses incurred by Indemnitee in defense of such action (including without limitation costs and expenses incurred with respect to Indemnitee' s counterclaims and cross-claims made in such action), unless as a part of such action a court having jurisdiction over such action makes a final judicial determination (as to which all rights of appeal therefrom have been exhausted or lapsed) that each of the material defenses asserted by Indemnitee in such action was made in bad faith or was frivolous; *provided, however*, that until such final judicial determination is made, Indemnitee shall be entitled under Section 3 hereof to receive payment of Expense Advances hereunder with respect to such action.

14. **Notices.** All notices, requests, demands and other communications under this Agreement shall be in writing and shall be deemed duly given (i) if delivered by hand and signed for by the party addressed, on the date of such delivery, or (ii) if mailed by domestic certified or registered mail with postage prepaid, on the third business day after the date postmarked.

(1) Use if applicable.

Addresses for notice to either party are as shown on the signature page of this Agreement or as subsequently modified by written notice.

15. **Consent to Jurisdiction.** The Company and Indemnitee each hereby irrevocably consent to the jurisdiction of the courts of the State of Delaware for all purposes in connection with any action or proceeding which arises out of or relates to this Agreement and agree that any action instituted under this Agreement shall be commenced, prosecuted and continued only in the Court of Chancery of the State of Delaware in and for New Castle County, which shall be the exclusive and only proper forum for adjudicating such a claim.

16. **Severability.** The provisions of this Agreement shall be severable in the event that any of the provisions hereof (including any provision within a single section, paragraph or sentence) are held by a court of competent jurisdiction to be invalid, void or otherwise unenforceable, and the remaining provisions shall remain enforceable to the fullest extent permitted by law. Furthermore, to the fullest extent possible, the provisions of this Agreement (including without limitation each portion of this Agreement containing any provision held to be invalid, void or otherwise unenforceable, that is not itself invalid, void or unenforceable) shall be construed so as to give effect to the intent manifested by the provision held invalid, illegal or unenforceable.

17. **Choice of Law.** This Agreement, and all rights, remedies, liabilities, powers and duties of the parties to this Agreement, shall be governed by and construed in accordance with the laws of the State of Delaware without regard to principles of conflicts of laws.

18. **[Fund Indemnitors; Subrogation.**

(a) The Company hereby acknowledges that Indemnitee has certain indemnification, exoneration, hold harmless or Expense advancement rights and/or insurance provided by [NAME OF FUND] and certain of its affiliates (collectively, the "Fund Indemnitors"). The Company hereby agrees (i) that it is the indemnitor of first resort (i.e., its obligations to Indemnitee are primary and any obligation of the Fund Indemnitors to advance Expenses or to provide indemnification, exoneration or hold harmless rights for the same Expenses incurred by Indemnitee are secondary), (ii) that it shall be required to advance the full amount of Expenses incurred by Indemnitee and shall be liable for the full amount of all Expenses, to the extent legally permitted and as required by the Certificate of Incorporation or bylaws of the Company (or any agreement between the Company and Indemnitee), without regard to any rights Indemnitee may have against the Fund Indemnitors, and (iii) that it irrevocably waives, relinquishes and releases the Fund Indemnitors from any and all claims against the Fund Indemnitors for contribution, subrogation or any other recovery of any kind in respect thereof. The Company further agrees that no advancement or payment by the Fund Indemnitors on behalf of Indemnitee with respect to any Claim for which Indemnitee has sought indemnification, exoneration or hold harmless rights from the Company shall affect the foregoing and the Fund Indemnitors shall have a right to receive from the Company, contribution and/or be subrogated, to the extent of such advancement or payment to all of the rights of recovery of Indemnitee against the Company.**](2)**

(2) Use if applicable.

(b) [Except as provided in Section 18(a) above, i]**[I]**n the event of payment under this Agreement, the Company shall be subrogated to the extent of such payment to all of the rights of recovery of Indemnitee [(other than against Fund Indemnitors)] from any insurance policy purchase by the Company, who shall execute all documents required and shall do all acts that may be necessary to secure such rights and to enable the Company effectively to bring suit to enforce such rights. In no event, however, shall the Company or any other person have any right of recovery, through subrogation or otherwise, against [(i)] Indemnitee[, (ii) any Fund Indemnitor or (iii)] any insurance policy purchased or maintained by Indemnitee [or any Fund Indemnitor].

19. Amendment and Termination. No amendment, modification, termination or cancellation of this Agreement shall be effective unless it is in writing signed by both the parties hereto. No waiver of any of the provisions of this Agreement shall be deemed to be or shall constitute a waiver of any other provisions hereof (whether or not similar), nor shall such waiver constitute a continuing waiver.

20. Integration and Entire Agreement. This Agreement sets forth the entire understanding between the parties hereto and supersedes and merges all previous written and oral negotiations, commitments, understandings and agreements relating to the subject matter hereof between the parties hereto.

21. No Construction as Employment Agreement. Nothing contained in this Agreement shall be construed as giving Indemnitee any right to employment by the Company or any of its subsidiaries or affiliated entities.

22. Additional Acts. If for the validation of any of the provisions in this Agreement any act, resolution, approval or other procedure is required, the Company undertakes to cause such act, resolution, approval or other procedure to be affected or adopted in a manner that will enable the Company to fulfill its obligations under this Agreement.

(The remainder of this page is intentionally left blank.)

IN WITNESS WHEREOF, the parties hereto have executed this Indemnification Agreement as of the date first above written.

INTERMOLECULAR, INC.

By: _____

AUTHORIZED OFFICER

Address:
3011 N. First Street
San Jose, CA 95134

AGREED TO AND ACCEPTED BY:

INDEMNITEE:

By: _____

[NAME OF INDEMNITEE]

Date: [ ]

Address:

INTERMOLECULAR, INC.
2011 INCENTIVE AWARD PLAN

ARTICLE 1.

PURPOSE

The purpose of the Intermolecular, Inc. 2011 Incentive Award Plan (the "Plan") is to promote the success and enhance the value of Intermolecular, Inc. (the "Company") by linking the individual interests of the members of the Board, Employees and Consultants to those of the Company' s stockholders and by providing such individuals with an incentive for outstanding performance to generate superior returns to the Company' s stockholders. The Plan is further intended to provide flexibility to the Company in its ability to motivate, attract, and retain the services of members of the Board, Employees and Consultants upon whose judgment, interest, and special effort the successful conduct of the Company' s operation is largely dependent.

ARTICLE 2.

DEFINITIONS AND CONSTRUCTION

Wherever the following terms are used in the Plan they shall have the meanings specified below, unless the context clearly indicates otherwise. The singular pronoun shall include the plural where the context so indicates.

2.1 "Administrator" shall mean the entity that conducts the general administration of the Plan as provided in Article 13 hereof. With reference to the duties of the Committee under the Plan which have been delegated to one or more persons pursuant to Section 13.6 hereof, or which the Board has assumed, the term "Administrator" shall refer to such person(s) unless the Committee or the Board has revoked such delegation or the Board has terminated the assumption of such duties.

2.2 "Affiliate" shall mean any Parent or Subsidiary.

2.3 "Applicable Accounting Standards" shall mean Generally Accepted Accounting Principles in the United States, International Financial Reporting Standards or such other accounting principles or standards as may apply to the Company' s financial statements under United States federal securities laws from time to time.

2.4 "Award" shall mean an Option, a Restricted Stock award, a Restricted Stock Unit award, a Performance Award, a Dividend Equivalent award, a Deferred Stock award, a Stock Payment award, an award of Stock Appreciation Rights, an Other Incentive Award or a Performance Share Award, which may be awarded or granted under the Plan.

2.5 "Award Agreement" shall mean any written notice, agreement, contract or other instrument or document evidencing an Award, including through electronic medium, which shall contain such terms and conditions with respect to an Award as the Administrator shall determine, consistent with the Plan.

2.6 "Board" shall mean the Board of Directors of the Company.

2.7 "Cause" shall mean, with respect to any Participant, "Cause" as defined in such Participant' s employment agreement with the Company if such an agreement exists and contains a definition of Cause or, if no such agreement exists or such agreement does not contain a definition of Cause, then Cause shall mean (a) the Participant' s substantial and continued failure to perform material duties in a satisfactory manner where such failure causes or is reasonably expected to cause material harm to the Company (other than a failure resulting

from death or disability (as defined in Section 22(e)(3) of the Code) for thirty (30) days after written notice thereof from the Company describing the failure to perform such duties; (b) the Participant' s engaging in any material act of dishonesty, fraud, embezzlement or misrepresentation that was or is likely to be materially injurious to the Company; (c) the Participant' s knowing violation of any federal or state law or regulation applicable to the Company' s business that was or is likely to be materially injurious to the Company; (d) the Participant' s material breach of any confidentiality agreement or invention assignment agreement or any other material agreement between the Participant and the Company; (e) the Participant' s conviction of, or plea of nolo contendere to, any felony or crime of moral turpitude; (f) repeated and knowing material failure by the Participant to comply with the Company' s written policies or rules, after written notice of such failure; or (g) gross negligence or willful misconduct that does or reasonably could be expected to cause material harm to the Company.

2.8 "Change in Control" shall mean the occurrence of any of the following events:

(a) The consummation of a transaction or series of transactions (other than an offering of Shares to the general public through a registration statement filed with the Securities and Exchange Commission) whereby any "person" or related "group" of "persons" (as such terms are used in Sections 13(d) and 14(d)(2) of the Exchange Act) (other than the Company, any of its Parents or Subsidiaries, an employee benefit plan maintained by the Company or any of its Parents or Subsidiaries or a "person" that, prior to such transaction, directly or indirectly controls, is controlled by, or is under common control with, the Company) directly or indirectly acquires beneficial ownership (within the meaning of Rule 13d-3 under the Exchange Act) of securities of the Company possessing more than fifty percent (50%) of the total combined voting power of the Company' s securities outstanding immediately after such acquisition; or

(b) During any period of two (2) consecutive years, individuals who, at the beginning of such period, constitute the Board together with any new director(s) (other than a director designated by a person who shall have entered into an agreement with the Company to effect a transaction described in Section 2.8(a) or Section 2.8(c) hereof) whose election by the Board or nomination for election by the Company' s stockholders was approved by a vote of at least two-thirds (2/3) of the directors then still in office who either were directors at the beginning of the two (2)-year period or whose election or nomination for election was previously so approved, cease for any reason to constitute a majority thereof; or

(c) The consummation by the Company (whether directly involving the Company or indirectly involving the Company through one or more intermediaries) of (x) a merger, consolidation, reorganization, or business combination, (y) a sale or other disposition of all or substantially all of the Company' s assets in any single transaction or series of related

transactions or (z) the acquisition of assets or stock of another entity, in each case, other than a transaction:

(i) Which results in the Company' s voting securities outstanding immediately before the transaction continuing to represent (either by remaining outstanding or by being converted into voting securities of the Company or the person that, as a result of the transaction, controls, directly or indirectly, the Company or owns, directly or indirectly, all or substantially all of the Company' s assets or otherwise succeeds to the business of the Company (the Company or such person, the "Successor Entity")), directly or indirectly, at least a majority of the combined voting power of the Successor Entity' s outstanding voting securities immediately after the transaction, and

(ii) After which no person or group beneficially owns voting securities representing fifty percent (50%) or more of the combined voting power of the Successor Entity; provided, however, that no person or group shall be treated for purposes of this Section 2.8(c)(ii) as beneficially owning fifty percent (50%) or more of the combined voting power of the Successor Entity solely as a result of the voting power held in the Company prior to the consummation of the transaction; or

(d) The Company' s stockholders approve a liquidation or dissolution of the Company.

Notwithstanding the foregoing, if a Change in Control constitutes a payment event with respect to any Award which provides for the deferral of compensation that is subject to Section 409A of the Code, to the extent required to avoid the imposition of additional taxes under Section 409A of the Code, the transaction or event described in subsection (a), (b), (c) or (d) with respect to such Award shall only constitute a

Change in Control for purposes of the payment timing of such Award if such transaction also constitutes a "change in control event," as defined in Treasury Regulation Section 1.409A-3(i)(5). Consistent with the terms of this Section 2.8, the Administrator shall have full and final authority to determine conclusively whether a Change in Control of the Company has occurred pursuant to the above definition, the date of the occurrence of such Change in Control and any incidental matters relating thereto.

2.9 "Code" shall mean the Internal Revenue Code of 1986, as amended from time to time, together with the regulations and official guidance promulgated thereunder, whether issued prior or subsequent to the grant of any Award.

2.10 "Committee" shall mean the Compensation Committee of the Board, or another committee or subcommittee of the Board described in Article 13 hereof.

2.11 "Common Stock" shall mean the common stock of the Company, par value $0.001 per share.

2.12 "Company" shall mean Intermolecular, Inc., a Delaware corporation.

2.13 "Consultant" shall mean any consultant or adviser engaged to provide services to the Company or any Affiliate that qualifies as a consultant under the applicable rules of the Securities and Exchange Commission for registration of shares on a Form S-8 Registration

Statement or any successor Form thereto or, prior to the Public Trading Date, under Rule 701 of the Securities Act.

2.14 "Covered Employee" shall mean any Employee who is, or could become, a "covered employee" within the meaning of Section 162(m) of the Code.

2.15 "Deferred Stock" shall mean a right to receive Shares awarded under Section 9.4 hereof.

2.16 "Director" shall mean a member of the Board, as constituted from time to time.

2.17 "Dividend Equivalent" shall mean a right to receive the equivalent value (in cash or Shares) of dividends paid on Shares, awarded under Section 9.2 hereof.

2.18 "DRO" shall mean a "domestic relations order" as defined by the Code or Title I of the Employee Retirement Income Security Act of 1974, as amended from time to time, or the rules thereunder.

2.19 "Effective Date" shall mean the date on which the Company' s registration statement relating to its initial public offering becomes effective, provided that the Board has adopted the Plan prior to or on such date, subject to approval of the Plan by the Company' s stockholders.

2.20 "Eligible Individual" shall mean any person who is an Employee, a Consultant or a Non-Employee Director, as determined by the Administrator.

2.21 "Employee" shall mean any officer or other employee (as determined in accordance with Section 3401(c) of the Code) of the Company or any Affiliate.

2.22 "Equity Restructuring" shall mean a nonreciprocal transaction between the Company and its stockholders, such as a stock dividend, stock split, spin-off, rights offering or recapitalization through a large, nonrecurring cash dividend, that affects the number or kind of Shares (or other securities of the Company) or the share price of Common Stock (or other securities) and causes a change in the per share value of the Common Stock underlying outstanding stock-based Awards.

2.23 "Exchange Act" shall mean the Securities Exchange Act of 1934, as amended from time to time.

2.24 "Fair Market Value" shall mean, as of any given date, the value of a Share determined as follows:

(a) If the Common Stock is (i) listed on any established securities exchange (such as the New York Stock Exchange, the NASDAQ Global Market and the NASDAQ Global Select Market), (ii) listed on any national market system or (iii) listed, quoted or traded on any automated quotation system, its Fair Market Value shall be the closing sales price for a Share as quoted on such exchange or system for such date or, if there is no closing sales price for a Share on the date in question, the closing sales price for a Share on the last preceding date for which

such quotation exists, as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable;

(b) If the Common Stock is not listed on an established securities exchange, national market system or automated quotation system, but the Common Stock is regularly quoted by a recognized securities dealer, its Fair Market Value shall be the mean of the high bid and low asked prices for such date or, if there are no high bid and low asked prices for a Share on such date, the high bid and low asked prices for a Share on the last preceding date for which such information exists, as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable; or

(c) If the Common Stock is neither listed on an established securities exchange, national market system or automated quotation system nor regularly quoted by a recognized securities dealer, its Fair Market Value shall be established by the Administrator in good faith.

Notwithstanding the foregoing, with respect to any Award granted after the effectiveness of the Company' s registration statement relating to its initial public offering and prior to the Public Trading Date, the Fair Market Value shall mean the initial public offering price of a Share as set forth in the Company' s final prospectus relating to its initial public offering filed with the Securities and Exchange Commission.

2.25 "Greater Than 10% Stockholder" shall mean an individual then-owning (within the meaning of Section 424(d) of the Code) more than ten percent (10%) of the total combined voting power of all classes of stock of the Company or any "parent corporation" or "subsidiary corporation" (as defined in Sections 424(e) and 424(f) of the Code, respectively).

2.26 "Incentive Stock Option" shall mean an Option that is intended to qualify as an incentive stock option and conforms to the applicable provisions of Section 422 of the Code.

2.27 "Individual Award Limit" shall mean the cash and share limits applicable to Awards granted under the Plan, as set forth in Section 3.3 hereof.

2.28 "Non-Employee Director" shall mean a Director of the Company who is not an Employee.

2.29 "Non-Qualified Stock Option" shall mean an Option that is not an Incentive Stock Option or which is designated as an Incentive Stock Option but does not meet the applicable requirements of the Code.

2.30 "Option" shall mean a right to purchase Shares at a specified exercise price, granted under Article 6 hereof. An Option shall be either a Non-Qualified Stock Option or an Incentive Stock Option; provided, however, that Options granted to Non-Employee Directors and Consultants shall only be Non-Qualified Stock Options.

2.31 "Other Incentive Award" shall mean an Award denominated in, linked to or derived from Shares or value metrics related to Shares, granted pursuant to Section 9.7 hereof.

2.32 "Parent" shall mean any entity (other than the Company), whether domestic or foreign, in an unbroken chain of entities ending with the Company if each of the entities other than the Company beneficially owns, at the time of the determination, securities or interests representing more than fifty percent (50%) of the total combined voting power of all classes of securities or interests in one of the other entities in such chain.

2.33 "Participant" shall mean a person who has been granted an Award.

2.34 "Performance Award" shall mean an Award that is granted under Section 9.1 hereof.

2.35 "Performance-Based Compensation" shall mean any compensation that is intended to qualify as "performance-based compensation" as described in Section 162(m)(4)(C) of the Code.

2.36 "Performance Criteria" shall mean the criteria (and adjustments) that the Committee selects for an Award for purposes of establishing the Performance Goal or Performance Goals for a Performance Period, determined as follows:

(a) The Performance Criteria that shall be used to establish Performance Goals are limited to the following: (i) net earnings (either before or after one or more of the following: (A) interest, (B) taxes, (C) depreciation, (D) amortization and (E) non-cash equity-based compensation expense); (ii) gross or net sales or revenue; (iii) net income (either before or after taxes); (iv) adjusted net income; (v) operating earnings or profit; (vi) cash flow (including, but not limited to, operating cash flow and free cash flow); (vii) return on assets; (viii) return on capital; (ix) return on stockholders' equity; (x) total stockholder return; (xi) return on sales; (xii) gross or net profit or operating margin; (xiii) costs; (xiv) funds from operations; (xv) expenses; (xvi) working capital; (xvii) earnings per share; (xviii) adjusted earnings per Share; (xix) price per Share; (xx) regulatory body approval for commercialization of a product; (xxi) implementation or completion of critical projects; (xxii) market share; (xxiii) economic value; (xxiv) debt levels or reduction; (xxv) customer retention; (xxvi) sales-related goals; (xxvii) comparisons with other stock market indices; (xxviii) operating efficiency; (xxix) customer satisfaction and/or growth; (xxx) employee satisfaction; (xxxi) research and development achievements; (xxxii) financing and other capital raising transactions; (xxxiii) recruiting and maintaining personnel; and (xxxiv) year-end cash, any of which may be measured either in absolute terms for the Company or any operating unit of the Company or as compared to any incremental increase or decrease or as compared to results of a peer group or to market performance indicators or indices.

(b) The Administrator may, in its sole discretion, provide that one or more objectively determinable adjustments shall be made to one or more of the Performance Goals. Such adjustments may include, but are not limited to, one or more of the following: (i) items related to a change in accounting principle; (ii) items relating to financing activities; (iii) expenses for restructuring or productivity initiatives; (iv) other non-operating items; (v) items related to acquisitions; (vi) items attributable to the business operations of any entity acquired by the Company during the Performance Period; (vii) items related to the disposal or sale of a business or segment of a business; (viii) items related to discontinued operations that do

not qualify as a segment of a business under Applicable Accounting Standards; (ix) items attributable to any stock dividend, stock split, combination or exchange of stock occurring during the Performance Period; (x) any other items of significant income or expense which are determined to be appropriate adjustments; (xi) items relating to unusual or extraordinary corporate transactions, events or developments, (xii) items related to amortization of acquired intangible assets; (xiii) items that are outside the scope of the Company' s core, on-going business activities; (xiv) items related to acquired in-process research and development; (xv) items relating to changes in tax laws; (xvi) items relating to major licensing or partnership arrangements; (xvii) items relating to asset impairment charges; (xviii) items relating to gains or losses for litigation, arbitration and contractual settlements; or (xix) items relating to any other unusual or nonrecurring events or changes in

applicable laws, accounting principles or business conditions. For all Awards intended to qualify as Performance-Based Compensation, such determinations shall be made within the time prescribed by, and otherwise in compliance with, Section 162(m) of the Code.

2.37 "Performance Goals" shall mean, with respect to a Performance Period, one or more goals established in writing by the Administrator for the Performance Period based upon one or more Performance Criteria. Depending on the Performance Criteria used to establish such Performance Goals, the Performance Goals may be expressed in terms of overall Company performance or the performance of an Affiliate, a division or business unit, or one or more individuals. The achievement of each Performance Goal shall be determined in accordance with Applicable Accounting Standards, to the extent applicable.

2.38 "Performance Period" shall mean one or more periods of time, which may be of varying and overlapping durations, as the Administrator may select, over which the attainment of one or more Performance Goals will be measured for the purpose of determining a Participant' s right to, and the payment of, a Performance Award.

2.39 "Performance Share Award" shall mean a contractual right awarded under Section 9.6 hereof to receive a number of Shares based on the attainment of specified Performance Goals or other criteria determined by the Administrator.

2.40 "Permitted Transferee" shall mean, with respect to a Participant, (a) prior to the Public Trading Date, any "family member" of the Participant, as defined under Rule 701 of the Securities Act and (b) on or after the Public Trading Date, any "family member" of the Participant, as defined under the instructions to use of the Form S-8 Registration Statement under the Securities Act, or any other transferee specifically approved by the Administrator after taking into account any state, federal, local or foreign tax and securities laws applicable to transferable Awards. In addition, the Administrator, in its sole discretion, may permit a Participant to transfer an Incentive Stock Option to a trust that constitutes a Permitted Transferee if, under Section 671 of the Code and applicable state law, the Participant is considered the sole beneficial owner of the Incentive Stock Option while it is held in the trust.

2.41 "Plan" shall mean this Intermolecular, Inc. 2011 Incentive Award Plan, as it may be amended from time to time.

2.42 "Prior Plan" shall mean the Intermolecular, Inc. 2004 Equity Incentive Plan (Amended and Restated September 5, 2007), as may be amended from time to time.

2.43 "Program" shall mean any program adopted by the Administrator pursuant to the Plan containing the terms and conditions intended to govern a specified type of Award granted under the Plan and pursuant to which such type of Award may be granted under the Plan.

2.44 "Public Trading Date" shall mean the first date upon which the Common Stock is listed (or approved for listing) upon notice of issuance on any securities exchange or designated (or approved for designation) upon notice of issuance as a national market security on an interdealer quotation system.

2.45 "Restricted Stock" shall mean an award of Shares made under Article 8 hereof that is subject to certain restrictions and may be subject to risk of forfeiture or repurchase.

2.46 "Restricted Stock Unit" shall mean a contractual right awarded under Section 9.5 hereof to receive in the future a Share or the Fair Market Value of a Share in cash.

2.47 "Securities Act" shall mean the Securities Act of 1933, as amended.

2.48 "Share Limit" shall have the meaning provided in Section 3.1(a) hereof.

2.49 "Shares" shall mean shares of Common Stock.

2.50 "Stock Appreciation Right" shall mean a stock appreciation right granted under Article 10 hereof.

2.51 "Stock Payment" shall mean a payment in the form of Shares awarded under Section 9.3 hereof.

2.52 "Subsidiary" shall mean any entity (other than the Company), whether domestic or foreign, in an unbroken chain of entities beginning with the Company if each of the entities other than the last entity in the unbroken chain beneficially owns, at the time of the determination, securities or interests representing more than fifty percent (50%) of the total combined voting power of all classes of securities or interests in one of the other entities in such chain.

2.53 "Substitute Award" shall mean an Award granted under the Plan in connection with a corporate transaction, such as a merger, combination, consolidation or acquisition of property or stock, in any case, upon the assumption of, or in substitution for, an outstanding equity award previously granted by a company or other entity; provided, however, that in no event shall the term "Substitute Award" be construed to refer to an award made in connection with the cancellation and repricing of an Option or Stock Appreciation Right.

2.54 "Successor Entity" shall have the meaning provided in Section 2.8(c)(i) hereof.

2.55 "Termination of Service" shall mean:

(a) As to a Consultant, the time when the engagement of a Participant as a Consultant to the Company and its Affiliates is terminated for any reason, with or without Cause, including, without limitation, by resignation, discharge, death or retirement, but excluding terminations where the Consultant simultaneously commences or remains in employment and/or service as an Employee and/or Director with the Company or any Affiliate.

(b) As to a Non-Employee Director, the time when a Participant who is a Non-Employee Director ceases to be a Director for any reason, including, without limitation, a termination by resignation, failure to be elected, death or retirement, but excluding terminations where the Participant simultaneously commences or remains in employment or service as an Employee and/or Consultant with the Company or any Affiliate.

(c) As to an Employee, the time when the employee-employer relationship between a Participant and the Company and its Affiliates is terminated for any reason, including, without limitation, a termination by resignation, discharge, death, disability or retirement, but excluding terminations where the Participant simultaneously commences or remains in service with the Company or any Affiliate as a Consultant and/or Director.

The Administrator, in its sole discretion, shall determine the effect of all matters and questions relating to Terminations of Service, including without limitation, whether a Termination of Service has occurred, whether any Termination of Service resulted from a discharge for Cause and whether any particular leave of absence constitutes a Termination of Service. For purposes of the Plan, a Participant' s employee-employer relationship or consultancy relationship shall be deemed to be terminated in the event that the Affiliate employing or contracting with such Participant ceases to remain an Affiliate following any merger, sale of stock or other corporate transaction or event (including, without limitation, a spin-off).

ARTICLE 3.

SHARES SUBJECT TO THE PLAN

3.1 Number of Shares.

(a) Subject to Sections 3.1(b), 14.1 and 14.2 hereof, the aggregate number of Shares which may be issued or transferred pursuant to Awards under the Plan shall be equal to the sum of (i) four million two hundred twenty-five thousand six hundred forty-eight (4,225,648) Shares, (ii) any Shares which, as of October 26, 2011, are (A) available for issuance under the Prior Plan or (B) underlying awards outstanding under the Prior Plan that, on or after October 26, 2011, terminate, expire or lapse for any reason without the delivery of Shares to the holder thereof, up to a maximum of eight million three hundred ninety thousand six hundred eighty-five (8,390,685) Shares, and (iii) an annual increase on the first day of each year beginning in 2012 and ending in 2021 equal to the lesser of (A) two million five hundred thirty-five thousand three hundred eighty-nine (2,535,389) Shares, (B) four and one-half percent (4.5%) of the Shares outstanding on the last day of the immediately preceding fiscal year and (C) such smaller number

of Shares as may be determined by the Board (the "Share Limit"), all of which may be issued as Incentive Stock Options, provided, however, that notwithstanding the foregoing, Shares added to the Share Limit pursuant to Section 3.1(a)(ii) or Section 3.1(a)(iii) shall be available for issuance as Incentive Stock Options only to the extent that making such Shares available for issuance as Incentive Stock Options would not cause any Incentive Stock Option to cease to qualify as such. Notwithstanding the foregoing, to the extent permitted under applicable law and applicable stock exchange rules, Awards that provide for the delivery of Shares subsequent to the applicable grant date may be granted in excess of the Share Limit if such Awards provide for the forfeiture or cash settlement of such Awards to the extent that insufficient Shares remain under the Share Limit at the time that Shares would otherwise be issued in respect of such Award. As of October 26, 2011, no further awards may be granted under the Prior Plan; however, any awards under the Prior Plan that are outstanding as of October 26, 2011 shall continue to be subject to the terms and conditions of the Prior Plan.

(b) The following Shares shall be available for future grants of Awards under the Plan and shall be added back to the Share Limit in the same number of Shares as were debited from the Share Limit in respect of the grant of such Award (as may be adjusted in accordance with Section 14.2 hereof): (i) Shares tendered by a Participant or withheld by the Company in payment of the exercise price of an Option; (ii) Shares tendered by the Participant or withheld by the Company to satisfy any tax withholding obligation with respect to an Award; (iii) Shares subject to an Award that is forfeited, expires or is settled for cash (in whole or in part, provided that only that portion of Shares related to the cash settlement shall be added back to the Share Limit), to the extent of such forfeiture, expiration or cash settlement; and (iv) Shares subject to Stock Appreciation Rights that are not issued in connection with the settlement of the Stock Appreciation Rights on exercise thereof. Notwithstanding anything to the contrary contained herein, Shares purchased on the open market with the cash proceeds from the exercise of Options shall not be added back to the Share Limit and shall not be available for future grants of Awards. Any Shares repurchased by the Company under Section 8.4 hereof at the same price paid by the Participant so that such Shares are returned to the Company will again be available for Awards. The payment of Dividend Equivalents in cash in conjunction with any outstanding Awards shall not be counted against the Shares available for issuance under the Plan. Notwithstanding the provisions of this Section 3.1(b), no Shares may again be optioned, granted or awarded if such action would cause an Incentive Stock Option to fail to qualify as an incentive stock option under Section 422 of the Code.

(c) Substitute Awards shall not reduce the Shares authorized for grant under the Plan. Additionally, in the event that a company acquired by the Company or any Affiliate, or with which the Company or any Affiliate combines, has shares available under a pre-existing plan approved by its stockholders and not adopted in contemplation of such acquisition or combination, the shares available for grant pursuant to the terms of such pre-existing plan (as adjusted, to the extent appropriate, using the exchange ratio or other adjustment or valuation ratio or formula used in such acquisition or combination to determine the consideration payable to the holders of common stock of the entities party to such acquisition or combination) may be used for Awards under the Plan in the Board' s discretion at the time of such acquisition or combination, as applicable, and shall not reduce the Shares authorized for grant under the Plan; provided, however, that Awards using such available shares shall not be made after the date awards or grants could have been made under the terms of the pre-existing plan, absent the

acquisition or combination, and shall only be made to individuals who were not employed by or providing services to the Company or its Affiliates immediately prior to such acquisition or combination.

3.2 Stock Distributed. Any Shares distributed pursuant to an Award may consist, in whole or in part, of authorized and unissued Common Stock, treasury Common Stock or Common Stock purchased on the open market.

3.3 Limitation on Number of Shares Subject to Awards. Notwithstanding any provision in the Plan to the contrary, and subject to Section 14.2 hereof, the maximum aggregate number of Shares with respect to one or more Awards that may be granted to any one person during any calendar year (measured from the date of any grant) shall be two million (2,000,000) and the maximum aggregate amount of cash that may be paid in cash during any calendar year (measured from the date of any payment) with respect to one or more Awards payable in cash shall be two million dollars ($2,000,000) (together, the "Individual Award Limits"); provided, however, that the foregoing limitations shall not apply until the earliest of the following events to occur after the Public Trading Date: (a) the first material modification of the Plan (including any increase in the Share Limit in accordance with Section 3.1 hereof); (b) the issuance of all of the Shares reserved for issuance under the Plan; (c) the expiration of the Plan; (d) the first meeting of stockholders at which members of the Board are to be elected that occurs after the close of the third calendar year following the calendar year in which occurred the first registration of an equity security of the Company under Section 12 of the Exchange Act; or (e) such other date required by Section 162(m) of the Code.

ARTICLE 4.

GRANTING OF AWARDS

4.1 Participation. The Administrator may, from time to time, select from among all Eligible Individuals, those to whom one or more Awards shall be granted and shall determine the nature and amount of each Award, which shall not be inconsistent with the requirements of the Plan. Except as provided in Article 12 hereof regarding the automatic grant of options to Non-Employee Directors or any applicable Program, no Eligible Individual shall have any right to be granted an Award pursuant to the Plan.

4.2 Award Agreement. Each Award shall be evidenced by an Award Agreement stating the terms and conditions applicable to such Award, consistent with the requirements of the Plan and any applicable Program.

4.3 Limitations Applicable to Section 16 Persons. Notwithstanding anything contained herein to the contrary, with respect to any Award granted or awarded to any individual who is then subject to Section 16 of the Exchange Act, the Plan, any applicable Program and the applicable Award Agreement shall be subject to any additional limitations set forth in any applicable exemptive rule under Section 16 of the Exchange Act (including Rule 16b-3 of the Exchange Act and any amendments thereto) that are requirements for the application of such exemptive rule, and such additional limitations shall be deemed to be incorporated by reference into such Award to the extent permitted by applicable law.

4.4 At-Will Service. Nothing in the Plan or in any Program or Award Agreement hereunder shall confer upon any Participant any right to continue as an Employee, Director or Consultant of the Company or any Affiliate, or shall interfere with or restrict in any way the rights of the Company or any Affiliate, which rights are hereby expressly reserved, to discharge any Participant at any time for any reason whatsoever, with or without cause, and with or without notice, or to terminate or change all other terms and conditions of any Participant' s employment or engagement, except to the extent expressly provided otherwise in a written agreement between the Participant and the Company or any Affiliate.

4.5 Foreign Participants. Notwithstanding any provision of the Plan to the contrary, in order to comply with the laws in other countries in which the Company and its Affiliates operate or have Employees, Non-Employee Directors or Consultants, or in order to comply with the requirements of any foreign securities exchange, the Administrator, in its sole discretion, shall have the power and authority to: (a) determine which Affiliates shall be covered by the Plan; (b) determine which Eligible Individuals outside the United States are eligible to participate in the Plan; (c) modify the terms and conditions of any Award granted to Eligible Individuals outside the United States to comply with applicable foreign laws or listing requirements of any such foreign securities exchange; (d) establish subplans and modify exercise procedures and other terms and procedures, to the extent such actions may be necessary or advisable (and any such subplans and/or modifications shall be attached to the Plan as appendices); provided, however, that no such subplans and/or modifications shall increase the

Share Limit or Individual Award Limits contained in Sections 3.1 and 3.3 hereof, respectively; and (e) take any action, before or after an Award is made, that it deems advisable to obtain approval or comply with any necessary local governmental regulatory exemptions or approvals or listing requirements of any such foreign securities exchange. Notwithstanding the foregoing, the Administrator may not take any actions hereunder, and no Awards shall be granted, that would violate the Code, the Exchange Act, the Securities Act, the rules of the securities exchange or automated quotation system on which the Shares are listed, quoted or traded or any other applicable law.

4.6 Stand-Alone and Tandem Awards. Awards granted pursuant to the Plan may, in the sole discretion of the Administrator, be granted either alone, in addition to or in tandem with, any other Award granted pursuant to the Plan. Awards granted in addition to or in tandem with other Awards may be granted either at the same time as or at a different time from the grant of such other Awards.

ARTICLE 5.

PROVISIONS APPLICABLE TO AWARDS INTENDED TO QUALIFY AS PERFORMANCE-BASED COMPENSATION

5.1 Purpose. The Committee, in its sole discretion, may determine whether any Award is intended to qualify as Performance-Based Compensation. If the Committee, in its sole discretion, decides to grant an Award to an Eligible Individual that is intended to qualify as Performance-Based Compensation, then the provisions of this Article 5 shall control over any contrary provision contained in the Plan. The Administrator may in its sole discretion grant Awards to Eligible Individuals that are based on Performance Criteria or Performance Goals but

that do not satisfy the requirements of this Article 5 and that are not intended to qualify as Performance-Based Compensation. Unless otherwise specified by the Committee at the time of grant, the Performance Criteria with respect to an Award intended to be Performance-Based Compensation payable to a Covered Employee shall be determined on the basis of Applicable Accounting Standards.

5.2 Applicability. The grant of an Award to an Eligible Individual for a particular Performance Period shall not require the grant of an Award to such Eligible Individual in any subsequent Performance Period and the grant of an Award to any one Eligible Individual shall not require the grant of an Award to any other Eligible Individual in such period or in any other period.

5.3 Procedures with Respect to Performance-Based Awards. To the extent necessary to comply with the requirements of Section 162(m)(4)(C) of the Code, with respect to any Award which is intended to qualify as Performance-Based Compensation, no later than ninety (90) days following the commencement of any Performance Period or any designated fiscal period or period of service (or such earlier time as may be required under Section 162(m) of the Code), the Committee shall, in writing, (a) designate one or more Eligible Individuals, (b) select the Performance Criteria applicable to the Performance Period, (c) establish the Performance Goals and amounts of such Awards, as applicable, which may be earned for such Performance Period based on the Performance Goals, and (d) specify the relationship between the Performance Criteria and the Performance Goals and the amounts of such Awards, as applicable, to be earned by each Covered Employee for such Performance Period. Following the completion of each Performance Period, the Committee shall certify in writing whether and the extent to which the applicable Performance Goals have been achieved for such Performance Period. In determining the amount earned under such Awards, unless otherwise provided in an applicable Program or Award Agreement, the Committee shall have the right to reduce or eliminate (but not to increase) the amount payable at a given level of performance to take into account additional factors that the Committee may deem relevant, including the assessment of individual or corporate performance for the Performance Period.

5.4 Payment of Performance-Based Awards. Unless otherwise provided in the applicable Program or Award Agreement (and only to the extent otherwise permitted by Section 162(m)(4)(C) of the Code), the holder of an Award that is intended to qualify as Performance-Based Compensation must be employed by the Company or an Affiliate throughout the applicable Performance Period. Unless otherwise provided in the applicable Performance Goals, Program or Award Agreement, a Participant shall be eligible to receive payment pursuant to such Awards for a Performance Period only if and to the extent the Performance Goals for such applicable Performance Period are achieved.

5.5 Additional Limitations. Notwithstanding any other provision of the Plan and except as otherwise determined by the Administrator, any Award which is granted to an Eligible Individual and is intended to qualify as Performance-Based Compensation shall be subject to any additional limitations imposed under Section 162(m) of the Code that are requirements for qualification as Performance-Based Compensation, and the Plan, the Program and the Award Agreement shall be deemed amended to the extent necessary to conform to such requirements.

ARTICLE 6.

GRANTING OF OPTIONS

6.1 Granting of Options to Eligible Individuals. The Administrator is authorized to grant Options to Eligible Individuals from time to time, in its sole discretion, on such terms and conditions as it may determine which shall not be inconsistent with the Plan.

6.2 Qualification of Incentive Stock Options. No Incentive Stock Option shall be granted to any person who is not an Employee of the Company or any "parent corporation" or "subsidiary corporation" of the Company (as defined in Sections 424(e) and 424(f) of the Code, respectively). No person who qualifies as a Greater Than 10% Stockholder may be granted an Incentive Stock Option unless such Incentive Stock Option conforms to the applicable provisions of Section 422 of the Code. Any Incentive Stock Option granted under the Plan may be modified by the Administrator, with the consent of the Participant, to disqualify such Option from treatment as an "incentive stock option" under Section 422 of the Code. To the extent that the aggregate fair market value of stock with respect to which "incentive stock options" (within the meaning of Section 422 of the Code, but without regard to Section 422(d) of the Code) are exercisable for the first time by a Participant during any calendar year under the Plan and all other plans of the Company and any Affiliate corporation thereof exceeds $100,000, the Options shall be treated as Non-Qualified Stock Options to the extent required by Section 422 of the Code. The rule set forth in the preceding sentence shall be applied by taking Options and other "incentive stock options" into account in the order in which they were granted and the Fair Market Value of stock shall be determined as of the time the respective options were granted. In addition, to the extent that any Options otherwise fail to qualify as Incentive Stock Options, such Options shall be treated as Nonqualified Stock Options.

6.3 Option Exercise Price. Except as provided in Section 6.6 hereof, the exercise price per Share subject to each Option shall be set by the Administrator, but shall not be less than one hundred percent (100%) of the Fair Market Value of a Share on the date the Option is granted (or, as to Incentive Stock Options, on the date the Option is modified, extended or renewed for purposes of Section 424(h) of the Code). In addition, in the case of Incentive Stock Options granted to a Greater Than 10% Stockholder, such price shall not be less than one hundred ten percent (110%) of the Fair Market Value of a Share on the date the Option is granted (or the date the Option is modified, extended or renewed for purposes of Section 424(h) of the Code).

6.4 Option Term. The term of each Option shall be set by the Administrator in its sole discretion; provided, however, that the term shall not be more than ten (10) years from the date the Option is granted, or five (5) years from the date an Incentive Stock Option is granted to a Greater Than 10% Stockholder. The Administrator shall determine the time period, including the time period following a Termination of Service, during which the Participant has the right to exercise the vested Options, which time period may not extend beyond the stated term of the Option. Except as limited by the requirements of Section 409A or Section 422 of the Code, the Administrator may extend the term of any outstanding Option, and may extend the time period during which vested Options may be exercised, in connection with any Termination of Service of

the Participant, and, subject to Section 14.1 hereof, may amend any other term or condition of such Option relating to such a Termination of Service.

6.5 Option Vesting.

(a) The terms and conditions pursuant to which an Option vests in the Participant and becomes exercisable shall be determined by the Administrator and set forth in the applicable Award Agreement. Such vesting may be based on service with the Company or any Affiliate, any of the Performance Criteria, or any other criteria selected by the Administrator. At any time after the grant of an Option, the Administrator may, in its sole discretion and subject to whatever terms and conditions it selects, accelerate the vesting of the Option, including following a Termination of Service; provided, that in no event shall an Option become exercisable following its expiration, termination or forfeiture.

(b) No portion of an Option which is unexercisable at a Participant' s Termination of Service shall thereafter become exercisable, except as may be otherwise provided by the Administrator either in an applicable Program, the applicable Award Agreement or by action of the Administrator following the grant of the Option.

6.6 Substitute Awards. Notwithstanding the foregoing provisions of this Article 6 to the contrary, in the case of an Option that is a Substitute Award, the price per Share of the Shares subject to such Option may be less than the Fair Market Value per share on the date of grant, provided, however, that the exercise price of any Substitute Award shall be determined in accordance with the applicable requirements of Sections 424 and 409A of the Code.

6.7 Substitution of Stock Appreciation Rights. The Administrator may, in its sole discretion, substitute an Award of Stock Appreciation Rights for an outstanding Option at any time prior to or upon exercise of such Option; provided, however, that such Stock Appreciation Rights shall be exercisable with respect to the same number of Shares for which such substituted Option would have been exercisable, and shall also have the same exercise price and remaining term as the substituted Option.

ARTICLE 7.

EXERCISE OF OPTIONS

7.1 Partial Exercise. An exercisable Option may be exercised in whole or in part. However, an Option shall not be exercisable with respect to fractional shares and the Administrator may require that, by the terms of the Option, a partial exercise must be with respect to a minimum number of Shares.

7.2 Manner of Exercise. All or a portion of an exercisable Option shall be deemed exercised upon delivery of all of the following to the Secretary of the Company, or such other person or entity designated by the Administrator, or his, her or its office, as applicable:

(a) A written or electronic notice complying with the applicable rules established by the Administrator stating that the Option, or a portion thereof, is exercised. The

notice shall be signed by the Participant or other person then entitled to exercise the Option or such portion of the Option;

(b) Such representations and documents as the Administrator, in its sole discretion, deems necessary or advisable to effect compliance with all applicable provisions of the Securities Act, the Exchange Act, any other federal, state or foreign securities laws or regulations, the rules of any securities exchange or automated quotation system on which the Shares are listed, quoted or traded or any other applicable law. The Administrator may, in its sole discretion, also take such additional actions as it deems appropriate to effect such compliance including, without limitation, placing legends on share certificates and issuing stop-transfer notices to agents and registrars;

(c) In the event that the Option shall be exercised pursuant to Section 11.3 hereof by any person or persons other than the Participant, appropriate proof of the right of such person or persons to exercise the Option, as determined in the sole discretion of the Administrator; and

(d) Full payment of the exercise price and applicable withholding taxes to the stock administrator of the Company for the Shares with respect to which the Option, or portion thereof, is exercised, in a manner permitted by the Administrator in accordance with Sections 11.1 and 11.2 hereof.

7.3 Notification Regarding Disposition. The Participant shall give the Company prompt written or electronic notice of any disposition of Shares acquired by exercise of an Incentive Stock Option which occurs within (a) two (2) years from the date of granting (including the date the Option is modified, extended or renewed for purposes of Section 424(h) of the Code) such Option to such Participant, or (b) one (1) year after the transfer of such Shares to such Participant.

ARTICLE 8.

RESTRICTED STOCK

8.1 Award of Restricted Stock.

(a) The Administrator is authorized to grant Restricted Stock to Eligible Individuals, and shall determine the terms and conditions, including the restrictions, applicable to each award of Restricted Stock, which terms and conditions shall not be inconsistent with the Plan, and may impose such conditions on the issuance of such Restricted Stock as it deems appropriate.

(b) The Administrator shall establish the purchase price, if any, and form of payment for Restricted Stock; provided, however, that if a purchase price is charged, such purchase price shall be no less than the par value of the Shares to be purchased, unless otherwise permitted by applicable law. In all cases, legal consideration shall be required for each issuance of Restricted Stock to the extent required by applicable law.

8.2 Rights as Stockholders. Subject to Section 8.4 hereof, upon issuance of Restricted Stock, the Participant shall have, unless otherwise provided by the Administrator, all the rights of a stockholder with respect to said shares, subject to the restrictions in an applicable Program or in the applicable Award Agreement, including the right to receive dividends and other distributions paid or made with respect to the shares; provided, however, that, in the sole discretion of the Administrator, any extraordinary distributions with respect to the shares shall be subject to the restrictions set forth in Section 8.3 hereof.

8.3 Restrictions. All shares of Restricted Stock (including any shares received by Participants thereof with respect to shares of Restricted Stock as a result of stock dividends, stock splits or any other form of recapitalization) shall, in the terms of an applicable Program or the applicable Award Agreement, be subject to such restrictions and vesting requirements as the Administrator shall provide. Such restrictions may include, without limitation, restrictions concerning voting rights and transferability and such restrictions may lapse separately or in combination at such times and pursuant to such circumstances or based on such criteria as selected by the Administrator, including, without limitation, criteria based on the Participant' s duration of employment, directorship or consultancy with the Company, the Performance Criteria, Company or Affiliate performance, individual performance or other criteria selected by the Administrator. Restricted Stock may not be sold or encumbered until all restrictions are terminated or expire.

8.4 Repurchase or Forfeiture of Restricted Stock. If no price was paid by the Participant for the Restricted Stock, upon a Termination of Service, the Participant' s rights in unvested Restricted Stock then subject to restrictions shall lapse, and such Restricted Stock shall be surrendered to the Company and cancelled without consideration. If a price was paid by the Participant for the Restricted Stock, upon a Termination of Service, the Company shall have the right to repurchase from the Participant the unvested Restricted Stock then-subject to restrictions at a cash price per share equal to the price paid by the Participant for such Restricted Stock or such other amount as may be

specified in an applicable Program or the applicable Award Agreement. The Administrator in its sole discretion may provide that, upon certain events, including without limitation a Change in Control, the Participant' s death, retirement or disability, any other specified Termination of Service or any other event, the Participant' s rights in unvested Restricted Stock shall not lapse, such Restricted Stock shall vest and cease to be forfeitable and, if applicable, the Company shall cease to have a right of repurchase.

8.5 Certificates for Restricted Stock. Restricted Stock granted pursuant to the Plan may be evidenced in such manner as the Administrator shall determine. Certificates or book entries evidencing shares of Restricted Stock must include an appropriate legend referring to the terms, conditions, and restrictions applicable to such Restricted Stock, and the Company may, in it sole discretion, retain physical possession of any stock certificate until such time as all applicable restrictions lapse.

8.6 Section 83(b) Election. If a Participant makes an election under Section 83(b) of the Code to be taxed with respect to the Restricted Stock as of the date of transfer of the Restricted Stock rather than as of the date or dates upon which the Participant would otherwise be taxable under Section 83(a) of the Code, the Participant shall be required to deliver a copy of

such election to the Company promptly after filing such election with the Internal Revenue Service.

ARTICLE 9.

PERFORMANCE AWARDS, DIVIDEND EQUIVALENTS, STOCK PAYMENTS, DEFERRED STOCK, RESTRICTED STOCK UNITS, PERFORMANCE SHARE AWARDS, OTHER INCENTIVE AWARDS

9.1 Performance Awards.

(a) The Administrator is authorized to grant Performance Awards to any Eligible Individual and to determine whether such Performance Awards shall be Performance-Based Compensation. The value of Performance Awards may be linked to any one or more of the Performance Criteria or other specific criteria determined by the Administrator, in each case on a specified date or dates or over any period or periods determined by the Administrator. Performance Awards may be paid in cash, Shares or a combination of both, as determined by the Administrator.

(b) Without limiting Section 9.1(a) hereof, the Administrator may grant Performance Awards to any Eligible Individual in the form of a cash bonus payable upon the attainment of objective Performance Goals, or such other criteria, whether or not objective, which are established by the Administrator, in each case on a specified date or dates or over any period or periods determined by the Administrator. Any such bonuses paid to a Participant which are intended to be Performance-Based Compensation shall be based upon objectively determinable bonus formulas established in accordance with the provisions of Article 5 hereof.

9.2 Dividend Equivalents.

(a) Subject to Section 9.2(b) hereof, Dividend Equivalents may be granted by the Administrator, either alone or in tandem with another Award, based on dividends declared on the Common Stock, to be credited as of dividend payment dates during the period between the date the Dividend Equivalents are granted to a Participant and the date such Dividend Equivalents terminate or expire, as determined by the Administrator. Such Dividend Equivalents shall be converted to cash or additional Shares by such formula, at such time and subject to such limitations as may be determined by the Administrator. In addition, the Administrator may provide that Dividend Equivalents with respect to Shares covered by an Award shall only be paid out to the Participant at the same time or times and to the same extent that the vesting conditions, if any, are subsequently satisfied and the Award vests with respect to such Shares.

(b) Notwithstanding the foregoing, no Dividend Equivalents shall be payable with respect to Options or Stock Appreciation Rights, unless otherwise determined by the Administrator.

9.3 Stock Payments. The Administrator is authorized to make one or more Stock Payments to any Eligible Individual. The number or value of Shares of any Stock Payment shall be determined by the Administrator and may be based upon one or more Performance Criteria or any other specific criteria, including service to the Company or any Affiliate, determined by the

Administrator. Stock Payments may, but are not required to, be made in lieu of base salary, bonus, fees or other cash compensation otherwise payable to such Eligible Individual.

9.4 Deferred Stock. The Administrator is authorized to grant Deferred Stock to any Eligible Individual. The number of shares of Deferred Stock shall be determined by the Administrator and may be based on one or more Performance Criteria or other specific criteria, including service to the Company or any Affiliate, as the Administrator determines, in each case on a specified date or dates or over any period or periods determined by the Administrator, subject to compliance with Section 409A of the Code or an exemption therefrom. Shares underlying a Deferred Stock Award which is subject to a vesting schedule or other conditions or criteria set by the Administrator will not be issued until such vesting requirements or other conditions or criteria, as applicable, have been satisfied. Unless otherwise provided by the Administrator, a holder of Deferred Stock shall have no rights as a Company stockholder with respect to such Deferred Stock until such time as the Award has vested and the Shares underlying the Award have been issued to the Participant.

9.5 Restricted Stock Units. The Administrator is authorized to grant Restricted Stock Units to any Eligible Individual. The number and terms and conditions of Restricted Stock Units shall be determined by the Administrator. The Administrator shall specify the date or dates on which the Restricted Stock Units shall become fully vested and nonforfeitable, and may specify such conditions to vesting as it deems appropriate, including conditions based on one or more Performance Criteria or other specific criteria, including service to the Company or any Affiliate, in each case, on a specified date or dates or over any period or periods, as determined by the Administrator. The Administrator shall specify, or permit the Participant to elect, the conditions and dates upon which the Shares underlying the Restricted Stock Units shall be issued, which dates shall not be earlier than the date as of which the Restricted Stock Units vest and become nonforfeitable and which conditions and dates shall be set in accordance with the applicable provisions of Section 409A of the Code or an exemption therefrom. On the distribution dates, the Company shall issue to the Participant one unrestricted, fully transferable Share (or the Fair Market Value of one such Share in cash) for each vested and nonforfeitable Restricted Stock Unit.

9.6 Performance Share Awards. Any Eligible Individual selected by the Administrator may be granted one or more Performance Share Awards which shall be denominated in a number of Shares and the vesting of which may be linked to any one or more of the Performance Criteria, other specific performance criteria (in each case on a specified date or dates or over any period or periods determined by the Administrator) and/or time-vesting or other criteria, as determined by the Administrator.

9.7 Other Incentive Awards. The Administrator is authorized to grant Other Incentive Awards to any Eligible Individual, which Awards may cover Shares or the right to purchase Shares or have a value derived from the value of, or an exercise or conversion privilege at a price related to, or that are otherwise payable in or based on, Shares, shareholder value or shareholder return, in each case, on a specified date or dates or over any period or periods determined by the Administrator. Other Incentive Awards may be linked to any one or more of the Performance Criteria or other specific performance criteria determined appropriate by the Administrator.

9.8 Other Terms and Conditions. All applicable terms and conditions of each Award described in this Article 9, including without limitation, as applicable, the term, vesting conditions and exercise/purchase price applicable to the Award, shall be set by the Administrator in its sole discretion, provided, however, that the value of the consideration paid by a Participant for an Award shall not be less than the par value of a Share, unless otherwise permitted by applicable law.

9.9 Exercise upon Termination of Service. Awards described in this Article 9 are exercisable or distributable, as applicable, only while the Participant is an Employee, Director or Consultant, as applicable. The Administrator, however, in its sole discretion, may

provide that such an Award may be exercised or distributed subsequent to a Termination of Service as provided under an applicable Program, Award Agreement, payment deferral election and/or upon certain events, including, without limitation, a Change in Control, the Participant' s death, retirement or disability or any other specified Termination of Service.

ARTICLE 10.

STOCK APPRECIATION RIGHTS

10.1 Grant of Stock Appreciation Rights.

(a) The Administrator is authorized to grant Awards of Stock Appreciation Rights to Eligible Individuals from time to time, in its sole discretion, on such terms and conditions as it may determine consistent with the Plan.

(b) Each Award of Stock Appreciation Rights shall entitle the Participant (or other person entitled to exercise the Award of Stock Appreciation Rights pursuant to the Plan) to exercise all or a specified portion of the Award of Stock Appreciation Rights (to the extent then exercisable pursuant to its terms) and to receive from the Company an amount determined by multiplying the difference obtained by subtracting the exercise price per Share of the Stock Appreciation Rights from the Fair Market Value on the date of exercise of the Stock Appreciation Right by the number of Stock Appreciation Rights that shall have been exercised, subject to any limitations the Administrator may impose. Except as described in Section 10.1(c) hereof, the exercise price per Share subject to each Award of Stock Appreciation Rights shall be set by the Administrator, but shall not be less than one hundred percent (100%) of the Fair Market Value on the date the Stock Appreciation Rights are granted.

(c) Notwithstanding the provisions of Section 10.1(b) hereof to the contrary, in the case of an Award of Stock Appreciation Rights that is a Substitute Award, the price per Share of the Shares subject to such Stock Appreciation Rights may be less than the Fair Market Value per Share on the date of grant; provided, however, that the exercise price of any Substitute Award shall be determined in accordance with the applicable requirements of Sections 424 and 409A of the Code.

10.2 Stock Appreciation Right Vesting.

(a) The Administrator shall determine the period during which a Participant shall vest in an Award of Stock Appreciation Rights and have the right to exercise such Stock

Appreciation Rights (subject to Section 10.4 hereof) in whole or in part. Such vesting may be based on service with the Company or any Affiliate, any of the Performance Criteria or any other criteria selected by the Administrator. At any time after grant of an Award of Stock Appreciation Rights, the Administrator may, in its sole discretion and subject to whatever terms and conditions it selects, accelerate the period during which the Stock Appreciation Rights vests

(b) No portion of an Award of Stock Appreciation Rights which is unexercisable at Termination of Service shall thereafter become exercisable, except as may be otherwise provided by the Administrator either in an applicable Program or Award Agreement or by action of the Administrator following the grant of the Stock Appreciation Rights, including following a Termination of Service; provided, that in no event shall an Award of Stock Appreciation Rights become exercisable following its expiration, termination or forfeiture.

10.3 Manner of Exercise. All or a portion of an Award of exercisable Stock Appreciation Rights shall be deemed exercised upon delivery of all of the following to the stock administrator of the Company, or such other person or entity designated by the Administrator, or his, her or its office, as applicable:

(a) A written or electronic notice complying with the applicable rules established by the Administrator stating that the Stock Appreciation Rights, or a portion thereof, is exercised. The notice shall be signed by the Participant or other person then-entitled to exercise the Stock Appreciation Rights or such portion of the Stock Appreciation Rights;

(b) Such representations and documents as the Administrator, in its sole discretion, deems necessary or advisable to effect compliance with all applicable provisions of the Securities Act and any other federal, state or foreign securities laws or regulations. The Administrator may, in its sole discretion, also take whatever additional actions it deems appropriate to effect such compliance;

(c) In the event that Stock Appreciation Rights are exercised pursuant to this Section 10.3 by any person or persons other than the Participant, appropriate proof of the right of such person or persons to exercise the Stock Appreciation Rights; and

(d) Full payment of the applicable withholding taxes to the stock administrator of the Company for the Shares with respect to which the Stock Appreciation Rights, or portion thereof, are exercised, in a manner permitted by Sections 11.1 and 11.2 hereof.

10.4 Stock Appreciation Right Term. The term of each Award of Stock Appreciation Rights shall be set by the Administrator in its sole discretion; provided, however, that the term shall not be more than ten (10) years from the date the Stock Appreciation Rights are granted. The Administrator shall determine the time period, including any time period following a Termination of Service, during which the Participant has the right to exercise any vested Stock Appreciation Rights, which time period may not extend beyond the expiration date of the Award term. Except as limited by the requirements of Section 409A of the Code, the Administrator may extend the term of any outstanding Stock Appreciation Rights, and may extend the time period during which vested Stock Appreciation Rights may be exercised in connection with any Termination of Service of the Participant, and, subject to Section 14.1 hereof, may amend any

other term or condition of such Stock Appreciation Rights relating to such a Termination of Service.

ARTICLE 11.

ADDITIONAL TERMS OF AWARDS

11.1 Payment. The Administrator shall determine the methods by which payments by any Participant with respect to any Awards granted under the Plan shall be made, including, without limitation: (a) cash or check, (b) in the discretion of the Administrator, Shares (including, in the case of payment of the exercise price of an Award, Shares issuable pursuant to the exercise of the Award) held for such period of time as may be required by the Administrator in order to avoid adverse accounting consequences, in each case, having a Fair Market Value on the date of delivery equal to the aggregate payments required, (c) delivery of a written or electronic notice that the Participant has placed a market sell order with a broker with respect to Shares then-issuable upon exercise or vesting of an Award, and that the broker has been directed to pay a sufficient portion of the net proceeds of the sale to the Company in satisfaction of the aggregate payments required; provided, however, that payment of such proceeds is then made to the Company upon settlement of such sale or (d) other form of legal consideration acceptable to the Administrator. The Administrator shall also determine the methods by which Shares shall be delivered or deemed to be delivered to Participants. Notwithstanding any other provision of the Plan to the contrary, no Participant who is a Director or an "executive officer" of the Company within the meaning of Section 13(k) of the Exchange Act shall be permitted to make payment with respect to any Awards granted under the Plan, or continue any extension of credit with respect to such payment with a loan from the Company or a loan arranged by the Company in violation of Section 13(k) of the Exchange Act.

11.2 Tax Withholding. The Company and its Affiliates shall have the authority and the right to deduct or withhold, or require a Participant to remit to the Company or an Affiliate, an amount sufficient to satisfy federal, state, local and foreign taxes (including the Participant' s social security, Medicare and any other employment tax obligation) required by law to be withheld with respect to any taxable event concerning a Participant arising in connection with any Award. The Administrator may in its sole discretion and in satisfaction of the foregoing requirement allow a Participant to elect to have the Company or an Affiliate withhold Shares otherwise issuable under an Award (or allow the surrender of Shares). Unless determined otherwise by the Administrator, the number of Shares which may be so withheld or

surrendered shall be limited to the number of Shares which have a Fair Market Value on the date of withholding or repurchase no greater than the aggregate amount of such liabilities based on the minimum statutory withholding rates for federal, state, local and foreign income tax and payroll tax purposes that are applicable to such supplemental taxable income. The Administrator shall determine the fair market value of the Shares, consistent with applicable provisions of the Code, for tax withholding obligations due in connection with a broker-assisted cashless Option or Stock Appreciation Right exercise involving the sale of Shares to pay the Option or Stock Appreciation Right exercise price or any tax withholding obligation.

11.3 Transferability of Awards.

(a) Except as otherwise provided in Section 11.3(b) or (c) hereof:

(i) No Award under the Plan may be sold, pledged, assigned or transferred in any manner other than by will or the laws of descent and distribution or, subject to the consent of the Administrator, pursuant to a DRO, unless and until such Award has been exercised, or the Shares underlying such Award have been issued, and all restrictions applicable to such Shares have lapsed;

(ii) No Award or interest or right therein shall be liable for the debts, contracts or engagements of the Participant or his or her successors in interest or shall be subject to disposition by transfer, alienation, anticipation, pledge, hypothecation, encumbrance, assignment or any other means whether such disposition be voluntary or involuntary or by operation of law by judgment, levy, attachment, garnishment or any other legal or equitable proceedings (including bankruptcy) unless and until such Award has been exercised, or the Shares underlying such Award have been issued, and all restrictions applicable to such Shares have lapsed, and any attempted disposition of an Award prior to the satisfaction of these conditions shall be null and void and of no effect, except to the extent that such disposition is permitted by clause (i) of this provision; and

(iii) During the lifetime of the Participant, only the Participant may exercise an Award (or any portion thereof) granted to him or her under the Plan, unless it has been disposed of pursuant to a DRO; after the death of the Participant, any exercisable portion of an Award may, prior to the time when such portion becomes unexercisable under the Plan or the applicable Program or Award Agreement, be exercised by his personal representative or by any person empowered to do so under the deceased Participant' s will or under the then-applicable laws of descent and distribution.

(b) Notwithstanding Section 11.3(a) hereof, the Administrator, in its sole discretion, may determine to permit a Participant or a Permitted Transferee of such Participant to transfer an Award other than an Incentive Stock Option (unless such Incentive Stock Option is to become a Non-Qualified Stock Option) to any one or more Permitted Transferees of such Participant, subject to the following terms and conditions: (i) an Award transferred to a Permitted Transferee shall not be assignable or transferable by the Permitted Transferee (other than to another Permitted Transferee of the applicable Participant) other than by will or the laws of descent and distribution; (ii) an Award transferred to a Permitted Transferee shall continue to be subject to all the terms and conditions of the Award as applicable to the original Participant (other than the ability to further transfer the Award); and (iii) the Participant (or transferring Permitted Transferee) and the Permitted Transferee shall execute any and all documents requested by the Administrator, including without limitation, documents to (A) confirm the status of the transferee as a Permitted Transferee, (B) satisfy any requirements for an exemption for the transfer under applicable federal, state and foreign securities laws and (C) evidence the transfer.

(c) Notwithstanding Section 11.3(a) hereof, a Participant may, in the manner determined by the Administrator, designate a beneficiary to exercise the rights of the Participant

and to receive any distribution with respect to any Award upon the Participant' s death. A beneficiary, legal guardian, legal representative, or other person claiming any rights pursuant to the Plan is subject to all terms and conditions of the Plan and any Program or Award Agreement

applicable to the Participant, except to the extent the Plan, the Program and the Award Agreement otherwise provide, and to any additional restrictions deemed necessary or appropriate by the Administrator. If the Participant is married or a domestic partner in a domestic partnership qualified under applicable law and resides in a "community property" state, a designation of a person other than the Participant' s spouse or domestic partner, as applicable, as his or her beneficiary with respect to more than fifty percent (50%) of the Participant' s interest in the Award shall not be effective without the prior written or electronic consent of the Participant' s spouse or domestic partner. If no beneficiary has been designated or survives the Participant, payment shall be made to the person entitled thereto pursuant to the Participant' s will or the laws of descent and distribution. Subject to the foregoing, a beneficiary designation may be changed or revoked by a Participant at any time provided the change or revocation is delivered to the Administrator prior to the Participant' s death.

11.4 Conditions to Issuance of Shares.

(a) Notwithstanding anything herein to the contrary, neither the Company nor its Affiliates shall be required to issue or deliver any certificates or make any book entries evidencing Shares pursuant to the exercise of any Award, unless and until the Administrator has determined, with advice of counsel, that the issuance of such Shares is in compliance with all applicable laws, regulations of governmental authorities and, if applicable, the requirements of any exchange on which the Shares are listed or traded, and the Shares are covered by an effective registration statement or applicable exemption from registration. In addition to the terms and conditions provided herein, the Administrator may require that a Participant make such reasonable covenants, agreements, and representations as the Administrator, in its discretion, deems advisable in order to comply with any such laws, regulations, or requirements.

(b) All Share certificates delivered pursuant to the Plan and all Shares issued pursuant to book entry procedures are subject to any stop-transfer orders and other restrictions as the Administrator deems necessary or advisable to comply with federal, state, or foreign securities or other laws, rules and regulations and the rules of any securities exchange or automated quotation system on which the Shares are listed, quoted, or traded. The Administrator may place legends on any Share certificate or book entry to reference restrictions applicable to the Shares.

(c) The Administrator shall have the right to require any Participant to comply with any timing or other restrictions with respect to the settlement, distribution or exercise of any Award, including a window-period limitation, as may be imposed in the sole discretion of the Administrator.

(d) No fractional Shares shall be issued and the Administrator shall determine, in its sole discretion, whether cash shall be given in lieu of fractional Shares or whether such fractional Shares shall be eliminated by rounding down.

(e) Notwithstanding any other provision of the Plan, unless otherwise determined by the Administrator or required by any applicable law, rule or regulation, the Company and/or its Affiliates may, in lieu of delivering to any Participant certificates evidencing Shares issued in connection with any Award, record the issuance of Shares in the books of the Company (or, as applicable, its transfer agent or stock plan administrator).

11.5 Forfeiture Provisions. Pursuant to its general authority to determine the terms and conditions applicable to Awards under the Plan, the Administrator shall have the right to provide, in the terms of Awards made under the Plan, or to require a Participant to agree by separate written or electronic instrument, that: (a)(i) any proceeds, gains or other economic benefit actually or constructively received by the Participant upon any receipt or exercise of the Award, or upon the receipt or resale of any Shares underlying the Award, must be paid to the Company, and (ii) the Award shall terminate and any unexercised portion of the Award (whether or not vested) shall be forfeited, if (b)(i) a Termination of Service occurs prior to a specified date, or within a specified time period following receipt or exercise of the Award, or (ii) the Participant at any time, or during a specified time period, engages in any activity in competition with the Company, or which is inimical, contrary or harmful to the interests of the Company, as further defined by the Administrator or (iii) the Participant incurs a Termination of Service for Cause.

11.6 Repricing. Subject to limitations imposed by Section 409A of the Code or other applicable law and the limitations contained in Section 14.1 below, the Administrator shall have the authority, without the approval of the stockholders of the Company, to amend any outstanding Award, in whole or in part, to increase or reduce the price per Share or to cancel and replace an Award, in whole or in part, with cash and/or another Award, including without limitation, another Option or Stock Appreciation Right having a price per Share that is less than, greater than or equal to the price per Share of the original Award.

11.7 Cash Settlement. Without limiting the generality of any other provision of the Plan, the Administrator may provide, in an Award Agreement or subsequent to the grant of an Award, in its discretion, that any Award may be settled in cash, Shares or a combination thereof.

11.8 Leave of Absence. Unless the Administrator provides otherwise, vesting of Awards granted hereunder shall be suspended during any unpaid leave of absence. A Participant shall not cease to be considered an Employee, Non-Employee Director or Consultant, as applicable, in the case of any (a) leave of absence approved by the Company, or (b) transfer between locations of the Company or between the Company and any of its Affiliates or any successor thereof; or (c) change in status (Employee to Director, Employee to Consultant, etc.), provided that such change does not affect the specific terms applying to the Participant' s Award.

11.9 Terms May Vary Between Awards. The terms and conditions of each Award shall be determined by the Administrator in its sole discretion and the Administrator shall have complete flexibility to provide for varied terms and conditions as between any Awards, whether of the same or different Award type and/or whether granted to the same or different Participants (in all cases, subject to the terms and conditions of the Plan).

ARTICLE 12.

NON-EMPLOYEE DIRECTOR AWARDS

12.1 Non-Employee Director Awards. The Board may grant Awards to Non-Employee Directors, subject to the limitations of the Plan, pursuant to a written non-discretionary formula established by the Committee, or any successor committee thereto carrying out its responsibilities on the date of grant of any such Award (the "Non-Employee Director Equity Compensation Program"). The Non-Employee Director Equity Compensation Program shall set forth the type of Award(s) to be granted to Non-Employee Directors, the number of Shares subject to Non-Employee Director Awards, the conditions on which such Awards shall be granted, become exercisable and/or payable and expire, and such other terms and conditions as the Committee (or such other successor committee as described above) shall determine in its discretion.

ARTICLE 13.

ADMINISTRATION

13.1 Administrator. The Committee (or another committee or a subcommittee of the Board assuming the functions of the Committee under the Plan) shall administer the Plan (except as otherwise permitted herein) and, unless otherwise determined by the Board, shall consist solely of two or more Non-Employee Directors appointed by and holding office at the pleasure of the Board, each of whom is intended to qualify as a "non-employee director" as defined by Rule 16b-3 of the Exchange Act, an "outside director" for purposes of Section 162(m) of the Code and an "independent director" under the rules of any securities exchange or automated quotation system on which the Shares are listed, quoted or traded, in each case, to the extent required under such provision; provided, however, that any action taken by the Committee shall be valid and effective, whether or not members of the Committee at the time of such action are later determined not to have satisfied the requirements for membership set forth in this Section 13.l or otherwise provided in any charter of the Committee. Except as may otherwise be provided in any charter of the Committee, appointment of Committee members shall be effective upon acceptance of appointment. Committee members may resign at any time by delivering written or electronic notice to the Board. Vacancies in the Committee may only be filled by the Board. Notwithstanding the foregoing, (a) the full Board, acting by a majority of its members in office,

shall conduct the general administration of the Plan with respect to Awards granted to Non-Employee Directors and (b) the Board or Committee may delegate its authority hereunder to the extent permitted by Section 13.6 hereof.

13.2 Duties and Powers of Administrator. It shall be the duty of the Administrator to conduct the general administration of the Plan in accordance with its provisions. The Administrator shall have the power to interpret the Plan and all Programs and Award Agreements, and to adopt such rules for the administration, interpretation and application of the Plan and any Program as are not inconsistent with the Plan, to interpret, amend or revoke any such rules and to amend any Program or Award Agreement, provided that the rights or obligations of the holder of the Award that is the subject of any such Program or Award Agreement are not affected adversely by such amendment unless the consent of the Participant is obtained or such amendment is otherwise permitted under Section 14.10 hereof. Any such grant or award under the Plan need not be the same with respect to each Participant. Any such

interpretations and rules with respect to Incentive Stock Options shall be consistent with the provisions of Section 422 of the Code. In its sole discretion, the Board may at any time and from time to time exercise any and all rights and duties of the Committee under the Plan except with respect to matters which under Rule 16b-3 under the Exchange Act, Section 162(m) of the Code, or the rules of any securities exchange or automated quotation system on which the Shares are listed, quoted or traded are required to be determined in the sole discretion of the Committee.

13.3 Action by the Committee. Unless otherwise established by the Board or in any charter of the Committee, a majority of the Committee shall constitute a quorum and the acts of a majority of the members present at any meeting at which a quorum is present, and acts approved in writing by all members of the Committee in lieu of a meeting, shall be deemed the acts of the Committee. Each member of the Committee is entitled to, in good faith, rely or act upon any report or other information furnished to that member by any officer or other employee of the Company or any Affiliate, the Company' s independent certified public accountants, or any executive compensation consultant or other professional retained by the Company to assist in the administration of the Plan.

13.4 Authority of Administrator. Subject to any specific designation in the Plan, the Administrator has the exclusive power, authority and sole discretion to:

(a) Designate Eligible Individuals to receive Awards;

(b) Determine the type or types of Awards to be granted to each Eligible Individual;

(c) Determine the number of Awards to be granted and the number of Shares to which an Award will relate;

(d) Determine the terms and conditions of any Award granted pursuant to the Plan, including, but not limited to, the exercise price, grant price, or purchase price, any performance criteria, any restrictions or limitations on the Award, any schedule for vesting, lapse of forfeiture restrictions or restrictions on the exercisability of an Award, and accelerations or waivers thereof, and any provisions related to non-competition and recapture of gain on an Award, based in each case on such considerations as the Administrator in its sole discretion determines;

(e) Determine whether, to what extent, and pursuant to what circumstances an Award may be settled in, or the exercise price of an Award may be paid in cash, Shares, other Awards, or other property, or an Award may be canceled, forfeited, or surrendered;

(f) Prescribe the form of each Award Agreement, which need not be identical for each Participant;

(g) Decide all other matters that must be determined in connection with an Award;

(h) Establish, adopt, or revise any rules and regulations as it may deem necessary or advisable to administer the Plan;

(i) Interpret the terms of, and any matter arising pursuant to, the Plan, any Program or any Award Agreement; and

(j) Make all other decisions and determinations that may be required pursuant to the Plan or as the Administrator deems necessary or advisable to administer the Plan.

13.5 Decisions Binding. The Administrator' s interpretation of the Plan, any Awards granted pursuant to the Plan, any Program, any Award Agreement and all decisions and determinations by the Administrator with respect to the Plan are final, binding, and conclusive on all parties.

13.6 Delegation of Authority. To the extent permitted by applicable law or the rules of any securities exchange or automated quotation system on which the Shares are listed, quoted or traded, the Board or Committee may from time to time delegate to a committee of one or more members of the Board or, with respect to Options or other rights with respect to Shares (but not Shares themselves), one or more officers of the Company the authority to grant or amend Awards or to take other administrative actions pursuant to this Article 13; provided, however, that in no event shall an officer of the Company be delegated the authority to grant Awards to, or amend Awards held by, the following individuals: (a) individuals who are subject to Section 16 of the Exchange Act, (b) Covered Employees with respect to Awards intended to constitute Performance-Based Compensation, or (c) officers of the Company (or Directors) to whom authority to grant or amend Awards has been delegated hereunder; provided further, that any delegation of administrative authority shall only be permitted to the extent it is permissible under Section 162(m) of the Code and applicable securities laws or the rules of any securities exchange or automated quotation system on which the Shares are listed, quoted or traded. Any delegation hereunder shall be subject to the restrictions and limits that the Board or Committee specifies at the time of such delegation, and the Board may at any time rescind the authority so delegated or appoint a new delegatee. At all times, the delegatee appointed under this Section 13.6 shall serve in such capacity at the pleasure of the Board and the Committee.

ARTICLE 14.

MISCELLANEOUS PROVISIONS

14.1 Amendment, Suspension or Termination of the Plan. Except as otherwise provided in this Section 14.1, the Plan may be wholly or partially amended or otherwise modified, suspended or terminated at any time or from time to time by the Board. However, without approval of the Company' s stockholders given within twelve (12) months before or after the action by the Administrator, no action of the Administrator may, except as provided in Section 14.2 hereof, increase the Share Limit. Except as provided in Section 14.10 hereof, no amendment, suspension or termination of the Plan shall, without the consent of the Participant, impair any rights or obligations under any Award theretofore granted or awarded, unless the Award itself otherwise expressly so provides. No Awards may be granted or awarded during any

period of suspension or after termination of the Plan. The annual increase to the Share Limit (set forth in Section 3.1(a)(iii) hereof) shall terminate on the tenth (10^{th}) anniversary of the Effective Date and, from and after such tenth (10^{th}) anniversary, no additional share increases shall occur pursuant to Section 3.1(a)(iii) hereof. In addition, notwithstanding anything herein to the contrary, no Incentive Stock Option shall be granted under the Plan after the tenth (10^{th}) anniversary of October 26, 2011.

14.2 Changes in Common Stock or Assets of the Company, Acquisition or Liquidation of the Company and Other Corporate Events.

(a) In the event of any stock dividend, stock split, combination or exchange of shares, merger, consolidation or other distribution (other than normal cash dividends) of Company assets to stockholders, or any other change affecting the shares of the Company' s stock or the share price of the Company' s stock other than an Equity Restructuring, the Administrator shall make equitable adjustments, if any, to reflect such change with respect to (i) the aggregate number and kind of shares that may be issued under the Plan (including, but not limited to, adjustments of the Share Limit and Individual Award Limits); (ii) the number and kind of Shares (or other securities or property) subject to outstanding Awards; (iii) the terms and conditions of any outstanding Awards (including, without limitation, any applicable performance targets or criteria with respect thereto); and/or (iv) the grant or exercise price per share for any outstanding Awards under the Plan. Any adjustment affecting an Award intended as Performance-Based Compensation shall be made consistent with the requirements of Section 162(m) of the Code unless otherwise determined by the Administrator.

(b) In the event of any transaction or event described in Section 14.2(a) hereof or any unusual or nonrecurring transactions or events affecting the Company, any Affiliate, or the financial statements of the Company or any Affiliate, or of changes in applicable laws, regulations or accounting principles, the Administrator, in its sole discretion, and on such terms and conditions as it deems appropriate, either by the terms of the Award or by action taken prior to the occurrence of such transaction or event and either automatically or upon the Participant' s request, is hereby authorized to take any one or more of the following actions whenever the Administrator determines that such action is appropriate in order to prevent dilution or enlargement of the benefits or potential benefits intended to be made available under the Plan or with respect to any Award under the Plan, to facilitate such transactions or events or to give effect to such changes in laws, regulations or principles:

(i) To provide for either (A) termination of any such Award in exchange for an amount of cash, if any, equal to the amount that would have been attained upon the exercise of such Award or realization of the Participant' s rights (and, for the avoidance of doubt, if as of the date of the occurrence of the transaction or event described in this Section 14.2, the Administrator determines in good faith that no amount would have been attained upon the exercise of such Award or realization of the Participant' s rights, then such Award may be terminated by the Company without payment) or (B) the replacement of such Award with other rights or property selected by the Administrator in its sole discretion having an aggregate value not exceeding the amount that could have been attained upon the exercise of such Award or realization of the Participant' s rights had such Award been currently exercisable or payable or fully vested;

(ii) To provide that such Award be assumed by the successor or survivor corporation, or a parent or subsidiary thereof, or shall be substituted for by similar options, rights or awards covering the stock of the successor or survivor corporation, or a parent or subsidiary thereof, with appropriate adjustments as to the number and kind of shares and prices;

(iii) To make adjustments in the number and type of securities subject to outstanding Awards and Awards which may be granted in the future and/or in the terms, conditions and criteria included in such Awards (including the grant or exercise price, as applicable);

(iv) To provide that such Award shall be exercisable or payable or fully vested with respect to all securities covered thereby, notwithstanding anything to the contrary in the Plan or an applicable Program or Award Agreement; and

(v) To provide that the Award cannot vest, be exercised or become payable after such event.

(c) In connection with the occurrence of any Equity Restructuring, and notwithstanding anything to the contrary in Sections 14.2(a) and 14.2(b) hereof:

(i) The number and type of securities subject to each outstanding Award and/or the exercise price or grant price thereof, if applicable, shall be equitably adjusted. The adjustment provided under this Section 14.2(c)(i) shall be nondiscretionary and shall be final and binding on the affected Participant and the Company.

(ii) The Administrator shall make such equitable adjustments, if any, as the Administrator in its discretion may deem appropriate to reflect such Equity Restructuring with respect to the aggregate number and kind of shares that may be issued under the Plan (including, but not limited to, adjustments to the Share Limit and the Individual Award Limits). The adjustments provided under this Section 14.2(c) shall be nondiscretionary and shall be final and binding on the affected Participant and the Company.

(d) Change in Control.

(i) Notwithstanding any other provision of the Plan, in the event of a Change in Control, each outstanding Award shall be assumed or an equivalent Award substituted by the successor corporation or a parent or subsidiary of the successor corporation, in each case, as determined by the Administrator.

(ii) In the event that the successor corporation in a Change in Control and its parents and subsidiaries refuse to assume or substitute for any Award in accordance with Section 14.2(d)(i) hereof, each such non-assumed/substituted Award shall become fully vested and, as applicable, exercisable and shall be deemed exercised, immediately prior to the consummation of such transaction, and all forfeiture restrictions on any or all such Awards shall lapse at such time. If an Award vests and, as applicable, is exercised in lieu of assumption or substitution in connection with a Change in Control, the Administrator shall notify the Participant of such vesting and any applicable exercise period, and the Award shall terminate

upon the Change in Control. For the avoidance of doubt, if the value of an Award that is terminated in connection with this Section 14.2(d)(ii) is zero or negative at the time of such Change in Control, such Award shall be terminated upon the Change in Control without payment of consideration therefor.

(e) The Administrator may, in its sole discretion, include such further provisions and limitations in any Award, agreement or certificate, as it may deem equitable and in the best interests of the Company that are not inconsistent with the provisions of the Plan.

(f) With respect to Awards which are granted to Covered Employees and are intended to qualify as Performance-Based Compensation, no adjustment or action described in this Section 14.2 or in any other provision of the Plan shall be authorized to the extent that such adjustment or action would cause such Award to fail to so qualify as Performance-Based Compensation, unless the Administrator determines that the Award should not so qualify. No adjustment or action described in this Section 14.2 or in any other provision of the Plan shall be authorized to the extent that such adjustment or action would cause the Plan to violate Section 422(b)(1) of the Code. Furthermore, no such adjustment or action shall be authorized with respect to any Award to the extent such adjustment or action would result in short-swing profits liability under Section 16 of the Exchange Act or violate the exemptive conditions of Rule 16b-3 of the Exchange Act unless the Administrator determines that the Award is not to comply with such exemptive conditions.

(g) The existence of the Plan, any Program, any Award Agreement and/or any Award granted hereunder shall not affect or restrict in any way the right or power of the Company or the stockholders of the Company to make or authorize any adjustment, recapitalization, reorganization or other change in the Company' s capital structure or its business, any merger or consolidation of the Company, any issue of stock or of options, warrants or rights to purchase stock or of bonds, debentures, preferred or prior preference stocks whose rights are superior to or affect the Common Stock or the rights thereof or which are convertible into or exchangeable for Common Stock, or the dissolution or liquidation of the Company, or any sale or transfer of all or any part of its assets or business, or any other corporate act or proceeding, whether of a similar character or otherwise.

(h) No action shall be taken under this Section 14.2 which shall cause an Award to fail to comply with Section 409A of the Code or an exemption therefrom, in either case, to the extent applicable to such Award, unless the Administrator determines any such adjustments to be appropriate.

(i) In the event of any pending stock dividend, stock split, combination or exchange of shares, merger, consolidation or other distribution (other than normal cash dividends) of Company assets to stockholders, or any other change affecting the Shares or the share price of the Common Stock including any Equity Restructuring, for reasons of administrative convenience, the Company in its sole discretion may refuse to permit the exercise of any Award during a period of thirty (30) days prior to the consummation of any such transaction.

14.3 Approval of Plan by Stockholders. The Plan will be submitted for the approval of the Company' s stockholders within twelve (12) months following the date of the Board' s initial adoption of the Plan. Awards may be granted or awarded prior to such stockholder approval; provided, that such Awards shall not be exercisable, shall not vest and the restrictions thereon shall not lapse and no Shares shall be issued pursuant thereto prior to the time when the Plan is approved by the Company' s stockholders; provided further that if such approval has not been obtained at the end of such twelve (12)-month period, all Awards previously granted or awarded under the Plan shall thereupon be canceled and become null and void.

14.4 No Stockholders Rights. Except as otherwise provided herein or in an applicable Program or Award Agreement, a Participant shall have none of the rights of a stockholder with respect to Shares covered by any Award until the Participant becomes the record owner of such Shares.

14.5 Paperless Administration. In the event that the Company establishes, for itself or using the services of a third party, an automated system for the documentation, granting or exercise of Awards, such as a system using an internet website or interactive voice response, then the paperless documentation, granting or exercise of Awards by a Participant may be permitted through the use of such an automated system.

14.6 Effect of Plan upon Other Compensation Plans. Other than the termination of the Prior Plan, the adoption of the Plan shall not affect any other compensation or incentive plans in effect for the Company or any Affiliate. Nothing in the Plan shall be construed to limit the right of the Company or any Affiliate: (a) to establish any other forms of incentives or compensation for Employees, Directors or Consultants of the Company or any Affiliate or (b) to grant or assume options or other rights or awards otherwise than under the Plan in connection with any proper corporate purpose, including without limitation the grant or assumption of options in connection with the acquisition by purchase, lease, merger, consolidation or otherwise, of the business, stock or assets of any corporation, partnership, limited liability company, firm or association.

14.7 Compliance with Laws. The Plan, the granting and vesting of Awards under the Plan and the issuance and delivery of Shares and the payment of money under the Plan or under Awards granted or awarded hereunder are subject to compliance with all applicable federal, state, local and foreign laws, rules and regulations (including but not limited to state, federal and foreign securities law and margin requirements) and the rules of any securities exchange or automated quotation system on which the Shares are listed, quoted or traded, and to such approvals by any listing, regulatory or governmental authority as may, in the opinion of counsel for the Company, be necessary or advisable in connection therewith. Any securities delivered under the Plan shall be subject to such restrictions and the person acquiring such securities shall, if requested by the Company, provide such assurances and representations to the Company as the Company may deem necessary or desirable to assure compliance with all applicable legal requirements. To the extent permitted by applicable law, the Plan and Awards granted or awarded hereunder shall be deemed amended to the extent necessary to conform to such laws, rules and regulations.

14.8 Titles and Headings, References to Sections of the Code or Exchange Act. The titles and headings of the sections in the Plan are for convenience of reference only and, in the event of any conflict, the text of the Plan, rather than such titles or headings, shall control. References to sections of the Code or the Exchange Act shall include any amendment or successor thereto.

14.9 Governing Law. The Plan and any programs and agreements hereunder shall be administered, interpreted and enforced under the internal laws of the State of Delaware without regard to conflicts of laws thereof.

14.10 Section 409A. To the extent that the Administrator determines that any Award granted under the Plan is subject to Section 409A of the Code, the Plan, any applicable Program and the Award Agreement covering such Award shall be interpreted in accordance with Section 409A of the Code. Notwithstanding any provision of the Plan to the contrary, in the event that, following the Effective Date, the Administrator determines that any Award may be subject to Section 409A of the Code, the Administrator may adopt such amendments to the Plan, any applicable Program and the Award Agreement or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, that the Administrator determines are necessary or appropriate to avoid the imposition of taxes on the Award under Section 409A of the Code, either through compliance with the requirements of Section 409A of the Code or with an available exemption therefrom.

14.11 No Rights to Awards. No Eligible Individual or other person shall have any claim to be granted any Award pursuant to the Plan, and neither the Company nor the Administrator is obligated to treat Eligible Individuals, Participants or any other persons uniformly.

14.12 Unfunded Status of Awards. The Plan is intended to be an "unfunded" plan for incentive compensation. With respect to any payments not yet made to a Participant pursuant to an Award, nothing contained in the Plan or any Program or Award Agreement shall give the Participant any rights that are greater than those of a general creditor of the Company or any Affiliate.

14.13 Indemnification. To the extent allowable pursuant to applicable law, each member of the Board and any officer or other employee to whom authority to administer any component of the Plan is delegated shall be indemnified and held harmless by the Company from any loss, cost, liability, or expense that may be imposed upon or reasonably incurred by such member in connection with or resulting from any claim, action, suit, or proceeding to which he or she may be a party or in which he or she may be involved by reason of any action or failure to act pursuant to the Plan and against and from any and all amounts paid by him or her in satisfaction of judgment in such action, suit, or proceeding against him or her; provided, however, that he or she gives the Company an opportunity, at its own expense, to handle and defend the same before he or she undertakes to handle and defend it on his or her own behalf. The foregoing right of indemnification shall not be exclusive of any other rights of indemnification to which such persons may be entitled pursuant to the Company' s Certificate of Incorporation or Bylaws, as a matter of law, or otherwise, or any power that the Company may have to indemnify them or hold them harmless.

14.14 Relationship to other Benefits. No payment pursuant to the Plan shall be taken into account in determining any benefits under any pension, retirement, savings, profit sharing, group insurance, welfare or other benefit plan of the Company or any Affiliate except to the extent otherwise expressly provided in writing in such other plan or an agreement thereunder.

14.15 Expenses. The expenses of administering the Plan shall be borne by the Company and its Affiliates.

[*signature page follows*]

* * * * *

I hereby certify that the foregoing Plan was duly adopted by the Board of Directors of Intermolecular, Inc. on October 26, 2011.

* * * * *

I hereby certify that the foregoing Plan was approved by the stockholders of Intermolecular, Inc. on , 2011.

Executed on this day of , 2011.

Corporate Secretary

Exhibit 10.14b

INTERMOLECULAR, INC.
2011 INCENTIVE AWARD PLAN

STOCK OPTION GRANT NOTICE AND
STOCK OPTION AGREEMENT

Intermolecular, Inc., a Delaware corporation (the "***Company***"), pursuant to its 2011 Incentive Award Plan (the "***Plan***"), hereby grants to the individual listed below (the "***Optionee***"), an option to purchase the number of shares of the common stock of the Company ("***Shares***"), set forth below (the "***Option***"). This Option is subject to all of the terms and conditions set forth herein and in the Agreement attached hereto as Exhibit A (the "***Agreement***") and the Plan, which are incorporated herein by reference. Unless otherwise defined herein, the terms defined in the Plan shall have the same defined meanings in this Grant Notice and the Agreement.

Optionee:

Grant Date:

Vesting Commencement Date:

Exercise Price per Share: $[ ] /Share

Total Exercise Price: $

Total Number of Shares Subject to the Option: shares

Expiration Date:

Type of Option: ☐ Incentive Stock Option ☐ Non-Qualified Stock Option

Vesting Schedule: [To be set forth in individual agreement]

Termination: The Option shall terminate on the Expiration Date set forth above or, if earlier, in accordance with the terms of the Agreement.

By his or her signature, the Optionee agrees to be bound by the terms and conditions of the Plan, the Agreement and this Grant Notice. The Optionee has reviewed the Agreement, the Plan and this Grant Notice in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Grant Notice and fully understands all provisions of this Grant Notice, the Agreement and the Plan. The Optionee hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan or relating to the Option.

INTERMOLECULAR, INC.		**OPTIONEE**	
By:	_____	By:	_____
Print Name:	_____	Print Name:	_____
Title:	_____		
Address:	_____	Address:	_____
		Email:	_____

EXHIBIT A

TO STOCK OPTION GRANT NOTICE

STOCK OPTION AGREEMENT

Pursuant to the Stock Option Grant Notice (the "***Grant Notice***") to which this Stock Option Agreement (this "***Agreement***") is attached, Intermolecular, Inc., a Delaware corporation (the "***Company***"), has granted to the Optionee an option (the "***Option***") under the Company' s 2011 Incentive Award Plan, as amended from time to time (the "***Plan***") to purchase the number of shares of common stock of the Company ("***Shares***") indicated in the Grant Notice. Capitalized terms not specifically defined herein shall have the meanings specified in the Plan and Grant Notice.

ARTICLE I.

GENERAL

1.1 Incorporation of Terms of Plan. The Option is subject to the terms and conditions of the Plan, which are incorporated herein by reference. In the event of any inconsistency between the Plan and this Agreement, the terms of the Plan shall control.

ARTICLE II.

GRANT OF OPTION

2.1 Grant of Option. In consideration of the Optionee' s past and/or continued employment with or service to the Company or any Affiliate and for other good and valuable consideration, effective as of the Grant Date set forth in the Grant Notice (the "***Grant Date***"), the Company irrevocably grants to the Optionee the Option to purchase any part or all of the aggregate number of Shares set forth in the Grant Notice, upon the terms and conditions set forth in the Plan and this Agreement. Unless designated as a Non-Qualified Stock Option in the Grant Notice, the Option shall be an Incentive Stock Option to the maximum extent permitted by law.

2.2 Exercise Price. The exercise price of the Shares subject to the Option shall be as set forth in the Grant Notice, without commission or other charge; *provided*, *however*, that the exercise price per share of the Shares subject to the Option shall not be less than 100% of the Fair Market Value of a Share on the Grant Date. Notwithstanding the foregoing, if this Option is an Incentive Stock Option and the Optionee is a Greater Than 10% Stockholder as of the Grant Date, the exercise price per share of the Shares subject to the Option shall not be less than 110% of the Fair Market Value of a Share on the Grant Date.

2.3 Consideration to the Company. In consideration of the grant of the Option by the Company, the Optionee agrees to render faithful and efficient services to the Company or any Affiliate. Nothing in the Plan or this Agreement shall confer upon the Optionee any right to continue in the employ or service of the Company or any Affiliate or shall interfere with or restrict in any way the rights of the Company and its Affiliates, which rights are hereby expressly reserved, to discharge or terminate the services of the Optionee at any time for any reason whatsoever, with or without Cause, except to the extent expressly provided otherwise in a written agreement between the Company or an Affiliate and the Optionee.

ARTICLE III.

PERIOD OF EXERCISABILITY

3.1 Commencement of Exercisability.

(a) Subject to Sections 3.1(b), 3.2, 3.3, 5.10 and 5.13 hereof, the Option shall become vested and exercisable in such amounts and at such times as are set forth in the Grant Notice.

(b) No portion of the Option which has not become vested and exercisable as of the date of the Optionee' s Termination of Service shall thereafter become vested and exercisable, except as may be otherwise provided by the Administrator or as set forth in a written agreement between the Company and the Optionee.

3.2 Duration of Exercisability. The installments provided for in the vesting schedule set forth in the Grant Notice are cumulative. Each such installment which becomes vested and exercisable pursuant to the vesting schedule set forth in the Grant Notice shall remain vested and exercisable until it becomes unexercisable under Section 3.3 hereof.

3.3 Expiration of Option. The Option may not be exercised to any extent by anyone after the first to occur of the following events:

(a) The Expiration Date set forth in the Grant Notice;

(b) If this Option is designated as an Incentive Stock Option and the Optionee is a Greater Than 10% Stockholder as of the Grant Date, the expiration of five (5) years from the Grant Date;

(c) The date that is three (3) months from the date of the Optionee' s Termination of Service by the Company without Cause or by the Optionee for any reason (other than due to death or disability);

(d) The expiration of one (1) year from the date of the Optionee' s Termination of Service by reason of the Optionee' s death or disability; or

(e) The start of business on the date of the Optionee' s Termination of Service by the Company for Cause.

The Optionee acknowledges that an Incentive Stock Option exercised more than three (3) months after the Optionee' s Termination of Service, other than by reason of death or disability, will be taxed as a Non-Qualified Stock Option.

3.4 Special Tax Consequences. The Optionee acknowledges that, to the extent that the aggregate Fair Market Value (determined as of the time the Option is granted) of all Shares with respect to which Incentive Stock Options, including the Option, are exercisable for the first time by the Optionee in any calendar year exceeds $100,000, the Option and such other options shall be Non-Qualified Stock Options to the extent necessary to comply with the limitations imposed by Section 422(d) of the Code. The Optionee further acknowledges that the rule set forth in the preceding sentence shall be applied by taking the Option and other "incentive stock options" into account in the order in which they were granted, as determined under Section 422(d) of the Code and the Treasury Regulations thereunder.

ARTICLE IV.

EXERCISE OF OPTION

4.1 Person Eligible to Exercise. Except as provided in Section 5.2 hereof, during the lifetime of the Optionee, only the Optionee may exercise the Option or any portion thereof. After the death of the Optionee, any exercisable portion of the Option may, prior to the time when the Option becomes unexercisable under Section 3.3 hereof, be exercised by the deceased Optionee' s personal representative or by any person empowered to do so under the deceased Optionee' s will or under the then-applicable laws of descent and distribution.

4.2 Partial Exercise. Any exercisable portion of the Option or the entire Option, if then wholly exercisable, may be exercised in whole or in part at any time prior to the time when the Option or portion thereof becomes unexercisable under Section 3.3 hereof. However, the Option shall not be exercisable with respect to fractional shares.

4.3 Manner of Exercise. The Option, or any exercisable portion thereof, may be exercised solely by delivery to the Secretary of the Company (or any third party administrator or other person or entity designated by the Company) of all of the following prior to the time when the Option or such portion thereof becomes unexercisable under Section 3.3 hereof:

(a) A written or electronic notice complying with the applicable rules established by the Administrator stating that the Option, or a portion thereof, is exercised. The notice shall be signed by the Optionee or other person then entitled to exercise the Option or such portion of the Option;

(b) Full payment of the exercise price and applicable withholding taxes to the stock administrator of the Company for the Shares with respect to which the Option, or portion thereof, is exercised, in a manner permitted by Section 4.4 hereof;

(c) Any other written representations or documents as may be required in the Administrator' s sole discretion to effect compliance with all applicable provisions of the Securities Act, the Exchange Act, any other federal, state or foreign securities laws or regulations, the rules of any securities exchange or automated quotation system on which the Shares are listed, quoted or traded or any other applicable law; and

(d) In the event the Option or portion thereof shall be exercised pursuant to Section 4.1 hereof by any person or persons other than the Optionee, appropriate proof of the right of such person or persons to exercise the Option.

Notwithstanding any of the foregoing, the Company shall have the right to specify all conditions of the manner of exercise, which conditions may vary by country and which may be subject to change from time to time.

4.4 Method of Payment. Payment of the exercise price shall be by any of the following, or a combination thereof, at the election of the Optionee:

(a) Cash;

(b) Check;

(c) With the consent of the Administrator, delivery of a written or electronic notice that the Optionee has placed a market sell order with a broker with respect to Shares then issuable upon exercise of the Option, and that the broker has been directed to pay a sufficient portion of the net proceeds of the sale to the Company in satisfaction of the aggregate exercise price; *provided*, that payment of such proceeds is then made to the Company upon settlement of such sale;

(d) With the consent of the Administrator, surrender of other Shares which have been held by the Optionee for such period of time as may be required by the Administrator in order to avoid adverse accounting consequences and having a Fair Market Value on the date of surrender equal to the aggregate exercise price of the Shares with respect to which the Option or portion thereof is being exercised;

(e) With the consent of the Administrator, surrendered Shares issuable upon the exercise of the Option having a Fair Market Value on the date of exercise equal to the aggregate exercise price of the Shares with respect to which the Option or portion thereof is being exercised; or

(f) With the consent of the Administrator, such other form of legal consideration as may be acceptable to the Administrator.

4.5 Conditions to Issuance of Stock Certificates. The Shares deliverable upon the exercise of the Option, or any portion thereof, may be either previously authorized but unissued Shares, treasury Shares or issued Shares which have then been reacquired by the Company. Such Shares shall be fully paid and nonassessable. The Company shall not be required to issue or deliver any certificates or make any book entries evidencing Shares purchased upon the exercise of the Option or portion thereof prior to fulfillment of the conditions set forth in Section 11.4 of the Plan.

4.6 Rights as Stockholder. The holder of the Option shall not be, nor have any of the rights or privileges of, a stockholder of the Company, including, without limitation, voting rights and rights to dividends, in respect of any Shares purchasable upon the exercise of any part of the Option unless and until such Shares shall have been issued by the Company and held of record by such holder (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company). No adjustment will be made for a dividend or other right for which the record date is prior to the date the Shares are issued, except as provided in Section 14.2 of the Plan.

ARTICLE V.

OTHER PROVISIONS

5.1 Administration. The Administrator shall have the power to interpret the Plan and this Agreement and to adopt such rules for the administration, interpretation and application of the Plan as are consistent therewith and to interpret, amend or revoke any such rules. All actions taken and all interpretations and determinations made by the Administrator in good faith shall be final and binding upon the Optionee, the Company and all other interested persons. No member of the Administrator or the Board shall be personally liable for any action, determination or interpretation made in good faith with respect to the Plan, this Agreement or the Option.

5.2 Transferability of Option. Except as otherwise set forth in the Plan:

(a) The Option may not be sold, pledged, assigned or transferred in any manner other than by will or the laws of descent and distribution or, subject to the consent of the Administrator,

pursuant to a DRO, unless and until the Option has been exercised and the shares underlying the Option have been issued, and all restrictions applicable to such shares have lapsed;

(b) The Option shall not be liable for the debts, contracts or engagements of the Optionee or the Optionee' s successors in interest or shall be subject to disposition by transfer, alienation, anticipation, pledge, hypothecation, encumbrance, assignment or any other means whether such disposition be voluntary or involuntary or by operation of law by judgment, levy, attachment, garnishment or any other legal or equitable proceedings (including bankruptcy) unless and until the Option has been exercised, and any attempted disposition thereof prior to exercise shall be null and void and of no effect, except to the extent that such disposition is permitted by Section 5.2(a) hereof; and

(c) During the lifetime of the Optionee, only the Optionee may exercise the Option (or any portion thereof), unless it has been disposed of pursuant to a DRO; after the death of the Optionee, any exercisable portion of the Option may, prior to the time when such portion becomes unexercisable under the Plan or this Agreement, be exercised by the Optionee' s personal representative or by any person empowered to do so under the deceased Optionee' s will or under the then-applicable laws of descent and distribution.

(d) Notwithstanding any other provision in this Agreement, the Optionee may, in the manner determined by the Administrator, designate a beneficiary to exercise the rights of the Optionee and to receive any distribution with respect to the Option upon the Optionee' s death. A beneficiary, legal guardian, legal representative, or other person claiming any rights pursuant to the Plan is subject to all terms and conditions of the Plan and this Agreement, except to the extent the Plan and this Agreement otherwise provide, and to any additional restrictions deemed necessary or appropriate by the Administrator. If the Optionee is married or a domestic partner in a domestic

partnership qualified under applicable law and resides in a community property state, a designation of a person other than the Optionee' s spouse or domestic partner, as applicable, as his or her beneficiary with respect to more than 50% of the Optionee' s interest in the Option shall not be effective without the prior written consent of the Optionee' s spouse or domestic partner. If no beneficiary has been designated or survives the Optionee, payment shall be made to the person entitled thereto pursuant to the Optionee' s will or the laws of descent and distribution. Subject to the foregoing, a beneficiary designation may be changed or revoked by the Optionee at any time provided the change or revocation is filed with the Administrator prior to the Optionee' s death.

5.3 Tax Consultation. The Optionee understands that the Optionee may suffer adverse tax consequences as a result of the grant, vesting and/or exercise of the Option, and/or with the purchase or disposition of the Shares subject to the Option. The Optionee represents that the Optionee has consulted with any tax consultants the Optionee deems advisable in connection with the purchase or disposition of such Shares and that the Optionee is not relying on the Company for any tax advice.

5.4 Adjustments. The Optionee acknowledges that the Option is subject to modification and termination in certain events as provided in this Agreement and Article 14 of the Plan.

5.5 Notices. Any notice to be given under the terms of this Agreement to the Company shall be addressed to the Company in care of the Secretary of the Company at the at the Company' s principal office, and any notice to be given to the Optionee shall be addressed to the Optionee' s last address reflected on the Company' s records. Any notice which is required to be given to the Optionee shall, if the Optionee is then deceased, be given to the person entitled to exercise his or her Option pursuant to Section 4.1 hereof by written notice under this Section 5.5. Any notice shall be deemed duly given when sent via email or when sent by reputable overnight courier or by certified mail (return receipt requested) through the United States Postal Service.

5.6 Optionee' s Representations. If the Shares purchasable pursuant to the exercise of this Option have not been registered under the Securities Act or any applicable state laws on an effective registration statement at the time this Option is exercised, the Optionee shall, if required by the Company, concurrently with the exercise of all or any portion of this Option, make such written representations as are deemed necessary or appropriate by the Company and/or its counsel.

5.7 Titles. Titles are provided herein for convenience only and are not to serve as a basis for interpretation or construction of this Agreement.

5.8 Governing Law. The laws of the State of Delaware shall govern the interpretation, validity, administration, enforcement and performance of the terms of this Agreement regardless of the law that might be applied under principles of conflicts of laws.

5.9 Conformity to Securities Laws. The Optionee acknowledges that the Plan and this Agreement are intended to conform to the extent necessary with all provisions of the Securities Act and the Exchange Act and any and all regulations and rules promulgated by the Securities and Exchange Commission thereunder, and state securities laws and regulations. Notwithstanding anything herein to the contrary, the Plan shall be administered, and the Option is granted and may be exercised, only in such a manner as to conform to such laws, rules and regulations. To the extent permitted by applicable law, the Plan and this Agreement shall be deemed amended to the extent necessary to conform to such laws, rules and regulations.

5.10 Amendments, Suspension and Termination. To the extent permitted by the Plan, this Agreement may be wholly or partially amended or otherwise modified, suspended or terminated at any time or from time to time by the Administrator or the Board*, provided, however*, that, except as may otherwise be provided by the Plan, no amendment, modification, suspension or termination of this Agreement shall adversely affect the Option in any material way without the prior written consent of the Optionee.

5.11 Successors and Assigns. The Company may assign any of its rights under this Agreement to single or multiple assignees, and this Agreement shall inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer herein set

forth in this Article 5, this Agreement shall be binding upon the Optionee and his or her heirs, executors, administrators, successors and assigns.

5.12 Notification of Disposition. If this Option is designated as an Incentive Stock Option, the Optionee shall give prompt notice to the Company of any disposition or other transfer of any Shares acquired under this Agreement if such disposition or transfer is made (a) within two (2) years from the Grant Date with respect to such Shares or (b) within one (1) year after the transfer of such Shares to the Optionee. Such notice shall specify the date of such disposition or other transfer and the amount realized, in cash, other property, assumption of indebtedness or other consideration, by the Optionee in such disposition or other transfer.

5.13 Limitations Applicable to Section 16 Persons. Notwithstanding any other provision of the Plan or this Agreement, if the Optionee is subject to Section 16 of the Exchange Act, then the Plan, the Option and this Agreement shall be subject to any additional limitations set forth in any applicable exemptive rule under Section 16 of the Exchange Act (including any amendment to Rule 16b-3 of the Exchange Act) that are requirements for the application of such exemptive rule. To the extent permitted by applicable law, this Agreement shall be deemed amended to the extent necessary to conform to such applicable exemptive rule.

5.14 Not a Contract of Service Relationship. Nothing in this Agreement or in the Plan shall confer upon the Optionee any right to continue to serve as an Employee or other service provider of the Company or any of its Affiliates or shall interfere with or restrict in any way the rights of the Company and its Affiliates, which rights are hereby expressly reserved, to discharge or terminate the services of the Optionee at any time for any reason whatsoever, with or without Cause, except to the extent expressly provided otherwise in a written agreement between the Company or an Affiliate and the Optionee.

5.15 Entire Agreement. The Plan, the Grant Notice and this Agreement (including all Exhibits thereto, if any) constitute the entire agreement of the parties and supersede in their entirety all prior undertakings and agreements of the Company and the Optionee with respect to the subject matter hereof.

5.16 Section 409A. Notwithstanding any other provision of the Plan, this Agreement or the Grant Notice, the Plan, this Agreement and the Grant Notice shall be interpreted in accordance with the requirements of Section 409A of the Code. The Administrator may, in its discretion, adopt such amendments to the Plan, this Agreement or the Grant Notice or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, as the Administrator determines are necessary or appropriate to comply with the requirements of Section 409A of the Code.

INTERMOLECULAR, INC. 2011 INCENTIVE AWARD PLAN

RESTRICTED STOCK AWARD GRANT NOTICE

Intermolecular, Inc., a Delaware corporation, (the "***Company***"), pursuant to its 2011 Incentive Award Plan, as amended from time to time (the "***Plan***"), hereby grants to the individual listed below (the "***Participant***"), in consideration of the mutual agreements set forth herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the number of shares of the Company' s Common Stock set forth below (the "***Shares***"). This Restricted Stock award is subject to all of the terms and conditions as set forth herein and in the Restricted Stock Award Agreement attached hereto as Exhibit A (the "***Restricted Stock Agreement***") (including without limitation the Restrictions on the Shares set forth in the Restricted Stock Agreement) and the Plan, each of which is incorporated herein by reference. Unless otherwise defined herein, the terms defined in the Plan shall have the same defined meanings in this Restricted Stock Award Grant Notice (the "***Grant Notice***") and the Restricted Stock Agreement.

Participant:	[ ]
Grant Date:	[ ]
Total Number of Shares of Restricted Stock:	[ ] Shares
Vesting Commencement Date:	[ ]
Vesting Schedule:	[ ]

By his or her signature and the Company' s signature below, the Participant agrees to be bound by the terms and conditions of the Plan, the Restricted Stock Agreement and this Grant Notice. The Participant has reviewed the Restricted Stock Agreement, the Plan and this Grant Notice in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Grant Notice and fully understands all provisions of this Grant Notice, the Restricted Stock Agreement and the Plan. The Participant hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan, this Grant Notice or the Restricted Stock Agreement. In addition, by signing below, the Participant also agrees that the Company, in its sole discretion, may satisfy any withholding obligations in accordance with Section 2.2(c) of the Restricted Stock Agreement by (i) withholding shares of Common Stock otherwise issuable to the Participant upon vesting of the shares of Restricted Stock, (ii) instructing a broker on the Participant' s behalf to sell shares of Common Stock otherwise issuable to the Participant upon vesting of the shares of Restricted Stock and submit the proceeds of such sale to the Company, or (iii) using any other method permitted by Section 2.2(c) of the Restricted Stock Agreement or the Plan.

INTERMOLECULAR, INC.:		**PARTICIPANT:**	
By:	_____	By:	_____
Print Name:	_____	Print Name:	_____
Title:	_____		
Address:	_____	Address:	_____
	_____		_____

EXHIBIT A
TO RESTRICTED STOCK AWARD GRANT NOTICE

RESTRICTED STOCK AWARD AGREEMENT

Pursuant to the Restricted Stock Award Grant Notice (the "***Grant Notice***") to which this Restricted Stock Award Agreement (this "***Agreement***") is attached, Intermolecular, Inc., a Delaware corporation (the "***Company***") has granted to the Participant the number of shares of Restricted Stock (the "***Shares***") under the Company' s 2011 Incentive Award Plan, as amended from time to time (the "***Plan***"), as set forth in the Grant Notice. Capitalized terms not specifically defined herein shall have the meanings specified in the Plan and Grant Notice.

ARTICLE I.

GENERAL

1.1 Incorporation of Terms of Plan. The Award (as defined below) is subject to the terms and conditions of the Plan, which are incorporated herein by reference. In the event of any inconsistency between the Plan and this Agreement, the terms of the Plan shall control.

ARTICLE II.

AWARD OF RESTRICTED STOCK

2.1 Award of Restricted Stock.

(a) Award. Pursuant to the Grant Notice and upon the terms and conditions set forth in the Plan and this Agreement, effective as of the Grant Date set forth in the Grant Notice, the Company has granted to the Participant an award of Restricted Stock (the "***Award***") under the Plan in consideration of the Participant' s past and/or continued employment with or service to the Company or any Affiliate, and for other good and valuable consideration. The number of Shares subject to the Award is set forth in the Grant Notice. The Participant is an Employee, Director or Consultant of the Company or one of its Affiliates.

(b) Book Entry Form; Certificates. At the sole discretion of the Administrator, the Shares will be issued in either (i) uncertificated form, with the Shares recorded in the name of the Participant in the books and records of the Company' s transfer agent with appropriate notations regarding the restrictions on transfer imposed pursuant to this Agreement, and upon vesting and the satisfaction of all conditions set forth in Sections 2.2(b) and (d) hereof, the Company shall remove such notations on any such vested Shares in accordance with Section 2.2(e) below; or (ii) certificated form pursuant to the terms of Sections 2.1(c), (d) and (e) below.

(c) Legend. Certificates representing Shares issued pursuant to this Agreement shall, until all Restrictions (as defined below) imposed pursuant to this Agreement lapse or have been removed and the Shares have thereby become vested or the Shares represented thereby have been forfeited hereunder, bear the following legend (or such other legend as shall be determined by the Administrator):

"THE SECURITIES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN VESTING REQUIREMENTS AND MAY BE SUBJECT TO FORFEITURE UNDER THE TERMS OF A RESTRICTED STOCK AWARD AGREEMENT, BY AND BETWEEN INTERMOLECULAR, INC. AND THE REGISTERED OWNER OF

SUCH SHARES, AND SUCH SHARES MAY NOT BE, DIRECTLY OR INDIRECTLY, OFFERED, TRANSFERRED, SOLD, ASSIGNED, PLEDGED, HYPOTHECATED OR OTHERWISE DISPOSED OF UNDER ANY CIRCUMSTANCES, EXCEPT PURSUANT TO THE PROVISIONS OF SUCH AGREEMENT."

(d) Escrow. The Secretary of the Company or such other escrow holder as the Administrator may appoint may retain physical custody of any certificates representing the Shares until all of the Restrictions on transfer imposed pursuant to this Agreement lapse or shall have been removed; in such event, the Participant shall not retain physical custody of any certificates representing unvested Shares issued to him or her. The Participant, by acceptance of the Award, shall be deemed to appoint, and does so appoint, the Company and each of

its authorized representatives as the Participant' s attorney(s)-in-fact to effect any transfer of unvested forfeited Shares (or Shares otherwise reacquired by the Company hereunder) to the Company as may be required pursuant to the Plan or this Agreement and to execute such documents as the Company or such representatives deem necessary or advisable in connection with any such transfer.

(e) Removal of Notations; Delivery of Certificates Upon Vesting. As soon as administratively practicable after the vesting of any Shares subject to the Award pursuant to Section 2.2(b) hereof, the Company shall, as applicable, either remove the notations on any Shares subject to the Award issued in book entry form which have vested or deliver to the Participant a certificate or certificates evidencing the number of Shares subject to the Award which have vested (or, in either case, such lesser number of Shares as may be permitted pursuant to Section 11.2 of the Plan). The Participant (or the beneficiary or personal representative of the Participant in the event of the Participant' s death or incapacity, as the case may be) shall deliver to the Company any representations or other documents or assurances required by the Company. The Shares so delivered shall no longer be subject to the Restrictions hereunder.

2.2 Restrictions.

(a) Forfeiture. Notwithstanding any contrary provision of this Agreement, upon the Participant' s Termination of Service for any or no reason, any portion of the Award (and the Shares subject thereto) which has not vested prior to or in connection with such Termination of Service (after taking into consideration any accelerated vesting and lapsing of Restrictions which may occur in connection with such Termination of Service (if any)) shall thereupon be forfeited immediately and without any further action by the Company, and the Participant' s rights in any Shares and such portion of the Award shall thereupon lapse and expire. For purposes of this Agreement, "***Restrictions***" shall mean the restrictions on sale or other transfer set forth in Section 3.2 hereof and the exposure to forfeiture set forth in this Section 2.2(a).

(b) Vesting and Lapse of Restrictions. Subject to Section 2.2(a) above, the Award shall vest and Restrictions shall lapse in accordance with the vesting schedule set forth in the Grant Notice (rounding down to the nearest whole Share).

(c) Tax Withholding. The Company or its Affiliates shall be entitled to require a cash payment (or to elect, or permit the Participant to elect, such other form of payment determined in accordance with Section 11.2 of the Plan) by or on behalf of the Participant and/or to deduct from other compensation payable to the Participant any sums required by federal, state or local tax law to be withheld with respect to the grant or vesting of the Award or the lapse of the Restrictions hereunder. In satisfaction of the foregoing requirement with respect to the grant or vesting of the Award or the lapse of the Restrictions hereunder, unless otherwise determined by the Company, the Company or its Affiliates

shall withhold Shares otherwise issuable under the Award having a Fair Market Value equal to the sums required to be withheld by federal, state and/or local tax law. The number of Shares which shall be so withheld in order to satisfy such federal, state and/or local withholding tax liabilities shall be limited to the number of shares which have a Fair Market Value on the date of withholding equal to the aggregate amount of such liabilities based on the minimum statutory withholding rates for federal, state and/or local tax purposes that are applicable to such supplemental taxable income. Notwithstanding any other provision of this Agreement (including without limitation Section 2.1(b) hereof), the Company shall not be obligated to deliver any new certificate representing Shares to the Participant or the Participant' s legal representative or enter any such Shares in book entry form unless and until the Participant or the Participant' s legal representative, as applicable, shall have paid or otherwise satisfied in full the amount of all federal, state and local taxes applicable to the taxable income of the Participant resulting from the grant or vesting of the Award or the issuance of Shares hereunder.

(d) Conditions to Delivery of Shares. Subject to Section 2.1 above, the Shares deliverable under this Award may be either previously authorized but unissued Shares, treasury Shares or Shares purchased on the open market. Such Shares shall be fully paid and nonassessable. The Company shall not be required to issue or deliver any Shares under this Award prior to fulfillment of the conditions set forth in Section 11.4 of the Plan.

Notwithstanding the foregoing, the issuance of such Shares shall not be delayed if and to the extent that such delay would result in a violation of Section 409A of the Code. In the event that the Company delays the issuance of such Shares because it reasonably determines that the issuance of such Shares will violate federal securities laws or other applicable law, such issuance shall be made at the earliest date at which the Company reasonably determines that issuing such Shares will not cause such violation, as required by Treasury Regulation Section 1.409A-2(b)(7)(ii).

(e) To ensure compliance with the Restrictions, the provisions of the charter documents of the Company, and/or state and federal securities and other laws and for other proper purposes, the Company may issue appropriate "stop transfer" and other instructions to its transfer agent with respect to the Restricted Stock. The Company shall notify the transfer agent as and when the Restrictions lapse.

2.3 Consideration to the Company. In consideration of the grant of the Award pursuant hereto, the Participant agrees to render faithful and efficient services to the Company or any Affiliate.

ARTICLE III.

OTHER PROVISIONS

3.1 Section 83(b) Election. If the Participant makes an election under Section 83(b) of the Code to be taxed with respect to the Restricted Stock as of the date of transfer of the Restricted Stock rather than as of the date or dates upon which the Participant would otherwise be taxable under Section 83(a) of the Code, the Participant hereby agrees to deliver a copy of such election to the Company promptly after filing such election with the Internal Revenue Service.

3.2 Restricted Stock Not Transferable. Until the Restrictions hereunder lapse or expire pursuant to this Agreement and the Shares vest, the Restricted Stock (including any Shares received by holders thereof with respect to Restricted Stock as a result of stock dividends, stock splits or any other form of recapitalization) shall be subject to the restrictions on transferability set forth in Section 11.3 of the Plan; *provided, however*, that this Section 3.2 notwithstanding, with the consent of the Administrator,

the Shares may be transferred to one or more Permitted Transferees, subject to and in accordance with Section 11.3 of the Plan.

3.3 Rights as Stockholder. Except as otherwise provided herein, upon the Grant Date, the Participant shall have all the rights of a stockholder of the Company with respect to the Shares, subject to the Restrictions, including, without limitation, voting rights and rights to receive any cash or stock dividends, in respect of the Shares subject to the Award and deliverable hereunder.

3.4 Not a Contract of Service Relationship. Nothing in this Agreement or in the Plan shall confer upon the Participant any right to continue to serve as an Employee or other service provider of the Company or any of its Affiliates or shall interfere with or restrict in any way the rights of the Company and its Affiliates, which rights are hereby expressly reserved, to discharge or terminate the services of the Participant at any time for any reason whatsoever, with or without Cause, except to the extent expressly provided otherwise in a written agreement between the Company or an Affiliate and the Participant.

3.5 Governing Law. The laws of the State of Delaware shall govern the interpretation, validity, administration, enforcement and performance of the terms of this Agreement regardless of the law that might be applied under principles of conflicts of laws.

3.6 Conformity to Securities Laws. The Participant acknowledges that the Plan and this Agreement are intended to conform to the extent necessary with all provisions of the Securities Act and the Exchange Act, and any and all regulations and rules promulgated by the Securities and Exchange Commission thereunder, as well as all applicable state securities laws and regulations. Notwithstanding anything herein to the contrary, the Plan shall be administered, and the Award is granted, only in such a manner as to conform to such laws, rules and regulations. To the extent permitted by applicable law, the Plan and this Agreement shall be deemed amended to the extent necessary to conform to such laws, rules and regulations.

3.7 Amendment, Suspension and Termination. To the extent permitted by the Plan, this Agreement may be wholly or partially amended or otherwise modified, suspended or terminated at any time or from time to time by the Administrator or the Board; *provided, however*, that, except as may otherwise be provided by the Plan, no amendment, modification, suspension or termination of this Agreement shall adversely affect the Award in any material way without the prior written consent of the Participant.

3.8 Notices. Any notice to be given under the terms of this Agreement shall be addressed to the Company in care of the Secretary of the Company at the Company' s principal office, and any notice to be given to the Participant shall be addressed to the Participant at the Participant' s last address reflected on the Company' s records. Any notice shall be deemed duly given when sent via email or when sent by reputable overnight courier or by certified mail (return receipt requested) through the United States Postal Service.

3.9 Successors and Assigns. The Company may assign any of its rights under this Agreement to single or multiple assignees, and this Agreement shall inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer set forth in Section 3.2 hereof, this Agreement shall be binding upon the Participant and his or her heirs, executors, administrators, successors and assigns.

3.10 Limitations Applicable to Section 16 Persons. Notwithstanding any other provision of the Plan or this Agreement, if the Participant is subject to Section 16 of the Exchange Act, then the Plan, the Award and this Agreement shall be subject to any additional limitations set forth in any applicable

exemptive rule under Section 16 of the Exchange Act (including any amendment to Rule 16b-3 of the Exchange Act) that are requirements for the application of such exemptive rule. To the extent permitted by applicable law, this Agreement shall be deemed amended to the extent necessary to conform to such applicable exemptive rule.

3.11 Entire Agreement. The Plan, the Grant Notice and this Agreement (including all Exhibits thereto, if any) constitute the entire agreement of the parties and supersede in their entirety all prior undertakings and agreements of the Company and the Participant with respect to the subject matter hereof.

3.12 Limitation on the Participant' s Rights. Participation in the Plan confers no rights or interests other than as herein provided. This Agreement creates only a contractual obligation on the part of the Company as to amounts payable and shall not be construed as creating a trust. The Plan, in and of itself, has no assets. The Participant shall have only the rights of a general unsecured creditor of the Company and its Affiliates with respect to amounts credited and benefits payable, if any, with respect to the Shares issuable hereunder.

Exhibit 10.14d

INTERMOLECULAR, INC.
2011 INCENTIVE AWARD PLAN

RESTRICTED STOCK UNIT AWARD GRANT NOTICE

Intermolecular, Inc., a Delaware corporation, (the "***Company***"), pursuant to its 2011 Incentive Award Plan, as amended from time to time (the "***Plan***"), hereby grants to the holder listed below (the "***Participant***"), an award of restricted stock units ("***Restricted Stock Units***" or "***RSUs***"). Each vested Restricted Stock Unit represents the right to receive, in accordance with the Restricted Stock Unit Award Agreement attached hereto as Exhibit A (the "***Agreement***"), one share of Common Stock ("***Share***"). This award of Restricted Stock Units is subject to all of the terms and conditions set forth herein and in the Agreement and the Plan, each of which are incorporated herein by reference. Unless otherwise defined herein, the terms defined in the Plan shall have the same defined meanings in this Restricted Stock Unit Award Grant Notice (the "***Grant Notice***") and the Agreement.

Participant:	[ ]
Grant Date:	[ ]
Total Number of RSUs:	[ ]
Vesting Commencement Date:	[ ]
Vesting Schedule:	[ ]
Termination:	If the Participant experiences a Termination of Service prior to the applicable vesting date, all RSUs that have not become vested on or prior to the date of such Termination of Service (after taking into consideration any vesting that may occur in connection with such Termination of Service, if any) will thereupon be automatically forfeited by the Participant without payment of any consideration therefor.

By his or her signature and the Company' s signature below, the Participant agrees to be bound by the terms and conditions of the Plan, the Agreement and this Grant Notice. The Participant has reviewed the Agreement, the Plan and this Grant Notice in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Grant Notice and fully understands all provisions of this Grant Notice, the Agreement and the Plan. The Participant hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan, this Grant Notice or the Agreement. In addition, by signing below, the Participant also agrees that the Company, in its sole discretion, may satisfy any withholding obligations in accordance with Section 2.6(b) of the Agreement by (i) withholding shares of Common Stock otherwise issuable to the Participant upon vesting of the RSUs, (ii) instructing a broker on the Participant' s behalf to sell shares of Common Stock otherwise issuable to the Participant upon vesting of the RSUs and submit the proceeds of such sale to the Company, or (iii) using any other method permitted by Section 2.6(b) of the Agreement or the Plan

INTERMOLECULAR, INC.:		**PARTICIPANT:**	
By:	_____	By:	_____
Print Name:	_____	Print Name:	_____
Title:	_____		
Address:	_____	Address:	_____

EXHIBIT A
TO RESTRICTED STOCK UNIT AWARD GRANT NOTICE

RESTRICTED STOCK UNIT AWARD AGREEMENT

Pursuant to the Restricted Stock Unit Award Grant Notice (the "***Grant Notice***") to which this Restricted Stock Unit Award Agreement (this "***Agreement***") is attached, Intermolecular, Inc., a Delaware corporation (the "***Company***"), has granted to the Participant an award of restricted stock units ("***Restricted Stock Units***" or "***RSUs***") under the Company' s 2011 Incentive Award Plan, as amended from time to time (the "***Plan***"). Each vested Restricted Stock Unit represents the right to receive one share of Common Stock ("***Share***") to purchase the number of Shares indicated in the Grant Notice. Capitalized terms not specifically defined herein shall have the meanings specified in the Plan and Grant Notice.

ARTICLE I.

GENERAL

1.1 Incorporation of Terms of Plan. The RSUs are subject to the terms and conditions of the Plan, which are incorporated herein by reference. In the event of any inconsistency between the Plan and this Agreement, the terms of the Plan shall control.

ARTICLE II.

GRANT OF RESTRICTED STOCK UNITS

2.1 Grant of RSUs. Pursuant to the Grant Notice and upon the terms and conditions set forth in the Plan and this Agreement, effective as of the Grant Date set forth in the Grant Notice, the Company hereby grants to the Participant an award of RSUs under the Plan in consideration of the Participant' s past and/or continued employment with or service to the Company or any Affiliates and for other good and valuable consideration.

2.2 Unsecured Obligation to RSUs. Unless and until the RSUs have vested in the manner set forth in Article 2 hereof, the Participant will have no right to receive Common Stock under any such RSUs. Prior to actual payment of any vested RSUs, such RSUs will represent an unsecured obligation of the Company, payable (if at all) only from the general assets of the Company.

2.3 Vesting Schedule. Subject to Section 2.5 hereof, the RSUs shall vest and become nonforfeitable with respect to the applicable portion thereof according to the vesting schedule set forth in the Grant Notice (rounding down to the nearest whole Share).

2.4 Consideration to the Company. In consideration of the grant of the award of RSUs pursuant hereto, the Participant agrees to render faithful and efficient services to the Company or any Affiliate.

2.5 Forfeiture, Termination and Cancellation upon Termination of Service. Notwithstanding any contrary provision of this Agreement, upon the Participant' s Termination of Service for any or no reason, all Restricted Stock Units which have not vested prior to or in connection with such Termination of Service (after taking into consideration any accelerated vesting which may occur in connection with such Termination of Service (if any)) shall thereupon automatically be forfeited, terminated and cancelled as of the applicable termination date without payment of any consideration by

the Company, and the Participant, or the Participant' s beneficiary or personal representative, as the case may be, shall have no further rights hereunder. No portion of the RSUs which has not become vested as of the date on which the Participant incurs a Termination of Service shall thereafter become vested.

2.6 Issuance of Common Stock upon Vesting.

(a) As soon as administratively practicable following the vesting of any Restricted Stock Units pursuant to Section 2.3 hereof, but in no event later than thirty (30) days after such vesting date (for the avoidance of doubt, this deadline is intended to comply with the "short term deferral" exemption from Section 409A of the Code), the Company shall deliver to the Participant (or any transferee permitted under Section 3.2 hereof) a number of Shares (either by delivering one or more certificates for such Shares or by entering such Shares in book entry form, as determined by the Company in its sole discretion) equal to the number of RSUs subject to this Award that vest on the applicable vesting date, unless such RSUs terminate prior to the given vesting date pursuant to Section 2.5 hereof. Notwithstanding the foregoing, in the event Shares cannot be issued pursuant to Section 11.4 of the Plan, the Shares shall be issued pursuant to the preceding sentence as soon as administratively practicable after the Administrator determines that Shares can again be issued in accordance with such Section.

(b) As set forth in Section 11.2 of the Plan, the Company shall have the authority and the right to deduct or withhold, or to require the Participant to remit to the Company, an amount sufficient to satisfy all applicable federal, state and local taxes required by law to be withheld with respect to any taxable event arising in connection with the Restricted Stock Units. The Company shall not be obligated to deliver any new certificate representing Shares to the Participant or the Participant' s legal representative or enter such Shares in book entry form unless and until the Participant or the Participant' s legal representative shall have paid or otherwise satisfied in full the amount of all federal, state and local taxes applicable to the taxable income of the Participant resulting from the grant or vesting of the Restricted Stock Units or the issuance of Shares.

2.7 Conditions to Delivery of Shares. The Shares deliverable hereunder may be either previously authorized but unissued Shares, treasury Shares or issued Shares which have then been reacquired by the Company. Such Shares shall be fully paid and nonassessable. The Company shall not be required to issue or deliver any certificates or make any book entries evidencing Shares deliverable hereunder prior to fulfillment of the conditions set forth in Section 11.4 of the Plan.

2.8 Rights as Stockholder. The holder of the RSUs shall not be, nor have any of the rights or privileges of, a stockholder of the Company, including, without limitation, voting rights and rights to dividends, in respect of the RSUs and any Shares underlying the RSUs and deliverable hereunder unless and until such Shares shall have been issued by the Company and held of record by such holder (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company). No adjustment shall be made for a dividend or other right for which the record date is prior to the date the Shares are issued, except as provided in Section 14.2 of the Plan.

ARTICLE III.

OTHER PROVISIONS

3.1 Administration. The Administrator shall have the power to interpret the Plan and this Agreement and to adopt such rules for the administration, interpretation and application of the Plan as are consistent therewith and to interpret, amend or revoke any such rules. All actions taken and all interpretations and determinations made by the Administrator in good faith shall be final and binding

upon the Participant, the Company and all other interested persons. No member of the Administrator or the Board shall be personally liable for any action, determination or interpretation made in good faith with respect to the Plan, this Agreement or the RSUs.

3.2 Grant is Not Transferable. During the lifetime of the Participant, the RSUs may not be sold, pledged, assigned or transferred in any manner other than by will or the laws of descent and distribution or, subject to the consent of the Administrator, pursuant to a DRO. Neither the RSUs nor any interest or right therein shall be liable for the debts, contracts or engagements of the Participant or his or her successors in interest or shall be subject to disposition by transfer, alienation, anticipation, pledge, encumbrance, assignment or any other means whether such disposition be voluntary or involuntary or by operation of law by judgment, levy, attachment, garnishment or any other

legal or equitable proceedings (including bankruptcy), and any attempted disposition thereof shall be null and void and of no effect, except to the extent that such disposition is permitted by the preceding sentence.

3.3 Tax Consultation. The Participant understands that the Participant may suffer adverse tax consequences in connection with the RSUs granted pursuant to this Agreement (and the Shares issuable with respect thereto). The Participant represents that the Participant has consulted with any tax consultants the Participant deems advisable in connection with the RSUs and the issuance of Shares with respect thereto and that the Participant is not relying on the Company for any tax advice.

3.4 Adjustments. The Participant acknowledges that the RSUs are subject to modification and termination in certain events as provided in this Agreement and Article 14 of the Plan.

3.5 Notices. Any notice to be given under the terms of this Agreement to the Company shall be addressed to the Company in care of the Secretary of the Company at the Company' s principal office, and any notice to be given to the Participant shall be addressed to the Participant at the Participant' s last address reflected on the Company' s records. Any notice shall be deemed duly given when sent via email or when sent by reputable overnight courier or by certified mail (return receipt requested) through the United States Postal Service.

3.6 Participant' s Representations. If the Shares issuable hereunder have not been registered under the Securities Act or any applicable state laws on an effective registration statement at the time of such issuance, the Participant shall, if required by the Company, concurrently with such issuance, make such written representations as are deemed necessary or appropriate by the Company and/or its counsel.

3.7 Titles. Titles are provided herein for convenience only and are not to serve as a basis for interpretation or construction of this Agreement.

3.8 Governing Law. The laws of the State of Delaware shall govern the interpretation, validity, administration, enforcement and performance of the terms of this Agreement regardless of the law that might be applied under principles of conflicts of laws.

3.9 Conformity to Securities Laws. The Participant acknowledges that the Plan and this Agreement are intended to conform to the extent necessary with all provisions of the Securities Act and the Exchange Act, and any and all regulations and rules promulgated by the Securities and Exchange Commission thereunder, as well as all applicable state securities laws and regulations. Notwithstanding anything herein to the contrary, the Plan shall be administered, and the RSUs are granted, only in such a manner as to conform to such laws, rules and regulations. To the extent permitted by applicable law, the Plan and this Agreement shall be deemed amended to the extent necessary to conform to such laws, rules and regulations.

3.10 Amendment, Suspension and Termination. To the extent permitted by the Plan, this Agreement may be wholly or partially amended or otherwise modified, suspended or terminated at any time or from time to time by the Administrator or the Board; *provided, however,* that, except as may otherwise be provided by the Plan, no amendment, modification, suspension or termination of this Agreement shall adversely affect the RSUs in any material way without the prior written consent of the Participant.

3.11 Successors and Assigns. The Company may assign any of its rights under this Agreement to single or multiple assignees, and this Agreement shall inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer herein set forth in Section 3.2 hereof, this Agreement shall be binding upon the Participant and his or her heirs, executors, administrators, successors and assigns.

3.12 Limitations Applicable to Section 16 Persons. Notwithstanding any other provision of the Plan or this Agreement, if the Participant is subject to Section 16 of the Exchange Act, then the Plan, the RSUs and this Agreement shall be subject to any additional limitations set forth in any applicable exemptive rule under Section 16 of the Exchange Act (including any amendment to Rule 16b-3 of the

Exchange Act) that are requirements for the application of such exemptive rule. To the extent permitted by applicable law, this Agreement shall be deemed amended to the extent necessary to conform to such applicable exemptive rule.

3.13 Entire Agreement. The Plan, the Grant Notice and this Agreement (including all Exhibits thereto, if any) constitute the entire agreement of the parties and supersede in their entirety all prior undertakings and agreements of the Company and the Participant with respect to the subject matter hereof.

3.14 Section 409A. Notwithstanding any other provision of the Plan, this Agreement or the Grant Notice, the Plan, this Agreement and the Grant Notice shall be interpreted in accordance with the requirements of Section 409A of the Code. The Administrator may, in its discretion, adopt such amendments to the Plan, this Agreement or the Grant Notice or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, as the Administrator determines are necessary or appropriate to comply with the requirements of Section 409A of the Code.

3.15 Limitation on Participant' s Rights. Participation in the Plan confers no rights or interests other than as herein provided. This Agreement creates only a contractual obligation on the part of the Company as to amounts payable and shall not be construed as creating a trust. The Plan, in and of itself, has no assets. Participant shall have only the rights of a general unsecured creditor of the Company and its Affiliates with respect to amounts credited and benefits payable, if any, with respect to the RSUs, and rights no greater than the right to receive the Common Stock as a general unsecured creditor with respect to RSUs, as and when payable hereunder.

3.16 Not a Contract of Service Relationship. Nothing in this Agreement or in the Plan shall confer upon the Participant any right to continue to serve as an Employee or other service provider of the Company or any of its Affiliates or shall interfere with or restrict in any way the rights of the Company and its Affiliates, which rights are hereby expressly reserved, to discharge or terminate the services of the Participant at any time for any reason whatsoever, with or without Cause, except to the extent expressly provided otherwise in a written agreement between the Company or an Affiliate and the Participant.

Exhibit 10.15a

INTERMOLECULAR, INC.

CHANGE IN CONTROL AND SEVERANCE AGREEMENT

This Change in Control and Severance Agreement (the "Agreement") is made and entered into by and between [ ] ("Executive") and Intermolecular, Inc. (the "Company"), effective as of the date of the closing of the Company' s initial public offering of shares of its common stock (the "Effective Date").

R E C I T A L S

A. It is expected that the Company from time to time will consider the possibility of an acquisition by another company or other change in control. The Compensation Committee (the "Compensation Committee") of the Board of Directors of the Company (the "Board") recognizes that the possibility of an involuntary termination (either outside of or in connection with such an acquisition or other change in control) can be a distraction to Executive and can cause Executive to consider alternative employment opportunities.

B. The Compensation Committee believes that it is in the best interests of the Company and its stockholders to (1) assure that the Company will have the continued dedication and objectivity of Executive, notwithstanding the possibility, threat or occurrence of such an event and (2) provide Executive with an incentive to continue Executive' s employment with the Company and to motivate Executive to maximize the value of the Company upon a Change in Control (as defined below) for the benefit of its stockholders.

C. The Compensation Committee also believes that it is in the best interests of the Company and its stockholders to provide Executive with severance benefits upon certain terminations of Executive' s service to the Company that enhance Executive' s financial security and provide incentive and encouragement to Executive to remain with the Company notwithstanding the possibility of such an event.

D. Certain capitalized terms used in this Agreement are defined in Section 7 below.

The parties hereto agree as follows:

1. Term of Agreement. This Agreement shall become effective as of the Effective Date and shall terminate upon the date that all obligations of the parties hereto with respect to this Agreement have been satisfied.

2. At-Will Employment. The Company and Executive acknowledge that Executive' s employment is and shall continue to be "at-will," as defined under applicable law. If Executive' s employment terminates for any reason, Executive shall not be entitled to any payments, benefits, damages, awards or compensation other than as provided by this Agreement.

3. Termination without Cause or for Good Reason Outside of a Change in Control Period. If, on or after the first anniversary of Executive' s commencement of employment with the Company, (i) Executive' s employment with the Company is terminated after the Effective Date by

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the Company other than for Cause or by Executive for Good Reason and (ii) the date of Executive' s termination of employment (the "Termination Date") occurs outside of a Change in Control Period, then, subject to Executive executing a general release of all claims against the Company and its affiliates in a form acceptable to the Company (a "Release of Claims") and such Release of Claims becoming effective and irrevocable within sixty (60) days following the Termination Date, then in addition to any accrued but unpaid salary, bonus, vacation and expense reimbursement payable in cash in accordance with applicable law ("Accrued Obligations"), the Company shall provide Executive with the following:

(a) Severance. Executive shall be entitled to receive an amount equal to six (6) months of Executive' s base salary at the rate in effect immediately prior to Executive' s termination of employment, which shall be paid in a cash lump sum on the payroll date that immediately follows the date the Release of Claims is first effective and irrevocable.

(b) Continued Healthcare. If Executive elects to receive continued healthcare coverage pursuant to the provisions of the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("COBRA"), the Company shall directly pay, or reimburse Executive for (on an after-tax basis), the applicable COBRA premiums for Executive and Executive' s covered dependents during the period commencing on the Termination Date and ending on the earlier to occur of (i) the six (6)-month anniversary of the Termination Date and (ii) the date on which Executive and Executive' s covered dependents, if any, become eligible for healthcare coverage under another employer' s group health plan(s) (of which eligibility Executive hereby agrees to give prompt notice to the Company). After the Company ceases to pay or reimburse COBRA premiums pursuant to the preceding sentence, Executive may, if eligible, elect to continue healthcare coverage at Executive' s expense in accordance with the provisions of COBRA.

4. Certain Terminations During a Change in Control Period. If, on or after the first anniversary of Executive' s commencement of employment with the Company, (i) Executive' s employment with the Company is terminated by the Company for other than Cause or by Executive for Good Reason and (ii) the Termination Date occurs during a Change in Control Period, then, subject to Executive executing a Release of Claims and such Release of Claims becoming effective and irrevocable within sixty (60) days following the Termination Date, in addition to the Accrued Obligations, the Company shall provide Executive with the following:

(a) Severance. Executive shall be entitled to receive an amount equal to the sum of (i) Executive' s annual base salary at the rate in effect immediately prior to Executive' s termination of employment and (ii) Executive' s target annual bonus for the year in which the Termination Date occurs, which shall be paid in a cash lump sum on the payroll date that immediately follows the date the Release of Claims is first effective and irrevocable.

(b) Continued Healthcare. If Executive elects to receive continued healthcare coverage pursuant to the provisions of COBRA, the Company shall directly pay, or reimburse Executive for (on an after-tax basis), the applicable COBRA premiums for Executive and Executive' s covered dependents during the period commencing on the Termination Date and ending on the earlier to occur of (i) the twelve (12)-month anniversary of the Termination Date and (ii) the date on which Executive and Executive' s covered dependents, if any, become eligible for healthcare

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coverage under another employer' s group health plan(s) (of which eligibility Executive hereby agrees to give prompt notice to the Company). After the Company ceases to pay or reimburse COBRA premiums pursuant to the preceding sentence, Executive may, if eligible, elect to continue healthcare coverage at Executive' s expense in accordance with the provisions of COBRA.

(c) Equity Awards. Each outstanding equity award, including, without limitation, each stock option and restricted stock award, then-held by Executive shall automatically become vested and, if applicable, exercisable and any forfeiture restrictions or rights of repurchase thereon shall immediately lapse, in each case, with respect to all of the shares of Company common stock subject to such equity award.

5. Other Termination. If Executive' s employment with the Company is terminated after the Effective Date by the Company for Cause or by Executive other than for Good Reason at any time (outside of or within a Change in Control Period) or if Executive fails to execute a Release of Claims or if such Release of Claims fails to become effective and irrevocable within sixty (60) days following the Termination Date, then Executive shall be entitled to receive the Accrued Obligations and to elect any continued healthcare coverage as may be required under COBRA or similar state law.

6. Limitation on Payments.

(a) Parachute Payments. Any provision of this Agreement to the contrary notwithstanding, if any payment or benefit received or to be received by Executive from the Company pursuant to this Agreement or otherwise (all such payments and benefits, the

"Payments") would be subject (in whole or in part) to the excise tax imposed by Section 4999 of the Internal Revenue Code of 1986, as amended (the "Code" and such excise tax, the "Excise Tax"), then, after taking into account any reduction in the Payments provided by reason of Section 280G of the Code in another plan, arrangement or agreement, the Payments will be equal to the Reduced Amount (as defined below). The "Reduced Amount" will be the largest portion of the Payments that would result in no portion of the Payments (after reduction) being subject to the Excise Tax but only if (i) the Reduced Amount, after taking into account all applicable federal, state and local employment taxes and income taxes (all computed at the highest applicable marginal rate, net of the maximum reduction in federal income taxes which could be obtained from a deduction of such state and local taxes) on the Reduced Amount (and after taking into account the phase out itemized deductions and personal exemptions attributable to such Payments) is greater than or equal to (ii) the net amount of the Payments without reduction (but after taking into account all applicable federal, state and local employment taxes, income taxes and the Excise Tax (all computed at the highest applicable marginal rate, net of the maximum reduction in federal income taxes which could be obtained from a deduction of such state and local taxes), and after taking into account the phase out itemized deductions and personal exemptions attributable to such Payments. If a reduction in the Payments is to be made so that the Payments equals the Reduced Amount, Executive will have no rights to any additional payments and/or benefits constituting the Payments, and the reduction in payments and/or benefits will occur in the following order: (1) reduction of cash payments; (2) cancellation of accelerated vesting of equity awards other than stock options; (3) cancellation of accelerated vesting of stock options; and (4) reduction of other benefits paid to Executive, in each case beginning with payments that would be made last in time.

(b) Accounting Firm. The accounting firm engaged by the Company for general tax purposes as of the day prior to the Change in Control will perform the calculations set forth in Section 6(a). If the firm so engaged by the Company is serving as accountant or auditor for the acquiring company, the Company will appoint a nationally recognized accounting firm to make the determinations required hereunder. The Company will bear all expenses with respect to the determinations by such firm required to be made hereunder. The accounting firm engaged to make the determinations hereunder will provide its calculations, together with detailed supporting documentation, to the Company within fifteen (15) days before the consummation of a Change in Control (if requested at that time by the Company) or such other time as requested by the Company. If the accounting firm determines that no Excise Tax is payable with respect to a Payment, either before or after the application of the Reduced Amount, it will furnish the Company with documentation reasonably acceptable to the Company that no Excise Tax will be imposed with respect to such Payment. Any good faith determinations of the accounting firm made hereunder will be final, binding and conclusive upon the Company and Executive.

7. Definition of Terms. The following terms referred to in this Agreement shall have the following meanings:

(a) Cause. "Cause" shall mean (i) theft, dishonesty or falsification of any employment or Company records; (ii) malicious or reckless disclosure of the Company' s confidential or proprietary information; (iii) commission of any immoral or illegal act or any gross or willful misconduct, where the Board reasonably determines that such act or misconduct has (A) seriously undermined the ability of the Company' s Board or management to entrust Executive with important matters or otherwise work effectively with Executive, (B) contributed to the Company' s loss of significant revenues or business opportunities, or (C) significantly and detrimentally effected the business or reputation of the Company or any of its subsidiaries; and/or (iv) the failure or refusal by Executive to follow the reasonable and lawful directives of the Board, provided such failure or refusal continues after Executive' s receipt of reasonable notice in writing of such failure or refusal and an opportunity to correct the problem. Notwithstanding the foregoing, "Cause" shall not exist where any of the foregoing are due to Executive' s physical or mental disability.

(b) Change in Control. "Change in Control" shall have the meaning set forth in Section 2.8 of the Company' s 2011 Incentive Award Plan, *provided*, that in no event shall a Change in Control be deemed to have occurred unless such Change in Control constitutes a "change in control event" as defined in Treasury Regulation Section 1.409A-3(i)(5).

(c) Change in Control Period. "Change in Control Period" means that period of time commencing on the date that is one (1) month prior to the date of the consummation of a Change in Control and ending on the first (1st) anniversary of such Change in Control.

(d) Good Reason. "Good Reason" means Executive' s voluntary resignation following the occurrence of any of the following without Executive' s consent (i) the delegation to Executive of any duties or the reduction of Executive' s duties, either of which materially reduces the nature, responsibility, or character of Executive' s position, when taken as a whole, to a level below that generally associated with a similar position in a company of a similar size, in the same industry and with the same general characteristics as the Company at the time; (ii) a material reduction of

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Executive' s salary (other than in connection with a similar reduction in the salaries of all executive level employees) from that immediately prior to such reduction; (iii) a relocation of Executive' s principal office to a place that increases Executive' s one-way commute by more than thirty-five (35) miles as compared to Executive' s one-way commute as of immediately prior to such relocation; or (iv) the material breach by the Company of this Agreement. Notwithstanding the foregoing, in no event shall Executive have Good Reason to terminate Executive' s employment unless Executive provides to the Company written notice of the condition giving rise to Good Reason within sixty (60) days after the initial occurrence of such condition, such condition continues beyond thirty (30) days after the Company receives such notice (the "Cure Period") and Executive' s resignation for Good Reason is effective within thirty (30) days after the end of the Cure Period.

8. Successors.

(a) Company' s Successors. Any successor to the Company (whether direct or indirect and whether by purchase, merger, consolidation, liquidation or otherwise) to all or substantially all of the Company' s business and/or assets shall assume the obligations under this Agreement and agree expressly to perform the obligations under this Agreement in the same manner and to the same extent as the Company would be required to perform such obligations in the absence of a succession. For all purposes under this Agreement, the term "Company" shall include any successor to the Company' s business and/or assets.

(b) Executive' s Successors. This Agreement is personal to Executive and without the prior written consent of the Company shall not be assignable by Executive otherwise than by will or the laws of descent and distribution. The terms of this Agreement and all rights of Executive hereunder shall inure to the benefit of, and be enforceable by, Executive' s personal or legal representatives, executors, administrators, successors, heirs, distributees, devisees and legatees.

9. Notices. Any notice to be given under the terms of this Agreement shall be addressed to the Company in care of the Secretary of the Company at the Company' s principal office, and any notice to be given to Executive shall be addressed to Executive at Executive' s last address reflected on the Company' s records. Any notice shall be deemed duly given when sent via email or when sent by reputable overnight courier or by certified mail (return receipt requested) through the United States Postal Service.

10. Restrictive Covenants.

(a) Proprietary Information Agreement. Executive shall remain bound by Executive' s obligations under the Company' s standard Employee Confidentiality and Inventions Assignment Agreement (the "Proprietary Information Agreement").

(b) Proprietary Information. Without limiting the Proprietary Information Agreement, except as Executive reasonably and in good faith determines to be required in the faithful performance of Executive' s duties to the Company, Executive shall at all times before and after Executive' s termination of employment maintain in confidence and shall not directly or indirectly, use, disseminate, disclose or publish, for Executive' s benefit or the benefit of any other person or entity, any confidential or proprietary information or trade secrets of or relating to the

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Company, including, without limitation, information with respect to the Company' s operations, processes, protocols, products, inventions, business practices, finances, principals, vendors, suppliers, customers, potential customers, marketing methods, costs, prices, contractual relationships, regulatory status, compensation paid to employees or other terms of employment ("Proprietary Information"), or deliver to any person or entity, any document, record, notebook, computer program or similar repository of or containing any such Proprietary Information.

Executive' s obligation to maintain and not use, disseminate, disclose or publish, or use for Executive' s benefit or the benefit of any other person or entity, any Proprietary Information after the date Executive terminates employment will continue so long as such Proprietary Information is not, or has not by legitimate means become, generally known and in the public domain (other than by means of Executive' s direct or indirect disclosure of such Proprietary Information) and continues to be maintained as Proprietary Information by the Company. The parties hereby stipulate and agree that as between them, the Proprietary Information identified herein is important, material and affects the successful conduct of the businesses of the Company (and any successor or assignee of the Company).

(c) Nonsolicitation. Without limiting the Proprietary Information Agreement, Executive hereby agrees that Executive shall not while employed or otherwise providing services to the Company and with respect to subsection (ii) below, within the one (1) year period immediately following the termination of Executive' s employment with or other service to the Company, directly or indirectly, either for Executive or on behalf of any other person or entity, (i) recruit or otherwise solicit or induce any employee, customer or supplier of the Company to terminate its employment or arrangement with the Company, or otherwise change its relationship with the Company, or (ii) hire, or cause to be hired, any person who was employed by the Company at any time during the twelve (12)-month period immediately prior to the date Executive terminates employment with or other service to the Company, or who thereafter becomes employed by the Company.

(d) Return of Materials. Upon termination of Executive' s employment with the Company for any reason, Executive will promptly deliver to the Company (i) all correspondence, drawings, manuals, letters, notes, notebooks, reports, programs, plans, proposals, financial documents, or any other documents that are Proprietary Information, including all physical and digital copies thereof, and (ii) all other Company property (including, without limitation, any personal computer or wireless device and related accessories, keys, credit cards and other similar items) which is in Executive' s possession, custody or control.

(e) Exception to Restrictive Covenants. Notwithstanding anything in this Section 10 to the contrary, Executive may respond to a lawful and valid subpoena or other legal process but shall give the Company the earliest possible notice thereof, and shall, as much in advance of the return date as possible, make available to the Company and its counsel the documents and other information sought, and shall assist such counsel in resisting or otherwise responding to such process.

(f) Nondisparagement. Executive agrees not to disparage the Company, any of its products or practices, or any of its directors, officers, agents, representatives, partners, members, equity holders or affiliates, either orally or in writing, at any time, *provided*, that Executive may

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confer in confidence with Executive' s legal representatives and make truthful statements as required by law.

(g) Subsequent Employment. Prior to accepting other employment or any other service relationship prior to the first (1st) anniversary of Executive' s termination of employment, Executive shall provide a copy of this Section 10 to any recruiter who assists Executive in obtaining other employment or any other service relationship and to any employer or other person or entity with which Executive discusses potential employment or any other service relationship.

(h) Enforceability. In the event the terms of this Section 10 shall be determined by any court of competent jurisdiction to be unenforceable by reason of its extending for too great a period of time or over too great a geographical area or by reason of its being too extensive in any other respect, it will be interpreted to extend only over the maximum period of time for which it may be enforceable, over the maximum geographical area as to which it may be enforceable, or to the maximum extent in all other respects as to which it may be enforceable, all as determined by such court in such action. Any breach or violation by Executive of the provisions of this Section 10 shall toll the running of any time periods set forth in this Section 10 for the duration of any such breach or violation.

(i) Affiliates. As used in this Section 10, the term "Company" shall include the Company and any parent, affiliated, related and/or direct or indirect subsidiary entity thereof.

11. Dispute Resolution. To ensure the timely and economical resolution of disputes that arise in connection with this Agreement, Executive and the Company agree that any and all controversies, claims and disputes arising out of or relating to this Agreement,

including without limitation any alleged violation of its terms, shall be resolved by final and binding arbitration before a single neutral arbitrator in Santa Clara County, California, in accordance with the Employment Dispute Resolution Rules of the American Arbitration Association ("AAA"). The arbitration shall be commenced by filing a demand for arbitration with the AAA within fourteen (14) days after the filing party has given notice of such breach to the other party. The arbitrator shall award the prevailing party attorneys' fees and expert fees, if any. Notwithstanding the foregoing, it is acknowledged that it will be impossible to measure in money the damages that would be suffered if the parties fail to comply with any of the obligations imposed on them under Section 10 hereof, and that in the event of any such failure, an aggrieved person will be irreparably damaged and will not have an adequate remedy at law. Any such person shall, therefore, be entitled to injunctive relief, including specific performance, to enforce such obligations, and if any action shall be brought in equity to enforce any of the provisions of Section 10 of this Agreement, none of the parties hereto shall raise the defense that there is an adequate remedy at law.

12. Miscellaneous Provisions.

(a) Section 409A.

(i) General. To the extent applicable, this Agreement shall be interpreted and applied consistent and in accordance with Section 409A of the Internal Revenue Code of 1986, as amended (the "Code"), and Department of Treasury regulations and other interpretive guidance

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issued thereunder. If, however, the Company determines that any compensation or benefits payable under this Agreement may be or become subject to Section 409A of the Code, the Company may in its sole discretion adopt such amendments to this Agreement or to adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take such other actions, as the Company determines necessary or appropriate to (i) exempt the compensation and benefits payable under this Agreement from Section 409A of the Code and/or preserve the intended tax treatment of such compensation and benefits, or (ii) comply with the requirements of Section 409A of the Code; *provided, however*, that this Section 12(a)(i) shall not create any obligation on the part of the Company to adopt any such amendment, policy or procedure or take any such other action.

(ii) Separation from Service. Notwithstanding any provision to the contrary in this Agreement, no amount deemed deferred compensation subject to Section 409A of the Code shall be payable pursuant to Sections 3 or 4 of this Agreement unless Executive' s termination of employment constitutes a "separation from service" with the Company within the meaning of Section 409A of the Code and the Department of Treasury regulations and other guidance promulgated thereunder (a "Separation from Service") and, except as provided under Section 12(a)(iii) of this Agreement, any such amount shall be paid, or in the case of installments, payments shall commence, on the sixtieth (60^{th}) day following Executive' s Separation from Service.

(iii) Specified Employee. Notwithstanding any provision to the contrary in this Agreement, if Executive is deemed at the time of Executive' s Separation from Service to be a "specified employee" for purposes of Section 409A(a)(2)(B)(i) of the Code, to the extent delayed commencement of any portion of the benefits to which Executive is entitled under this Agreement is required in order to avoid a prohibited distribution under Section 409A(a)(2)(B)(i) of the Code, such portion of Executive' s benefits shall not be provided to Executive until the earlier of (a) the expiration of the six (6)-month period measured from the date of Executive' s Separation from Service or (b) the date of Executive' s death. Upon the first business day following the expiration of the applicable Code Section 409A(a)(2)(B)(i) period, all payments deferred pursuant to this Section 12(a)(iii) shall be paid in a lump sum to Executive, and any remaining payments due under this Agreement shall be paid as otherwise provided herein.

(iv) Expense Reimbursements. To the extent that any reimbursements payable pursuant to this Agreement are subject to the provisions of Section 409A of the Code, any such reimbursements payable to Executive pursuant to this Agreement shall be paid to Executive no later than December 31 of the year following the year in which the expense was incurred, the amount of expenses reimbursed in one year shall not affect the amount eligible for reimbursement in any subsequent year, and Executive' s right to reimbursement under this Agreement will not be subject to liquidation or exchange for another benefit.

(v) Installments. Any right to a series of installment payments pursuant to this Agreement is to be treated as a right to a series of separate payments. To the extent permitted under Section 409A of the Code, any separate payment or benefit under this Agreement or otherwise shall not be deemed "nonqualified deferred compensation" subject to Section 409A of the Code and Sections 3 or 4 of this Agreement to the extent provided in the exceptions in Treasury Regulation

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Section 1.409A-1(b)(4), Section 1.409A-1(b)(9) or any other applicable exception or provision of Section 409A of the Code.

(b) Waiver. No provision of this Agreement shall be modified, waived or discharged unless the modification, waiver or discharge is agreed to in writing and signed by Executive and by an authorized officer of the Company (other than Executive). No waiver by either party of any breach of, or of compliance with, any condition or provision of this Agreement by the other party shall be considered a waiver of any other condition or provision or of the same condition or provision at another time.

(c) Whole Agreement. This Agreement and the Proprietary Information Agreement represent the entire understanding of the parties hereto with respect to the subject matter hereof and supersede all prior arrangements and understandings regarding same including, without limitation, any severance provisions of any offer letter agreement or employment agreement between Executive and the Company.

(d) Choice of Law. The validity, interpretation, construction and performance of this Agreement shall be governed by the laws of the State of California.

(e) Severability. The invalidity or unenforceability of any provision or provisions of this Agreement shall not affect the validity or enforceability of any other provision hereof, which shall remain in full force and effect.

(f) Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together will constitute one and the same instrument.

(*Signature page follows*)

IN WITNESS WHEREOF, each of the parties has executed this Agreement, in the case of the Company by its duly authorized officer, as of the day and year set forth below.

INTERMOLECULAR, INC.

By: _____

Title: _____

Date: _____

EXECUTIVE

_____

[ ]

Date: _____

Exhibit 10.15b

INTERMOLECULAR, INC.

CHANGE IN CONTROL AND SEVERANCE AGREEMENT

This Change in Control and Severance Agreement (the "Agreement") is made and entered into by and between David Lazovsky ("Executive") and Intermolecular, Inc. (the "Company"), effective as of the date of the closing of the Company' s initial public offering of shares of its common stock (the "Effective Date").

R E C I T A L S

A. It is expected that the Company from time to time will consider the possibility of an acquisition by another company or other change in control. The Compensation Committee (the "Compensation Committee") of the Board of Directors of the Company (the "Board") recognizes that the possibility of an involuntary termination (either outside of or in connection with such an acquisition or other change in control) can be a distraction to Executive and can cause Executive to consider alternative employment opportunities.

B. The Compensation Committee believes that it is in the best interests of the Company and its stockholders to (1) assure that the Company will have the continued dedication and objectivity of Executive, notwithstanding the possibility, threat or occurrence of such an event and (2) provide Executive with an incentive to continue Executive' s employment with the Company and to motivate Executive to maximize the value of the Company upon a Change in Control (as defined below) for the benefit of its stockholders.

C. The Compensation Committee also believes that it is in the best interests of the Company and its stockholders to provide Executive with severance benefits upon certain terminations of Executive' s service to the Company that enhance Executive' s financial security and provide incentive and encouragement to Executive to remain with the Company notwithstanding the possibility of such an event.

D. Certain capitalized terms used in this Agreement are defined in Section 7 below.

The parties hereto agree as follows:

1. Term of Agreement. This Agreement shall become effective as of the Effective Date and shall terminate upon the date that all obligations of the parties hereto with respect to this Agreement have been satisfied.

2. At-Will Employment. The Company and Executive acknowledge that Executive' s employment is and shall continue to be "at-will," as defined under applicable law. If Executive' s employment terminates for any reason, Executive shall not be entitled to any payments, benefits, damages, awards or compensation other than as provided by this Agreement.

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3. Termination without Cause or for Good Reason Outside of a Change in Control Period. If, on or after the first anniversary of Executive' s commencement of employment with the Company, (i) Executive' s employment with the Company is terminated after the Effective Date by the Company other than for Cause or by Executive for Good Reason and (ii) the date of Executive' s termination of employment (the "Termination Date") occurs outside of a Change in Control Period, then, subject to Executive executing a general release of all claims against the Company and its affiliates in a form acceptable to the Company (a "Release of Claims") and such Release of Claims becoming effective and irrevocable within sixty (60) days following the Termination Date, then in addition to any accrued but unpaid salary, bonus, vacation and expense reimbursement payable in cash in accordance with applicable law ("Accrued Obligations"), the Company shall provide Executive with the following:

(a) Severance. Executive shall be entitled to receive an amount equal to twelve (12) months of Executive' s base salary at the rate in effect immediately prior to Executive' s termination of employment, which shall be paid in a cash lump sum on the payroll date that immediately follows the date the Release of Claims is first effective and irrevocable.

(b) Continued Healthcare. If Executive elects to receive continued healthcare coverage pursuant to the provisions of the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("COBRA"), the Company shall directly pay, or reimburse Executive for (on an after-tax basis), the applicable COBRA premiums for Executive and Executive' s covered dependents during the period commencing on the Termination Date and ending on the earlier to occur of (i) the twelve (12)-month anniversary of the Termination Date and (ii) the date on which Executive and Executive' s covered dependents, if any, become eligible for healthcare coverage under another employer' s group health plan(s) (of which eligibility Executive hereby agrees to give prompt notice to the Company). After the Company ceases to pay or reimburse COBRA premiums pursuant to the preceding sentence, Executive may, if eligible, elect to continue healthcare coverage at Executive' s expense in accordance with the provisions of COBRA.

4. Certain Terminations During a Change in Control Period. If, on or after the first anniversary of Executive' s commencement of employment with the Company, (i) Executive' s employment with the Company is terminated by the Company for other than Cause or by Executive for Good Reason and (ii) the Termination Date occurs during a Change in Control Period, then, subject to Executive executing a Release of Claims and such Release of Claims becoming effective and irrevocable within sixty (60) days following the Termination Date, in addition to the Accrued Obligations, the Company shall provide Executive with the following:

(a) Severance. Executive shall be entitled to receive an amount equal to one-and-one-half (1.5) times the sum of (i) Executive' s annual base salary at the rate in effect immediately prior to Executive' s termination of employment and (ii) Executive' s target annual bonus for the year in which the Termination Date occurs, which shall be paid in a cash lump sum on the payroll date that immediately follows the date the Release of Claims is first effective and irrevocable.

(b) Continued Healthcare. If Executive elects to receive continued healthcare coverage pursuant to the provisions of COBRA, the Company shall directly pay, or reimburse

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Executive for (on an after-tax basis), the applicable COBRA premiums for Executive and Executive' s covered dependents during the period commencing on the Termination Date and ending on the earlier to occur of (i) the eighteen (18)-month anniversary of the Termination Date and (ii) the date on which Executive and Executive' s covered dependents, if any, become eligible for healthcare coverage under another employer' s group health plan(s) (of which eligibility Executive hereby agrees to give prompt notice to the Company). After the Company ceases to pay or reimburse COBRA premiums pursuant to the preceding sentence, Executive may, if eligible, elect to continue healthcare coverage at Executive' s expense in accordance with the provisions of COBRA.

(c) Equity Awards. Each outstanding equity award, including, without limitation, each stock option and restricted stock award, then-held by Executive shall automatically become vested and, if applicable, exercisable and any forfeiture restrictions or rights of repurchase thereon shall immediately lapse, in each case, with respect to all of the shares of Company common stock subject to such equity award.

5. Other Termination. If Executive' s employment with the Company is terminated after the Effective Date by the Company for Cause or by Executive other than for Good Reason at any time (outside of or within a Change in Control Period) or if Executive fails to execute a Release of Claims or if such Release of Claims fails to become effective and irrevocable within sixty (60) days following the Termination Date, then Executive shall be entitled to receive the Accrued Obligations and to elect any continued healthcare coverage as may be required under COBRA or similar state law.

6. Limitation on Payments.

(a) Parachute Payments. Any provision of this Agreement to the contrary notwithstanding, if any payment or benefit received or to be received by Executive from the Company pursuant to this Agreement or otherwise (all such payments and benefits, the

"Payments") would be subject (in whole or in part) to the excise tax imposed by Section 4999 of the Internal Revenue Code of 1986, as amended (the "Code" and such excise tax, the "Excise Tax"), then, after taking into account any reduction in the Payments provided by reason of Section 280G of the Code in another plan, arrangement or agreement, the Payments will be equal to the Reduced Amount (as defined below). The "Reduced Amount" will be the largest portion of the Payments that would result in no portion of the Payments (after reduction) being subject to the Excise Tax but only if (i) the Reduced Amount, after taking into account all applicable federal, state and local employment taxes and income taxes (all computed at the highest applicable marginal rate, net of the maximum reduction in federal income taxes which could be obtained from a deduction of such state and local taxes) on the Reduced Amount (and after taking into account the phase out itemized deductions and personal exemptions attributable to such Payments) is greater than or equal to (ii) the net amount of the Payments without reduction (but after taking into account all applicable federal, state and local employment taxes, income taxes and the Excise Tax (all computed at the highest applicable marginal rate, net of the maximum reduction in federal income taxes which could be obtained from a deduction of such state and local taxes), and after taking into account the phase out itemized deductions and personal exemptions attributable to such Payments. If a reduction in the Payments

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is to be made so that the Payments equals the Reduced Amount, Executive will have no rights to any additional payments and/or benefits constituting the Payments, and the reduction in payments and/or benefits will occur in the following order: (1) reduction of cash payments; (2) cancellation of accelerated vesting of equity awards other than stock options; (3) cancellation of accelerated vesting of stock options; and (4) reduction of other benefits paid to Executive, in each case beginning with payments that would be made last in time.

(b) Accounting Firm. The accounting firm engaged by the Company for general tax purposes as of the day prior to the Change in Control will perform the calculations set forth in Section 6(a). If the firm so engaged by the Company is serving as accountant or auditor for the acquiring company, the Company will appoint a nationally recognized accounting firm to make the determinations required hereunder. The Company will bear all expenses with respect to the determinations by such firm required to be made hereunder. The accounting firm engaged to make the determinations hereunder will provide its calculations, together with detailed supporting documentation, to the Company within fifteen (15) days before the consummation of a Change in Control (if requested at that time by the Company) or such other time as requested by the Company. If the accounting firm determines that no Excise Tax is payable with respect to a Payment, either before or after the application of the Reduced Amount, it will furnish the Company with documentation reasonably acceptable to the Company that no Excise Tax will be imposed with respect to such Payment. Any good faith determinations of the accounting firm made hereunder will be final, binding and conclusive upon the Company and Executive.

7. Definition of Terms. The following terms referred to in this Agreement shall have the following meanings:

(a) Cause. "Cause" shall mean (i) theft, dishonesty or falsification of any employment or Company records; (ii) malicious or reckless disclosure of the Company' s confidential or proprietary information; (iii) commission of any immoral or illegal act or any gross or willful misconduct, where the Board reasonably determines that such act or misconduct has (A) seriously undermined the ability of the Company' s Board or management to entrust Executive with important matters or otherwise work effectively with Executive, (B) contributed to the Company' s loss of significant revenues or business opportunities, or (C) significantly and detrimentally effected the business or reputation of the Company or any of its subsidiaries; and/or (iv) the failure or refusal by Executive to follow the reasonable and lawful directives of the Board, provided such failure or refusal continues after Executive' s receipt of reasonable notice in writing of such failure or refusal and an opportunity to correct the problem. Notwithstanding the foregoing, "Cause" shall not exist where any of the foregoing are due to Executive' s physical or mental disability.

(b) Change in Control. "Change in Control" shall have the meaning set forth in Section 2.8 of the Company' s 2011 Incentive Award Plan, *provided*, that in no event shall a Change in Control be deemed to have occurred unless such Change in Control constitutes a "change in control event" as defined in Treasury Regulation Section 1.409A-3(i)(5).

(c) Change in Control Period. "Change in Control Period" means that period of time commencing on the date that is one (1) month prior to the date of the consummation of a Change in Control and ending on the first (1st) anniversary of such Change in Control.

(d) Good Reason. "Good Reason" means Executive' s voluntary resignation following the occurrence of any of the following without Executive' s consent (i) the delegation to Executive of any duties or the reduction of Executive' s duties, either of which materially reduces the nature, responsibility, or character of Executive' s position, when taken as a whole, to a level below that generally associated with a similar position in a company of a similar size, in the same industry and with the same general characteristics as the Company at the time; (ii) a material reduction of Executive' s salary (other than in connection with a similar reduction in the salaries of all executive level employees) from that immediately prior to such reduction; (iii) a relocation of Executive' s principal office to a place that increases Executive' s one-way commute by more than thirty-five (35) miles as compared to Executive' s one-way commute as of immediately prior to such relocation; or (iv) the material breach by the Company of this Agreement. Notwithstanding the foregoing, in no event shall Executive have Good Reason to terminate Executive' s employment unless Executive provides to the Company written notice of the condition giving rise to Good Reason within sixty (60) days after the initial occurrence of such condition, such condition continues beyond thirty (30) days after the Company receives such notice (the "Cure Period") and Executive' s resignation for Good Reason is effective within thirty (30) days after the end of the Cure Period.

8. Successors.

(a) Company' s Successors. Any successor to the Company (whether direct or indirect and whether by purchase, merger, consolidation, liquidation or otherwise) to all or substantially all of the Company' s business and/or assets shall assume the obligations under this Agreement and agree expressly to perform the obligations under this Agreement in the same manner and to the same extent as the Company would be required to perform such obligations in the absence of a succession. For all purposes under this Agreement, the term "Company" shall include any successor to the Company' s business and/or assets.

(b) Executive' s Successors. This Agreement is personal to Executive and without the prior written consent of the Company shall not be assignable by Executive otherwise than by will or the laws of descent and distribution. The terms of this Agreement and all rights of Executive hereunder shall inure to the benefit of, and be enforceable by, Executive' s personal or legal representatives, executors, administrators, successors, heirs, distributees, devisees and legatees.

9. Notices. Any notice to be given under the terms of this Agreement shall be addressed to the Company in care of the Secretary of the Company at the Company' s principal office, and any notice to be given to Executive shall be addressed to Executive at Executive' s last address reflected on the Company' s records. Any notice shall be deemed duly given when sent via email or when sent by reputable overnight courier or by certified mail (return receipt requested) through the United States Postal Service.

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10. Restrictive Covenants.

(a) Proprietary Information Agreement. Executive shall remain bound by Executive' s obligations under the Company' s standard Employee Confidentiality and Inventions Assignment Agreement (the "Proprietary Information Agreement").

(b) Proprietary Information. Without limiting the Proprietary Information Agreement, except as Executive reasonably and in good faith determines to be required in the faithful performance of Executive' s duties to the Company, Executive shall at all times before and after Executive' s termination of employment maintain in confidence and shall not directly or indirectly, use, disseminate, disclose or publish, for Executive' s benefit or the benefit of any other person or entity, any confidential or proprietary information or trade secrets of or relating to the Company, including, without limitation, information with respect to the Company' s operations, processes, protocols, products, inventions, business practices, finances, principals, vendors, suppliers, customers, potential customers, marketing methods, costs, prices, contractual relationships, regulatory status, compensation paid to employees or other terms of employment ("Proprietary Information"), or deliver to any person or entity, any document, record, notebook, computer program or similar repository of or containing any such Proprietary Information. Executive' s obligation to maintain and not use, disseminate, disclose or publish, or use for Executive' s

benefit or the benefit of any other person or entity, any Proprietary Information after the date Executive terminates employment will continue so long as such Proprietary Information is not, or has not by legitimate means become, generally known and in the public domain (other than by means of Executive' s direct or indirect disclosure of such Proprietary Information) and continues to be maintained as Proprietary Information by the Company. The parties hereby stipulate and agree that as between them, the Proprietary Information identified herein is important, material and affects the successful conduct of the businesses of the Company (and any successor or assignee of the Company).

(c) Nonsolicitation. Without limiting the Proprietary Information Agreement, Executive hereby agrees that Executive shall not while employed or otherwise providing services to the Company and with respect to subsection (ii) below, within the one (1) year period immediately following the termination of Executive' s employment with or other service to the Company, directly or indirectly, either for Executive or on behalf of any other person or entity, (i) recruit or otherwise solicit or induce any employee, customer or supplier of the Company to terminate its employment or arrangement with the Company, or otherwise change its relationship with the Company, or (ii) hire, or cause to be hired, any person who was employed by the Company at any time during the twelve (12)-month period immediately prior to the date Executive terminates employment with or other service to the Company, or who thereafter becomes employed by the Company.

(d) Return of Materials. Upon termination of Executive' s employment with the Company for any reason, Executive will promptly deliver to the Company (i) all correspondence, drawings, manuals, letters, notes, notebooks, reports, programs, plans, proposals, financial documents, or any other documents that are Proprietary Information, including all physical and digital copies thereof, and (ii) all other Company property (including, without limitation, any

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personal computer or wireless device and related accessories, keys, credit cards and other similar items) which is in Executive' s possession, custody or control.

(e) Exception to Restrictive Covenants. Notwithstanding anything in this Section 10 to the contrary, Executive may respond to a lawful and valid subpoena or other legal process but shall give the Company the earliest possible notice thereof, and shall, as much in advance of the return date as possible, make available to the Company and its counsel the documents and other information sought, and shall assist such counsel in resisting or otherwise responding to such process.

(f) Nondisparagement. Executive agrees not to disparage the Company, any of its products or practices, or any of its directors, officers, agents, representatives, partners, members, equity holders or affiliates, either orally or in writing, at any time, *provided*, that Executive may confer in confidence with Executive' s legal representatives and make truthful statements as required by law.

(g) Subsequent Employment. Prior to accepting other employment or any other service relationship prior to the first (1st) anniversary of Executive' s termination of employment, Executive shall provide a copy of this Section 10 to any recruiter who assists Executive in obtaining other employment or any other service relationship and to any employer or other person or entity with which Executive discusses potential employment or any other service relationship.

(h) Enforceability. In the event the terms of this Section 10 shall be determined by any court of competent jurisdiction to be unenforceable by reason of its extending for too great a period of time or over too great a geographical area or by reason of its being too extensive in any other respect, it will be interpreted to extend only over the maximum period of time for which it may be enforceable, over the maximum geographical area as to which it may be enforceable, or to the maximum extent in all other respects as to which it may be enforceable, all as determined by such court in such action. Any breach or violation by Executive of the provisions of this Section 10 shall toll the running of any time periods set forth in this Section 10 for the duration of any such breach or violation.

(i) Affiliates. As used in this Section 10, the term "Company" shall include the Company and any parent, affiliated, related and/or direct or indirect subsidiary entity thereof.

11. Dispute Resolution. To ensure the timely and economical resolution of disputes that arise in connection with this Agreement, Executive and the Company agree that any and all controversies, claims and disputes arising out of or relating to this Agreement, including without limitation any alleged violation of its terms, shall be resolved by final and binding arbitration before a single neutral

arbitrator in Santa Clara County, California, in accordance with the Employment Dispute Resolution Rules of the American Arbitration Association ("AAA"). The arbitration shall be commenced by filing a demand for arbitration with the AAA within fourteen (14) days after the filing party has given notice of such breach to the other party. The arbitrator shall award the prevailing party attorneys' fees and expert fees, if any. Notwithstanding the foregoing, it is acknowledged that it will be impossible to measure in money the damages that would be suffered if

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the parties fail to comply with any of the obligations imposed on them under Section 10 hereof, and that in the event of any such failure, an aggrieved person will be irreparably damaged and will not have an adequate remedy at law. Any such person shall, therefore, be entitled to injunctive relief, including specific performance, to enforce such obligations, and if any action shall be brought in equity to enforce any of the provisions of Section 10 of this Agreement, none of the parties hereto shall raise the defense that there is an adequate remedy at law.

12. Miscellaneous Provisions.

(a) Section 409A.

(i) General. To the extent applicable, this Agreement shall be interpreted and applied consistent and in accordance with Section 409A of the Internal Revenue Code of 1986, as amended (the "Code"), and Department of Treasury regulations and other interpretive guidance issued thereunder. If, however, the Company determines that any compensation or benefits payable under this Agreement may be or become subject to Section 409A of the Code, the Company may in its sole discretion adopt such amendments to this Agreement or to adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take such other actions, as the Company determines necessary or appropriate to (i) exempt the compensation and benefits payable under this Agreement from Section 409A of the Code and/or preserve the intended tax treatment of such compensation and benefits, or (ii) comply with the requirements of Section 409A of the Code; *provided, however*, that this Section 12(a)(i) shall not create any obligation on the part of the Company to adopt any such amendment, policy or procedure or take any such other action.

(ii) Separation from Service. Notwithstanding any provision to the contrary in this Agreement, no amount deemed deferred compensation subject to Section 409A of the Code shall be payable pursuant to Sections 3 or 4 of this Agreement unless Executive' s termination of employment constitutes a "separation from service" with the Company within the meaning of Section 409A of the Code and the Department of Treasury regulations and other guidance promulgated thereunder (a "Separation from Service") and, except as provided under Section 12(a)(iii) of this Agreement, any such amount shall be paid, or in the case of installments, payments shall commence, on the sixtieth (60^{th}) day following Executive' s Separation from Service.

(iii) Specified Employee. Notwithstanding any provision to the contrary in this Agreement, if Executive is deemed at the time of Executive' s Separation from Service to be a "specified employee" for purposes of Section 409A(a)(2)(B)(i) of the Code, to the extent delayed commencement of any portion of the benefits to which Executive is entitled under this Agreement is required in order to avoid a prohibited distribution under Section 409A(a)(2)(B)(i) of the Code, such portion of Executive' s benefits shall not be provided to Executive until the earlier of (a) the expiration of the six (6)-month period measured from the date of Executive' s Separation from Service or (b) the date of Executive' s death. Upon the first business day following the expiration of the applicable Code Section 409A(a)(2)(B)(i) period, all payments deferred pursuant to this Section 12(a)(iii) shall be paid in a lump sum to Executive, and any remaining payments due under this Agreement shall be paid as otherwise provided herein.

(iv) Expense Reimbursements. To the extent that any reimbursements payable pursuant to this Agreement are subject to the provisions of Section 409A of the Code, any such reimbursements payable to Executive pursuant to this Agreement shall be paid to Executive no later than December 31 of the year following the year in which the expense was incurred, the amount of expenses reimbursed in one year shall not affect the amount eligible for reimbursement in any subsequent year, and Executive' s right to reimbursement under this Agreement will not be subject to liquidation or exchange for another benefit.

(v) Installments. Any right to a series of installment payments pursuant to this Agreement is to be treated as a right to a series of separate payments. To the extent permitted under Section 409A of the Code, any separate payment or benefit under this Agreement or otherwise shall not be deemed "nonqualified deferred compensation" subject to Section 409A of the Code and Sections 3 or 4 of this Agreement to the extent provided in the exceptions in Treasury Regulation Section 1.409A-1(b)(4), Section 1.409A-1(b)(9) or any other applicable exception or provision of Section 409A of the Code.

(b) Waiver. No provision of this Agreement shall be modified, waived or discharged unless the modification, waiver or discharge is agreed to in writing and signed by Executive and by an authorized officer of the Company (other than Executive). No waiver by either party of any breach of, or of compliance with, any condition or provision of this Agreement by the other party shall be considered a waiver of any other condition or provision or of the same condition or provision at another time.

(c) Whole Agreement. This Agreement and the Proprietary Information Agreement represent the entire understanding of the parties hereto with respect to the subject matter hereof and supersede all prior arrangements and understandings regarding same including, without limitation, any severance provisions of any offer letter agreement or employment agreement between Executive and the Company.

(d) Choice of Law. The validity, interpretation, construction and performance of this Agreement shall be governed by the laws of the State of California.

(e) Severability. The invalidity or unenforceability of any provision or provisions of this Agreement shall not affect the validity or enforceability of any other provision hereof, which shall remain in full force and effect.

(f) Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together will constitute one and the same instrument.

(*Signature page follows*)

IN WITNESS WHEREOF, each of the parties has executed this Agreement, in the case of the Company by its duly authorized officer, as of the day and year set forth below.

INTERMOLECULAR, INC.

By: _____

Title: _____

Date: _____

EXECUTIVE

_____

David E. Lazovsky

Date: _____

When the transaction referred to in the "Stock Split" section of note 1 of the Notes to Consolidated Financial Statements has been consummated, we will be in a position to render the following consent.

/s/ KPMG LLP

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

The Board of Directors
Intermolecular, Inc.:

We consent to the use of our report dated June 30, 2011, except as related to note 6(a) to the consolidated financial statements which is as of July 28, 2011 and the "Stock Split" section of note 1 which is as of , 2011, included herein and to the reference to our firm under the heading "Experts" in the prospectus. Our report refers to the change in the manner in which the Company accounted for convertible preferred stock.

Mountain View, California
November 4, 2011

QuickLinks