FORM 10-K

Annual report pursuant to section 13 and 15(d)

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MOLECULAR DEVICES CORP
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SECURITIES AND EXCHANGE COMMISSION
Washington D.C. 20549
Form 10-K

[X] ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 [FEE REQUIRED]

For the fiscal year ended December 31, 1998

OR

[ ] TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 [NO FEE REQUIRED].

For the transition period from _____ to _____

Commission file number 0-27316

Molecular Devices Corporation
(Exact name of Registrant as specified in its charter)

Delaware	94-2914362
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)

1311 Orleans Drive
Sunnyvale, California 94089
(Address of principal executive offices, including zip code)
(408) 747-1700
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act: None
Securities registered pursuant to Section 12(g) of the Act:

Title of Each Class
Common Stock, $.001 Par Value

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES [X] NO [ ]

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

The aggregate market value of the voting stock held by non-affiliates of the Registrant as of March 15, 1999, based upon the last sale price reported for such date on the NASDAQ National Market, was $120,706,491*.

The number of outstanding shares of the Registrant's Common Stock as of March 15, 1999 was 9,542,789.

DOCUMENTS INCORPORATED BY REFERENCE

Specified portions of the Proxy Statement for Registrant's 1998 Annual Meeting of Stockholders (the "Proxy Statement") are incorporated by reference into Part III of this Form 10-K Report.

*Excludes approximately 5,518,011 shares of common stock held by Directors, Officers and holders of 5% or more of the Registrant's outstanding Common Stock at March 15, 1999. Exclusion of shares held by any person should not be construed to indicate that such person possesses the power, direct or indirect, to direct or cause the direction of the management or policies of the Registrant, or that such person is controlled by or under common control with the Registrant.

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Molecular Devices Corporation

PART 1

Item 1 - Business

The Company

Except for the historical information contained herein, the following discussion contains forward-looking statements that involve risks and uncertainties. The Company's actual results could differ materially from those discussed here. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in this section under "Business Risks" as well as in the section entitled "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations."

Molecular Devices Corporation ("Molecular Devices" or the "Company") designs, develops, manufactures and markets proprietary, high performance, bioanalytical measurement systems, including software and consumables, designed to accelerate and improve the cost-effectiveness of the drug discovery and development process. The Company integrates its expertise in engineering, molecular and cell biology and chemistry to develop proprietary core technologies which it incorporates into its sophisticated bioanalytical systems, including MAXline Microplate Readers, Cell Analysis Systems and Threshold System.* As part of its strategy to provide complete customer solutions, the Company also offers certain dedicated consumables, as well as software upgrades, and service on a contract basis. The Company's systems have applications in many aspects of life science including the therapeutic development process, from drug discovery and clinical research through manufacturing and quality control.

Industry Background

During the past decade, significant advances in life sciences research and a growing complexity of the biological problems under investigation have highlighted the limitations of traditional approaches to drug discovery and development. These limitations, together with heightened competition in the biotechnology and pharmaceutical industries, have fueled the need for increasingly advanced bioanalytical tools that enhance productivity and reduce product development time and costs. To date, traditional instruments and methods have not fully addressed the complexities of modern drug discovery. However, advances in biology, chemistry and engineering are providing the technologies necessary for the development of very sophisticated bioanalytical tools.

Industry sources estimate that approximately 50,000 research groups are engaged in life sciences research activities worldwide, including academic institutions, government laboratories and private foundations, as well as biotechnology, pharmaceutical and chemical companies. The increased emphasis on reducing costs and optimizing resources in the life sciences is forcing these organizations to be more selective in the allocation of their research budgets by embracing new technologies which accelerate and improve the cost-effectiveness of the drug discovery and development process. As a result, research groups are increasingly relying on a variety of advanced techniques to develop novel therapeutics.

There are two converging trends that are significantly impacting the drug discovery process today. The first is the evolution of genomics and the understanding of the human genome. The worldwide effort to sequence the human genome is beginning to identify previously unknown natural molecules that will likely become targets for new therapeutic products. As this field makes advances in understanding the structure and function of the approximately 100,000 human genes and their function in disease, more and more potential disease targets will be identified. At the same time, the advances in combinatorial chemistry have provided chemists with techniques that allow them to generate significantly more potential drug compounds that can be tested against disease targets. Using combinatorial chemistry techniques, researchers are now able to generate

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* SPECTRAmax(TM), Vmax(R), SOFTmax(R), PathCheck(TM), Threshold(R), Cytosensor(R), Cytosoft(R), Liveware(TM), FLIPR(TM), ROBOmax(TM) and Molecular Devices(R) are trademarks of the Company. This Form 10-K also includes trademarks of companies other than the Company.

libraries of hundreds of thousands of compounds to be screened, whereas previously they could only synthesize dozens in the same period, or use natural molecule sources.

The volume of new potential drug candidate compounds and disease targets, the need to analyze more subtle biological events and the enormous costs involved in the development process have increased the need for a selection process that effectively eliminates unpromising leads at an early stage of research. Traditional bioanalytical instruments and methods were not designed to provide the necessary throughput.

The Molecular Devices Solution

Molecular Devices designs, develops, manufactures and markets proprietary, high-performance, bioanalytical measurement systems, including software and consumables, designed to accelerate and improve the cost-effectiveness of the drug discovery and development process. The Company has integrated its expertise in engineering, biology and chemistry with advanced optical technology that permits high-throughput, multisample detection of biochemical reactions, and object-oriented software applications that rapidly convert large amounts of complex data into meaningful information. The Company has incorporated these technologies into sophisticated yet easy-to-use bioanalytical tools that accurately measure, analyze, quantify and record large volumes of complex biological data. As a result of the Company's fully-integrated systems, researchers are able to address increasingly complex biological problems that could not previously be addressed fully by traditional technologies.

The Company currently offers three product families that address different segments of the drug discovery market. The Company's MAXline family of microplate readers primarily addresses the assay development market and offers the assay development scientist seven differentiated microplate readers that include a wide range of innovative and flexible feature sets. The Company is widely perceived as a leader in microplate reader technology, and believes that it was the first to offer a number of innovative features into the premium end of the microplate reader market. The Company's Cell Analysis products, which include Fluorometric Imaging Plate Reader ("FLIPR") products and the Cytosensor System, address cellular based research in the high-throughput screening and lead optimization market segments. The Company believes that both FLIPR and

Cytosensor provide researchers with valuable information content about the effect of a potential drug compounds on cells. Finally, the Company's Threshold System is aimed at the biopharmaceutical manufacturing and quality control process, and the Company believes that the Threshold System is the only commercially available fully integrated system that rapidly and reproducibly detects potential contaminants with picogram level sensitivity.

Products

The Company's product lines include the MAXline family of microplate readers, Cell Analysis systems which include FLIPR and Cytosensor product lines and Threshold high sensitivity assay system.

MAXline Products

Microplate readers have become one of the most fundamental tools used in life sciences research by addressing the increasing need for the acquisition and processing of large quantities of biochemical and biological data. Microplate readers provide scientists the benefit of high-throughput analysis in a standardized, multi-sample format. Because of the productivity gains using a multi-sample format, microplates have largely replaced test tubes and cuvettes for many life sciences applications.

A microplate is a disposable plastic vessel that is used with a microplate reader to measure light. The basic principles of microplate readers are that light from an appropriate source is directed to a wavelength selection device, such as a monochromator, and its intensity is measured before and after passing through each of the sample wells of a microplate. Application of a mathematical formula to the light intensity measurements of each microplate well provides a measure of the sample present in the well. The measurement, known as optical density, relative fluorescence, or luminescence, is proportional to the concentration of the substance that is being measured. Historically, the standard microplate was comprised of 96 individual wells. As cost and throughput have become increasingly important, however, the industry has begun to move to higher density plates including 384 wells and 1536 wells. The Company believes that this trend towards miniaturization will continue to be a significant factor affecting the microplate reader market in the future.

The Company's MAXline strategy has been to continue to introduce new products that include first-of-a-kind novel features, as well as to offer varying feature sets and price points to address different market segments. The Company has historically focused on the premium end of the microplate reader market through offering advanced capabilities. Some of the first-of-a-kind features that the Company has pioneered include: the first reader and software capable of kinetic analysis, the first monochromator-based reader that enabled continuous wavelength selection and the first reader capable of performance comparable to a spectrophotometer. In each case, the Company believes that the innovation helped expand the utility of readers and more broadly to expand the available market for microplate readers. Sales of the Company's Maxline products accounted for 52%, 55%, and 54% of total revenues for the years ended December 31, 1998, 1997 and 1996, respectively. The Company's MAXline family currently includes the following seven primary products:

Vmax. The Company's first microplate reader which was launched in 1987 and was the first microplate reader with kinetic read capability. This product is designed to address the needs of biochemists.

Emax. This product is aimed at the market for traditional microplate readers that do not require kinetic capability. It was introduced by the Company to provide a reader for customers in academia and other customers with restricted capital budgets.

SPECTRAmax PLUS. The Company's first microplate reader aimed at the spectrophotometer market. It was the industry's first microplate reader that was able to combine the high-throughput of a microplate reader with the performance of a cuvette based spectrophotometer as a result of the proprietary PathCheck Sensor technology developed by the Company. The SPECTRAmax PLUS was also the first microplate reader with the ability to read wavelengths as short as 190 nanometers and as long as 1,000 nanometers, the equivalent range to a spectrophotometer.

SPECTRAmax 190. This product replaced the SPECTRAmax 250, which was the world's first microplate reader that incorporated a monochromator for continuous wavelength selection. Wavelength selection provides for enhanced convenience and flexibility in assay design. In addition, the 190 also offers the Company's proprietary PathCheck Sensor technology.

SPECTRAmax 340PC. This product is a visible range microplate spectrophotomer, offering tunability and the additional capability of PathCheck Sensor technology.

VERSAmax. The VERSAmax is the Company's low cost variable wavelength offering that provides kinetic capability and temperature control.

SPECTRAmax GEMINI. SPECTRAmax GEMINI was introduced in late 1998, and represents the latest innovation in the Company's growing list of product firsts. It is the world's first dual-scanning microplate spectrofluorometer. By incorparating two scanning monochromators, the SPECTRAmax GEMINI allows the user to automatically optimize the instrument setting for every fluorophore that is in use today. GEMINI also represents the Company's first microplate reader capable of multi-mode operation, in that the product is capable of fluorescence, luminescence and time-resolved fluorescence measurements.

Cell Analysis Systems

Many therapeutic drugs are targeted to cell membrane receptors: special proteins that function as control switches for cell activity and are triggered by the specific binding of soluble natural substances to relay messages to the cell via "signal transduction" mechanisms. Therapeutic drugs which act on receptors either mimic or block the action of the natural receptor-specific substance. The therapeutic potential of such drugs is, therefore, most appropriately studied using live cell systems. These studies are inherently challenging, but a high value is placed upon them by the pharmaceutical industry and the research community. A focus of the Company is the provision of tools for studying the response of live cells to different compounds, both for research and for drug screening purposes. Examples of these tools are the Company's FLIPR System Products and Cytosensor Systems. Sales of the Company's Cell Analysis products accounted for 35%, 33% and 31% of total revenues for the years ended December 31, 1998, 1997 and 1996, respectively.

FLIPR System Products

The Fluorometric Imaging Plate Reader ("FLIPR") products satisfy a key demand from pharmaceutical companies for live cell analysis at a high-throughput rate. FLIPR was the first instrument to enable high-throughput screening of live cells with high information content on cellular activation. The primary applications for the FLIPR products are the measurement of intracellular calcium ion flux and membrane potential change, both of which provide critical information on the activation of cells by test compounds.

In the FLIPR system, cells, along with appropriate fluorescent dyes, are maintained in microplates in a humidified, thermally-controlled compartment together with compound-addition plates. A laser light source is then passed through the wells to provide excitation illumination and fluorescence from cells on the bottom of the wells. During the reading cycle, a built-in pipettor transfers compound samples from the compound-addition plate to the cell plate and the reaction is continuously monitored by a CCD camera at intervals of less than 1 second. This strategy allows for real-time monitoring of cells before and after compound addition, thus allowing the measurement of rapid non-linear, response kinetics. The FLIPR limited depth-of-field fluorometry optical design is patented. The Company currently offers two products based on the FLIPR technology platform.

FLIPR. This product was introduced in 1996 and was the Company's first entry into the high-throughput screening market. FLIPR is capable of simultaneously analyzing each well of a 96 well plate and has a throughput of approximately 10,000 samples per day.

FLIPR 384. FLIPR 384, introduced in 1998, is the second generation FLIPR product, and combines all of the benefits of the original FLIPR along with new automation capabilities and the ability to analyze samples in 384 well microplates. FLIPR 384 can screen as many as 50,000 samples daily, and has an optional integrated plate stacker which can dramatically reduce the need for human intervention during sample processing. In addition, the instrument also incorporates interfaces that enable it to integrate into automated screening lines.

Cytosensor Products

The Company developed the Cytosensor System to provide a fast, reliable, single assay system to investigate multiple cellular functions in numerous cell types. The Cytosensor System incorporates the Company's core Light Addressable Potentiometric Sensor ("LAPS") technology, a detection system capable of measuring a wide variety of chemical reactions as they occur on the surface of a silicon based sensor, into a patented system that permits researchers to conduct microphysiometry (the study of cellular metabolism) without destroying the cells. Cellular metabolism is the most fundamental and essential of all physiological processes, and allows for the monitoring of cell activation, stimulation, growth, toxicity and other biochemical events crucial

to the development of new therapeutics. The Company believes that the primary applications of the Cytosensor system are receptor characterization, orphan receptor identification, human cell pharmacological profiling and in vitro toxicology. The Company offers a 4-chamber Cytosensor system targeting customers with relatively low throughput requirements and an 8-chamber system for customers who require higher throughput.

Threshold System Products

The Company's Threshold System is a high sensitivity assay system that incorporates the Company's LAPS technology to quantitate a variety of biomolecules such as DNA, proteins and mRNA rapidly and accurately. The demand for systems which can quantitate contaminants in the manufacturing and quality control of bioengineered products is in response to the growing number of biopharmaceutical therapeutics both entering clinical trials and receiving regulatory approval for commercial sale. The Threshold System emerged from a need by biopharmaceutical companies for more sensitive and reproducible methods to detect contaminants in biopharmaceuticals during the manufacturing and quality control process. Traditional detection methods, such as DNA hybridization, can be slow, difficult to use in a manner that provides reproducible and transferable results, and often require the use of radioactive materials for detection. The Threshold family of products includes a workstation, software and consumable reagent kits. The Company believes that the Threshold System is the only commercially available, fully-integrated system capable of rapidly and accurately quantitating DNA with picogram-level sensitivity.

Software Products

All the Company's instrument products are used with internally designed and developed software, either sold as an integral part of the "package" (FLIPR, Cytosensor, Threshold, Gemini), or as a separate offering (older Maxline instruments). The Company believes that software is an important differentiator for its instrument products relative to the competition.

Business Risks

The Company's business, financial condition and results of operations are subject to various risk factors, including those described below and elsewhere in this report.

- Uncertainty of Future Operating Results. Future operating results will depend on many factors, including demand for the Company's products, the levels and timing of government and private sector funding of life sciences research activities, the timing of the introduction of new products by the Company or by competing companies, the integration of acquired products and technology into manufacturing and distribution processes, the Company's ability to control costs and its ability to attract and retain highly qualified personnel. Furthermore, the Company's gross margins can be significantly affected by many factors, including shifts in product mix, the mix of direct sales as compared with sales through distributors, competitive price pressures and quarterly fluctuations in sales levels relative to fixed costs.

- Fluctuations in Quarterly Operating Results; Lack of Backlog. The Company manufactures its products to forecast rather than to outstanding orders, and products are typically shipped within 30 to 90 days of purchase order receipt. As a result, the Company does not believe the amount of backlog at any particular date is indicative of its future level of sales. The Company's manufacturing procedures may in certain instances create a risk of excess or inadequate inventory levels if orders do not match forecasts. The Company's expense levels are based, in part, on expected future sales. However, the timing of capital equipment purchases by customers is expected to be uneven and difficult to predict. If sales levels in a particular quarter do not meet expectations, the Company may not be able to adjust operating expenses sufficiently quickly to compensate for the shortfall, and the Company's results of operations for that quarter may be materially adversely affected. Many of the Company's products are subject to long customer procurement processes. In addition, a significant portion of the Company's revenues is typically derived from sales of a small number of relatively high-priced systems, and sales of such products may increase as a percentage of revenue in the future. Delays in receipt of anticipated orders of such products could lead to substantial variability from quarter to quarter. Furthermore, the Company has historically received purchase orders and made a significant portion of each quarter's product shipments near the end of the quarter. If that pattern continues, even short delays in the receipt of orders or shipment of products at the end of a quarter could have a material adverse effect on results of operations for that quarter. The Company typically experiences a decrease in the level of

sales in the first calendar quarter as compared to the fourth quarter of the preceding year because of budgetary and capital equipment purchasing patterns in the life sciences industry. The Company also typically experiences a decrease in product revenues in the third quarter compared to the second quarter, related to seasonality primarily associated with lower European and academic sales during the summer months. Revenues for the third quarter of 1998 nominally exceeded second quarter 1998 revenues due to the phasing in of new products. The Company believes that the third quarter seasonality trend may recur in the future as the Company increases efforts to further penetrate European Markets. Operating results in any period should not be considered indicative of the results to be expected for any future period.

- Dependency on New Products; Rapid Technological Change. The life sciences instrumentation market is characterized by rapid technological change and frequent new product introductions. The Company's future success will depend on its ability to enhance its current products and to develop and introduce, on a timely basis, new products that address the evolving needs of its customers.

- Reliance on Sole Source Suppliers. Certain components used in the Company's products are currently purchased from single sources. Any delay in the manufacture of such components could materially adversely affect the Company's business, financial condition and results of operations.

- Year 2000 Compliance. The Company has a Year 2000 project in place to address the potential exposures related to the impact on its computer systems and scientific and manufacturing equipment containing computer related components for the Year 2000 and beyond. The Company is currently assessing its internal and external Year 2000 risks and continues to monitor, validate and implement the identified corrective actions. The Company's internal business systems have been

reviewed and plans are being defined to achieve Year 2000 compliance. Testing of the Company's business critical application programs began in the fourth quarter of 1998 and is scheduled to be complete by the third quarter of 1999. Any failure on the part of the Company to identify and correct Year 2000 compliance issues related to the Company's internal business systems could materially adversely affect the Company's business, financial condition and results of operation.

All of the Company's products that are currently manufactured and supported are Year 2000 compliant. There is an installed base of Company products no longer distributed that are not Year 2000 compliant, all of which have an identified upgrade path which our customers can purchase to achieve compliance.

In addition to risks associated with the Company's own computer systems, equipment and products, the Company has relationships with, and is to varying degrees dependent upon, a large number of third parties that provide information, goods and services to the Company. These include financial institutions, suppliers, vendors, governmental entities, distributors and customers. If significant numbers of these third parties experience failures in their computer systems or equipment due to Year 2000 non-compliance, it could affect the company's ability to process transactions, manufacture products, or engage in similar normal business activities. While many of these risks are outside the control of the Company, the Company has instituted programs, including internal records review and use of external questionnaires, to identify key third parties, assess their level of Year 2000 compliance and address any non-compliance issues. Upon completion of this process, any required contingency plans will be developed.

At this time, the Company believes there are no significant incremental costs anticipated to achieve both internal and external Year 2000 compliance. The total cost of the Year 2000 systems assessments and conversions is being funded through operating cash flows and the Company is expensing these costs as they are incurred. However, there can be no assurances that the third parties of the Company will be in compliance and the Company has no control over whether such third parties will be in compliance with Year 2000 requirements. Any failure on the part of the Company's third parties, which could include inability to deliver or purchase product, could materially adversely affect the Company's business, financial condition and results of operations.

- Other Factors. The Company's business is affected by other factors, including: (i) the possibility that the introduction or announcement of

new products would render existing products obsolete or result in a delay or decrease in purchase orders for existing products; (ii) the extent to which and the timing in which the Company's products achieve market acceptance; (iii) the capital spending policies of the Company's customers (which depend on various factors, including the resources available to such customers, the spending priorities among various types of research equipment and the policies regarding capital expenditures during recessionary periods), including those policies of universities, government research laboratories and other institutions whose funding is dependent on grants from government agencies; (iv) competition in the life sciences instrumentation market which is highly competitive and expected by the Company to increase; (v) the Company's ability to obtain and maintain patent and other intellectual property protection for its products and technology; (vi) compliance with governmental regulations, including those promulgated by the United Sates Food and Drug Administration and similar state and foreign agencies; and (vii) the extent of the Company's sales outside the United States, which involve certain specific risks, including risks related to currency fluctuations, imposition of government controls, export license requirements, restrictions on export of critical technology, political and economic instability or conflicts, trade restrictions, changes in tariffs and taxes and difficulties in staffing and managing international operations and international distributor relationships.

Research and Development

The Company's research and development activities are focused on (i) providing more sensitive quantitative evaluation of biological events; (ii) providing greater throughput capability, especially with smaller sample volumes; (iii) developing biological and chemistry capability to broaden its technology solution; and (iv) developing increasingly sophisticated data management and analysis capability.

There can be no assurance that the Company will not experience difficulties that could delay or prevent the successful development, introduction and marketing of new products or product enhancements. The Company has experienced, and may in the future experience, delays in the development and introduction of new products and product enhancements, and there can be no assurance that the Company will not experience additional delays in the future. In addition, there can be no assurance that

new products will adequately meet the requirements of the marketplace and achieve market acceptance. If the Company is unable, for technological or other reasons, to develop and introduce products in a timely manner in response to changing market environments or customer requirements, there could be a material adverse effect on the Company's business, financial condition and results of operations.

The Company's future success will depend on its ability to enhance its current products and to develop and introduce, on a timely basis, new products that keep pace with technological developments and address the evolving needs of its customers. The Company pursues active development programs in the areas of spectroscopy, molecular and cell biology, chemistry, electronic systems and computer software. Company-funded research and development expenditures were approximately $5,686,000, $4,721,000 and $4,581,000 during 1998, 1997 and 1996, respectively. The Company expects to continue to increase its Company-funded research and development expenditures as new products are developed to address the evolving needs of its customers. See Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations."

Marketing and Customers

The Company markets and sells high performance bioanalytical systems to technically sophisticated customers. To access and support this market appropriately, the Company is continuing to make a significant investment in building a direct sales, service and technical support organization worldwide. The Company believes that providing high quality technical assistance to customers is critical to its long-term success.

The Company distributes its products primarily through direct sales representatives in the United States. The sales effort in the United States is supported by a team of service, technical and applications specialists employed by the Company. The Company has subsidiaries in the United Kingdom and Germany responsible for selling and servicing the Company's products. The Company's products are also sold through international distributors, most of which enter into distribution agreements with the Company that provide for exclusive distribution arrangements and minimum purchase targets. Such agreements also generally prohibit the distributors from designing, manufacturing, promoting or selling any products that are competitive with the Company's products. The use

of distributors involves certain risks, including the risks that distributors will be unable to satisfy financial obligations to the Company or will cease operations. The Company also does not currently have distributors in a number of significant international markets that it has targeted and will need to establish additional international distribution relationships. There can be no assurance that the Company will engage qualified distributors in a timely manner, and the failure to do so could have a material adverse effect on the Company's business, financial condition and results of operations.

Product sales to customers outside of the United States accounted for approximately 40%, 38% and 40% of the Company's product revenues in 1998, 1997 and 1996, respectively. International sales are anticipated to account for an increasing percentage of revenues in the future. The Company expects to continue expanding its international operations in order to take advantage of increasing international market opportunities resulting from worldwide growth in the life sciences industry. The Company faces a number of risks in its international sales and operations. Although currently a majority of the Company's international export sales are denominated in U.S. dollars, as the Company expands its international operations it may be required to invoice a greater proportion of its sales in local currencies. Consequently, fluctuations in the value of foreign currencies relative to the U.S. dollar may adversely affect the Company's results of operations because of currency translation adjustments or adversely impact sales and profitability if the value of foreign currencies declines relative to the U.S. dollar. International sales and operations may also be materially adversely affected by the imposition of government controls, export license requirements, restrictions of the export of critical technology, political and economic instability or conflicts, trade restrictions, changes in tariffs and taxes, difficulties in staffing and managing international operations, problems in establishing or managing distributor relationships and general economic conditions. See Note 7 to Notes to the Financial Statements on pages F-14 and F-15 of this report for more information on foreign and domestic operations and export sales.

The Company believes that, to a significant extent, its growth prospects depend on capital spending policies of its customers, levels of government research funding, and the Company's ability to gain acceptance by a broader group of customers of the efficiency and efficacy of the Company's innovative technologies, including the Cell Analysis Systems.

Manufacturing

Molecular Devices manufactures its products at its facility in Sunnyvale, California. The Company manufactures its own components where it believes it adds significant value, but relies on suppliers for the manufacture of selected components and subassemblies, which are manufactured to the Company's specifications. The Company conducts all final testing and inspection of its products. The Company has established a quality control program, including a set of standard manufacturing and documentation procedures intended to ensure that, where required, the Company's instruments are manufactured in accordance with Good Manufacturing Practices ("GMP").

Certain components used in the Company's products are currently purchased from single sources. Any delay in the manufacture of such components could materially adversely affect the Company's business, financial condition and results of operations. Additional components, such as optical, electronic and pneumatic devices, are currently purchased in configurations specific to the Company's requirements and, together with certain other components, such as computers, are integrated into the Company's products. Although the Company believes that most of the components used in its products are available from alternate sources, any unanticipated interruption in the supply of these components or other supplies, or changes to the specifications or interface of standard components or supplies adopted unilaterally by their manufacturers, could require the Company to redesign its products to utilize alternative or modified components or supplies. The Company's reliance on sole-source vendors involves several risks in addition to potential shortages of supply, including reduced control over delivery schedules, and risks of adverse manufacturing yields, reduced quality and higher costs. In the event of yield, quality, delivery or supply problems, the Company could be forced to delay shipment of products, which could have a material adverse effect on the Company's business, financial condition and results of operations.

The Company manufactures its products to forecast rather than to outstanding orders, and products are typically shipped within 30 to 90 days of purchase order receipt. As a result, the Company typically does not have substantial backlog, and the amount of backlog at any particular date is generally not indicative of its future level of sales.

The Company typically warrants its products for one year. Historically, the Company's warranty repairs and returns have been immaterial.

Patents and Proprietary Technologies

The Company relies on patents and other proprietary rights, including trade secrets, to protect its competitive position. There can be no assurance that any applications will result in the issuance of a patent or that any issued patent will afford the Company any significant protection from competition.

The patent positions of life sciences instrumentation firms, including that of the Company, are uncertain and involve complex legal and factual questions. In addition, the coverage claimed in a patent application can be significantly reduced before the patent is issued. Consequently, the Company does not know whether any of its applications will result in the issuance of patents or, if any patents are issued, whether they will provide significant proprietary protection or will be challenged, circumvented or invalidated. Since patent applications in the United States are maintained in secrecy until patents issue, and since publication of discoveries in the scientific or patent literature often lags behind actual discoveries, the Company cannot be certain that it was the first creator of inventions covered by its pending patent applications or that it was the first to file patent applications for such inventions. Moreover, the Company may have to participate in interference proceedings declared by the U.S. Patent and Trademark Office to determine priority of invention, which could result in substantial cost to the Company, even if the eventual outcome is favorable to the Company. There can be no assurance that the Company's patents, if issued, would be held valid. Because many holders of patents in the field of life sciences instrumentation have substantially greater resources than the Company and because patent litigation is very expensive, Molecular Devices may not have the resources necessary to successfully challenge the validity of such patents or withstand claims of infringement in cases where the Company's position has merit. Even if the Company is successful in prevailing in such actions, the cost of such litigation could have a material adverse effect on the Company's financial condition and results of operations. An adverse outcome in any future patent dispute could subject the Company to significant liabilities to third parties, require disputed rights to be licensed from third parties or require the Company to cease using the infringed technology. No assurance can be given that the Company would be able to obtain licenses to these patents on commercially reasonable terms, if at all, or develop or obtain alternative technology.

The Company also relies on trade secret and copyright law, employee and third-party nondisclosure agreements and other protective measures to protect its intellectual property rights pertaining to its products and technology. There can be no assurance that these agreements and measures will provide meaningful protection of the Company's trade secrets, know-how, or other proprietary information in the event of any unauthorized use, misappropriation or disclosure or that others will not independently develop substantially equivalent proprietary technologies. In addition, the laws of certain foreign countries do not protect the Company's intellectual property rights to the same extent as do the laws of the United States. There can be no assurance that the Company will be able to protect its intellectual property successfully.

Competition

The market for life sciences instrumentation is highly competitive, and the Company expects competition to increase. There are three principal sources of competition for the Company's products. First, the Company competes for the allocation of customer capital funds with many other companies marketing capital equipment, including those not directly competitive with any of the Company's products.

Second, some of the Company's products compete directly with similar products from other companies. Since their introduction in 1987, the MAXline microplate readers have consistently accounted for over 50% of the Company's total revenues. The microplate reader market is characterized by intense competition from a number of companies including Bio-Rad Laboratories, Inc., Thermo Bioanalysis Corporation, Bio-Tek Instruments, Inc., and Perkin-Elmer Corporation that offer, or may in the future offer, products with performance capabilities generally similar to those offered by the Company's products. The Company expects that competition is likely to increase in the future, as several current and potential competitors have the technological and financial ability to enter the microplate reader market. Some of the Company's competitors have substantially greater financial, technical, marketing, sales and other resources than the Company, and certain of these companies have a larger market share worldwide. The Company's MAXline products are generally priced at a premium to other microplate readers. The Company competes in the microplate reader market primarily on the basis of performance and productivity, and there can be no assurance that the Company can continue to compete successfully in this market.

Third, many companies, research institutions and government organizations that might otherwise be customers for the Company's products employ methods for bioanalytical analysis that are internally developed. Many of

these companies also have significantly greater financial, technical, marketing, sales and other resources than does the Company. In addition, these companies and institutions compete with the Company in recruiting and retaining highly qualified scientific and management personnel.

Although the Company is not aware of fully-integrated systems on the market that compete directly with its Threshold or Cell Analysis products, competitive products using new technologies may be introduced. While the Company believes that most methods developed internally are manual, there can be no assurance that other organizations will not succeed in developing technologies and products that are more effective than those of the Company or that would render the Company's products obsolete or noncompetitive. The Company believes that the primary competitive factors in the market for the Company's products are breadth of applications, ease-of-use, productivity enhancement, quantitative accuracy, quality, support and price/performance. The Company believes that it competes favorably with respect to these factors.

Government Regulations

Government regulations play a significant role in the research, development, production and commercialization of health care products, such as pharmaceuticals, diagnostics and certain instrumentation. None of the Company's products currently require FDA approval except for certain of the Company's MAXline Microplate Readers that are used in clinical or diagnostic applications. FDA regulations apply not only to therapeutics and other health care products, but also to the processes and production facilities used to produce such products.

Clinical diagnostic applications of the Company's products are and will continue to be subject to FDA device and reagent approval and regulations. Before a medical device can be commercially distributed, the manufacturer must submit to the FDA either a 510(k) or a PMA application. A 510(k) notification can be submitted when the device is substantially equivalent to another device currently being marketed in the classes of devices eligible for marketing pursuant to 510(k) notifications. Receipt of 510(k) clearance takes at least three months, but may take much longer and may require the submission of clinical

safety and efficacy data to the FDA. There can be no assurance that the use of a 510(k) notification will be available for any clinical application of the Company's products or for any of the Company's potential diagnostic products.

A PMA, which is required for medical devices not eligible to be marketed under a 510(k) notification, must demonstrate that the product is safe and effective and thus requires more time to prepare and a more complex submission to the FDA. Following completion of laboratory evaluations and adequate controlled clinical trials to establish safety and efficacy of the product for its intended use, the Company would be required to file a PMA application, which includes the results of all research and product development, clinical studies and related information. Among the conditions for FDA approval is the requirement that the prospective manufacturer's quality control and manufacturing and documentation procedures conform to GMP. Domestic manufacturing facilities are subject to biennial FDA inspections and foreign manufacturing facilities are subject to periodic FDA inspections, or inspections by the foreign regulatory authorities with reciprocal inspection agreements with the FDA. FDA review and approval of a PMA application often requires 12 to 18 months, or even longer, and must be completed before the product may be sold for clinical diagnostic use in the United States. The process of obtaining PMAs from the FDA and other regulatory authorities can be costly, time consuming and subject to unanticipated delays.

The Company has limited experience in obtaining regulatory approvals. The Company has, to date, been required to obtain 510(k) clearance with respect to certain clinical applications of its MAXline Microplate Readers. There can be no assurance that 510(k) clearance for any future product or modification of an existing product will be granted by the FDA within a reasonable time frame, or at all, or that in the future the FDA will not require manufacturers of certain medical devices to engage in a more thorough and time consuming approval process than the 510(k) process, or that the FDA or certain corresponding government agencies will permit marketing of the Company's systems in their respective jurisdictions. There can be no assurance that the approvals of the Company's or its customers' products, processes or facilities will be granted. Any failure to obtain, or delay in obtaining, any such required approval could adversely affect the Company's marketing efforts.

As a result of the clinical applications of certain of the Company's MAXline Microplate Readers, the Company is registered with the FDA as a medical device manufacturer. As such, the Company may be inspected on a routine basis by the FDA for compliance with the FDA's GMP and other applicable regulations. These regulations require that the Company manufacture its products and maintain

related documentation in a prescribed manner with respect to manufacturing, testing and quality control activities. Further, the Company is required to comply with various FDA requirements for reporting of product malfunctions and other matters. The regulatory standards for manufacturing are currently being applied stringently by the FDA and state regulatory agencies. Noncompliance with FDA or applicable state agency regulations or discovery of previously unknown problems with a product, manufacturer or facility may result in restrictions on such product or manufacturer, including fines, costly recalls, injunction or seizure of products, refusal of the government to approve or clear product approval applications or to allow the Company to enter into government supply contracts or even withdrawal of the product from the market or criminal prosecution, all of which could have a material adverse effect on the Company's business, financial condition and results of operations.

A significant percentage of the Company's product revenues are derived from sales outside of the United States. International regulatory bodies often establish varying regulations governing product standards, packaging requirements, labeling requirements, import restrictions, tariff regulations, duties and tax requirements. As a result of the Company's sales in Europe, the Company may be required to obtain ISO 9000 certification and has had to obtain a "CE" mark certification for its products, an international symbol of quality and compliance with applicable European medical device and instrument manufacturing directives. While the Company expects to institute an ISO 9000 compliance program once regulations are finalized, there can be no assurance that the Company will be successful in meeting certification requirements.

The Company is also subject to numerous environmental and safety laws and regulations, including those governing use of hazardous materials. Any violation of, and the cost of compliance with, these regulations could adversely impact the Company's operations.

Human Resources

As of December 31, 1998, Molecular Devices employed 164 persons full time, including 43 in research and development, 46 in manufacturing, 59 in marketing and sales and 16 in general administration and finance. Of these employees, 37 hold Ph.D. or other advanced degrees. None of the Company's employees is covered by collective bargaining agreements, and the Company considers relations with its employees to be good.

Item 2 - Properties

Molecular Devices leases approximately 60,000 square feet of laboratory, manufacturing and administrative space in Sunnyvale, California. The Company's lease expires in November, 2001. The Company believes that its facilities will be sufficient for its operations through at least 1999. The Company also maintains a sales and service office in the United Kingdom and a sales and technical office in Germany.

Item 3 - Legal Proceedings

The Company is not currently a party to any material legal proceedings.

Item 4 - Submission of Matters to a Vote of Security Holders

None.

PART II

Item 5 - Market for Registrant's Common Equity and Related Stockholder Matters

The Company's common stock is traded on the Nasdaq National Market under the symbol "MDCC."

<TABLE>

The prices per share reflected on the table below represent the range of high and low closing prices of the common stock on the Nasdaq National Market, for the period indicated.

<CAPTION>

	1998		1997	
	High	Low	High	Low
<S>	<C>	<C>	<C>	<C>
First Quarter	22 3/8	15 1/4	16 3/4	13 3/8
Second Quarter	19 3/8	14 3/8	17 5/8	12 1/2
Third Quarter	18 1/2	12 1/8	21 7/8	16 1/2
Fourth Quarter	21 3/4	16	23 3/4	14 7/8

</TABLE>

Historically, the Company has not paid cash dividends on its common stock and does not intend to pay any cash dividends in the foreseeable future. Any future cash dividends will be determined by the Board of Directors. As of March 15, 1999, there were approximately 113 stockholders of record of the Company. On March 15, 1999, the last sale price reported on the Nasdaq National Market for the Company's common stock was $21.875 per share.

The Company entered into employment arrangements with each of Mr. Joseph D. Keegan, Mr. Timothy A. Harkness and Mr. John S. Senaldi pursuant to which the Company is obligated to issue to each such officer shares of its Common Stock in exchange for services rendered. As a result of these arrangements, the Company issued shares of its Common Stock to these officers on the dates and amounts indicated below in reliance on the exemption from registration afforded by Section 4(2) of the Securities act of 1933, as amended.

	Number of Shares	Date of Issue
Mr. Keegan	3,750	06/30/98
	3,750	09/30/98
	3,750	12/30/98
Mr. Harkness	1,250	10/09/98
Mr. Senaldi	312	11/06/98

Item 6 - Selected Consolidated Financial Data

<TABLE>

The following table sets forth selected historical financial information for the Company certain portions of which are based on, and should be read in conjunction with, the Company's audited financial statements that are being filed as a part of this report.

<CAPTION>

	Years Ended December 31,				
	1998	1997	1996	1995	1994
	(In thousands, except per share data)				
<S>	<C>	<C>	<C>	<C>	<C>
Consolidated Statements of Income Data:					
Revenues	$ 47,798	$ 38,286	$ 30,926	$ 25,615	$ 22,460
Income from operations	9,442	7,256	47	3,011	1,763
Other income (expense), net	1,584	1,220	1,079	(33)	(201)
Income before income taxes	11,026	8,476	1,126	2,978	1,562
Income tax provision (benefit)	4,245	3,174	(1,126)	(1,081)	43
Net income	$ 6,781	$ 5,302	$ 2,252	$ 4,059	$ 1,519
Basic net income per share	$ 0.72	$ 0.58	$ 0.26	$ 0.58	$ 0.22
Diluted net income per share	$ 0.70	$ 0.55	$ 0.24	$ 0.53	$ 0.21
Shares used in computing basic net income per share	9,411	9,137	8,828	7,031	6,920

Shares used in computing diluted net income per share	9,738	9,721	9,524	7,644	7,310
Pro-Forma Consolidated Statements of Income Data:					
Pro-forma diluted net income per share	$ 0.75	$ 0.55	$ 0.37	$ 0.24	$ 0.13

</TABLE>

<TABLE>

This information has been provided to report the Company's pro-forma diluted net income per share data and is calculated excluding the impacts of the write-offs of acquired in-process research and development in 1998 and 1996 and assuming a tax provision rate of 38.5% (37.5% in 1997).

<CAPTION>

Consolidated Balance Sheet Data:

<S>	<C>	<C>	<C>	<C>	<C>
Cash and cash equivalents	$ 32,689	$ 26,773	$ 23,727	$ 20,379	$ 2,201
Working capital	43,438	35,752	27,395	22,786	3,681
Total assets	54,405	42,791	36,833	28,800	9,020
Long-term obligations, less current portion	--	--	--	--	1,582
Retained earnings (accumulated deficit)	4,235	(2,546)	(7,848)	(10,100)	(14,159)
Total stockholders' equity	45,823	37,417	29,277	24,525	3,757

</TABLE>

Note that income from operations for the fiscal year ended December 31, 1998 includes a $876,000 (or $0.05 per share) charge for the acquisition of in-process technology and acquisition costs related to the Company's acquisition of certain technology rights from Affymax Research Institute, a subsidiary of Glaxo-Wellcome. In addition, the income from operations for the fiscal year ended December 31, 1996 includes a $4.6 million (or $0.13 per share) charge for the acquisition of in-process technology and acquisition costs related to the Company's acquisition of NovelTech Systems, Inc.

Item 7 - Management's Discussion and Analysis of Financial Condition and Results of Operations

Overview

Except for the historical information contained herein, the following discussion contains forward-looking statements that involve risks and uncertainties. The Company's actual results could differ materially from those discussed here. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in this section as well as under "Item I. Business - Business Risks."

Molecular Devices Corporation ("Molecular Devices" or the "Company") designs, develops, manufactures and markets proprietary, high performance, bioanalytical measurement systems, including software and consumables, designed to accelerate and improve the cost-effectiveness of the drug discovery and development process. The Company integrates its expertise in engineering, molecular and cell biology and chemistry to develop proprietary core technologies which it incorporates into its sophisticated bioanalytical systems, including MAXline Microplate Readers, Cell Analysis Systems and Threshold System. As part of its strategy to provide complete customer solutions, the Company also offers certain dedicated consumables, as well as software upgrades, and service on a contract basis. The Company's systems have applications in many aspects of life science including the therapeutic development process, from drug discovery and clinical research through manufacturing and quality control.

Results of Operations

Years ended December 31, 1998, 1997 and 1996

Revenues. Revenues for 1998 increased by 25% to approximately $47.8 million from approximately $38.2 million in 1997. All three product families showed increased levels of revenue. MAXline revenues increased due to both greater sales of the new SPECTRAmax products addressing both the absorbance and fluorescence markets and increased penetration of MAXline products into our European distribution channels. Cell Analysis revenues increased due to both the introduction of new FLIPR products and increased FLIPR demand worldwide. Threshold revenues increased due to greater volume shipments to military customers worldwide.

Revenues for 1997 increased by 24% to approximately $38.2 million from approximately $30.9 million in 1996. The MAXline and Cell Analysis product

families showed increased levels of revenue. MAXline revenues increased primarily due to greater sales of new SPECTRAmax products and increased penetration of MAXline products into international distribution channels. Cell Analysis revenues increased primarily due to greater sales of new FLIPR products worldwide. Threshold revenues decreased primarily due to lower shipments to the U.S. Army and decreased shipments of commercial Threshold products internationally.

Gross margin. Gross margin increased to 62.9% in 1998 from 62.3% in 1997. This increase relates primarily to increased sales of new higher margin MAXline and FLIPR products.

In 1997, gross margin increased nominally to 62.3% from 62.0% in 1996. This increase relates primarily to increased sales of new higher margin MAXline products and improved margins on sales of Cell Analysis products.

Research and development. Research and development expenses for 1998 increased by 20% to approximately $5.7 million from approximately $4.7 million in 1997. This increased spending relates primarily to additional development expenses required to support the introduction of new MAXline and FLIPR products (including additional personnel).

Research and development expenses for 1997 increased nominally by 3% to approximately $4.7 million from approximately $4.6 million in 1996. The relatively flat spending in 1997 was due to increased spending on personnel, partially offset by decreased external product development costs.

Research and development expenses as a percentage of revenues were 11.9%, 12.3% and 14.8% in 1998, 1997 and 1996, respectively.

Write-off of acquired in-process research and development. The Company recorded an $876,000 charge during the third quarter of 1998 due to the write-off of acquired in-process research and development related to the Company's acquisition of technology rights from Affymax Research Institute, a subsidiary of Glaxo Wellcome (see Note 4 of "Notes to Consolidated Financial Statements" included in Part IV). The $876,000 represents the entire amount of up-front consideration that has, or will be, paid to Affymax as well as all related transaction costs associated with this technology license agreement. Based on the stage of development of this technology and the assessment of the time and resources needed to complete product development based on this technology, the Company believed that the acquired technology had not reached economic or technological feasibility at the time of the acquisition.

The Company recorded a charge of approximately $4.6 million during the second quarter of 1996 due to the write-off of acquired in-process research and development and acquisition related costs related to the Company's acquisition of NovelTech Systems, Inc. in 1996. The acquired in-process technology represented the appraised value of technology in the development stage that had not yet reached economic and technological feasibility and did not have alternative future uses at the time of the acquisition. The Company determined this amount to be in-process research and development and recorded the charge based on, among other factors, the stage of development of each product acquired, the time and resources needed to complete product development, expected income and associated risks. See Note 4 of "Notes to Consolidated Financial Statements" included in Part IV.

Selling, general and administrative. Selling, general and administrative expenses for 1998 increased by 18% to approximately $14.1 million from approximately $11.9 million in 1997 and by 20% in 1997 compared to approximately $9.9 million in 1996. The increased spending for both periods is primarily the result of additional spending on marketing, sales and service related activities (including increased personnel) as the Company continued its efforts to expand worldwide market coverage and introduce new products. Selling, general and administrative expenses as a percentage of revenues were 29.5%, 31.0% and 32.1% in 1998, 1997 and 1996, respectively.

Other income (net). Net other income, consisting primarily of interest income, increased by 30% in 1998 to approximately $1.6 million from approximately $1.2 million in 1997 and by 13% in 1997 from approximately $1.1 million in 1996. Both increases are due to greater interest income earned resulting from higher cash balances (provided primarily from operations) period to period.

Income tax provision. Income tax provisions of approximately $4.2 million (38.5% effective rate) and approximately $3.2 million (37.5% effective rate) were recorded in 1998 and 1997, respectively. The increased effective rate period to period is due primarily to anticipated decreased tax benefits from the Company's Foreign Sales Corporation.

An income tax benefit of $1.1 million was recorded in 1996. The benefit

recorded in 1996, which had the effect of increasing net income, related primarily to a reduced valuation allowance on the Company's deferred tax asset. As of December 31, 1996, management concluded that no valuation allowance was required on the net deferred tax asset based on its assessment that current levels of income would be sufficient to realize the tax benefit.

Liquidity and Capital Resources

Since 1993, the Company has financed its operations primarily from cash flows provided by operations, which contributed approximately $6.9 million, $4.4 million and $4.6 million in 1998, 1997 and 1996, respectively. Net cash used in investing activities was approximately $1.5 million, $543,000 and $1.9 million in 1998, 1997 and 1996, respectively, and was used primarily for capital expenditures, except for 1996 when approximately $1.2 million of cash was used for the acquisition of NovelTech. Net cash provided by financing activities was approximately $521,000 and $534,000, respectively, for 1998 and 1996, while net cash used in financing activities was approximately $567,000 for 1997. The 1998 and 1996 proceeds relate primarily to stock option exercises. The 1997 use of funds reflects repayment of the $1.5 million promissory note related to the 1996 acquisition of NovelTech as partially offset by proceeds from stock option exercises.

The Company believes that existing capital resources will be sufficient to fund its operations for the foreseeable future. However, the Company's future liquidity and capital requirements will depend upon numerous factors, including the resources the Company devotes to developing, manufacturing and marketing its products, the extent to which the Company's products generate market acceptance and demand, potential acquisition opportunities that may arise and other factors. As such, there can be no assurance that the Company will not require additional financing and, therefore, the Company may in the future seek to

raise additional funds through bank facilities, debt or equity offerings or other sources of capital. There can be no assurance that additional funding will be available when needed or on terms acceptable to the Company, which could have a material adverse effect on the Company's business, financial condition and results of operations.

Year 2000 Compliance

The Company has a Year 2000 project in place to address the potential exposures related to the impact on its computer systems and scientific and manufacturing equipment containing computer related components for the Year 2000 and beyond. The Company is currently assessing its internal and external Year 2000 risks and continues to monitor, validate and implement the identified corrective actions. The Company's internal business systems have been reviewed and plans are being defined to achieve Year 2000 compliance. Testing of the Company's business critical application programs began in the fourth quarter of 1998 and is scheduled to be complete by the third quarter of 1999. Any failure on the part of the Company to identify and correct Year 2000 compliance issues related to the Company's internal business systems could materially adversely affect the Company's business, financial condition and results of operation.

All of the Company's products that are currently manufactured and supported are Year 2000 compliant. There is an installed base of Company products no longer distributed that are not Year 2000 compliant, all of which have an identified upgrade path which our customers can purchase to achieve compliance.

In addition to risks associated with the Company's own computer systems, equipment and products, the Company has relationships with, and is to varying degrees dependent upon, a large number of third parties that provide information, goods and services to the Company. These include financial institutions, suppliers, vendors, governmental entities, distributors and customers. If significant numbers of these third parties experience failures in their computer systems or equipment due to Year 2000 non-compliance, it could affect the company's ability to process transactions, manufacture products, or engage in similar normal business activities. While many of these risks are outside the control of the Company, the Company has instituted programs, including internal records review and use of external questionnaires, to identify key third parties, assess their level of Year 2000 compliance and address any non-compliance issues. Upon completion of this process, any required contingency plans will be developed.

At this time, the Company believes there are no significant incremental costs anticipated to achieve both internal and external Year 2000 compliance. The total cost of the Year 2000 systems assessments and conversions is being funded through operating cash flows and the Company is expensing these costs as they are incurred. However, there can be no assurances that the third parties of the Company will be in compliance and the Company has no control over whether such third parties will be in compliance with Year 2000 requirements. Any

failure on the part of the Company's third parties, which could include inability to deliver or purchase product, could materially adversely affect the Company's business, financial condition and results of operations.

Item 7a - Quantitative and Qualitative Disclosures About Market Risk

The Company is exposed to market risk, including changes in interest rates and foreign currency exchange rates. The primary objective of the Company's investment activities is to preserve principal while at the same time maximizing the income we receive from our investments without significantly increasing risk. A discussion of the Company's accounting policies for financial instruments and further disclosures relating to financial institutions is included in the Summary of Significant Accounting Policies note in the Notes to Consolidated Financial Statements.

The Company's interest income is sensitive to changes in the general level of interest rates, primarily U.S. interest rates. In this regard, changes in U.S. interest rates affect the interest earned on the Company's cash equivalents. The Company invests its excess cash primarily in demand deposits with United States banks and money market accounts and short-term securities. These securities, consisting of commercial paper and U.S. government agency securities, are carried at market value (which approximate cost), typically mature or are redeemable within 90 days, and bear minimal risk. The Company has not experienced any significant losses on the investments.

The Company is exposed to changes in exchange rates in Europe (primarily the United Kingdom and Germany) and Canada. All export sales, with the exception of sales into Canada, are denominated in U.S. dollars and bear no exchange rate risk. Gains and losses resulting from foreign currency transactions in Canada have been immaterial. Translation gains and

losses related to our foreign subsidiaries in the United Kingdom and Germany are accumulated as a separate component of Stockholders' equity. Those gains and losses have been immaterial.

Item 8 - Financial Statements and Supplementary Data

The following consolidated financial statements of the Company and financial statement schedules are attached to this report as pages F-1 through F-16.

Financial Statements:

- Report of Ernst & Young LLP, Independent Auditors
- Consolidated Balance Sheets at December 31, 1998 and 1997
- Consolidated Statements of Income for each of the three years in the period ended December 31, 1998
- Consolidated Statement of Stockholders' Equity for the three years in the period ended December 31, 1998
- Consolidated Statements of Cash Flows for each of the three years in the period ended December 31, 1998
- Notes to Consolidated Financial Statements

Financial Statement Schedules:

Schedule II - Valuation and Qualifying Accounts

All other schedules are omitted because they are not applicable or the required information is shown in the financial statements or notes thereto.

Item 9 - Changes In and Disagreements with Accountants on Accounting and Financial Disclosure

Not applicable.

PART III

Item 10 - Directors and Executive Officers of the Registrant

Information with respect to Directors and Executive Officers may be found in the sections entitled "Proposal 1-Election of Directors," and "Executive Officers of the Company," respectively, appearing in the definitive Proxy Statement to be delivered to stockholders in connection with the solicitation of proxies for the Company's Annual Meeting of Stockholders to be held on May 20, 1999 (the "Proxy Statement"). Such information is incorporated herein by reference.

Item 11 - Executive Compensation

The information required by this item is set forth in the Proxy Statement under the heading "Executive Compensation," which information is incorporated herein by reference.

Item 12 - Security Ownership of Certain Beneficial Owners and Management

The information required by this item is set forth in the Proxy Statement under the heading "Security Ownership of Certain Beneficial Owners and Management," which information is incorporated herein by reference.

Item 13 - Certain Transactions

The information required by this item is set forth in the Proxy Statement under the heading "Certain Transactions," which information is incorporated herein by reference.

PART IV

Item 14 - Exhibits, Financial Statement Schedules and Reports on Form 8-K

(a) The following documents are filed as a part of this report:

1. Financial Statements - See Index to Consolidated Financial Statements as Item 8 on page 19 of this report.

2. Financial Statement Schedules - See Index to Consolidated Financial Statements as Item 8 on page 19 of this report.

3. Exhibits

Exhibit Number	Description of Document
2.1(1)	Form of Agreement and Plan of Merger between the Registrant and Molecular Devices Corporation, a California Corporation
3.1(1)	Amended and Restated Certificate of Incorporation of Registrant
3.2(1)	Bylaws of the Registrant
4.1(1)	Specimen Certificate of Common Stock of Registrant
4.2(1)	Reference is made to Exhibits 3.1 through 3.2
10.1(1)*	1988 Stock Option Plan
10.2(1)*	Form of Incentive Stock Option under the 1988 Stock Option Plan
10.3(1)*	Form of Supplemental Stock Option under the 1988 Stock Option Plan
10.4(1)*	1995 Employee Stock Purchase Plan
10.5(1)	1995 Non-Employee Directors' Stock Option Plan
10.6(1)	Form of Nonstatutory Stock Option under the 1995 Non-Employee Directors' Stock Option Plan
10.7(1)*	1995 Stock Option Plan
10.8(1)*	Form of Incentive Stock Option under the 1995 Stock Option Plan
10.9(1)*	Form of Nonstatutory Stock Option under the 1995 Stock Option Plan
10.10(1)*	Form of Early Exercise Stock Purchase Agreement under the 1995 Stock Option Plan
10.11(1)*	Form of Indemnity Agreement between the Registrant and its Directors and Executive Officers
10.12(1)*	Consulting Agreement dated July 20, 1988 by and between the Registrant and Harden M. McConnell, Ph.D
10.13(1)	Lease Agreement dated January 17, 1994 by and between Aetna Life Insurance Company and the Registrant
10.18(3)*	Chief Financial Officer Employment Agreement
10.19(4)*	Key Employee Agreement for Joseph D. Keegan dated March 11, 1998 (as amended)
10.20(5)	"Exclusive License and Technical Support Agreement" with Affymax
10.21(5)*	Employee Offer Letter for Tim Harkness

10.22(5)* Employee Offer Letter for Tony Lima
10.23(5)* Employee Offer Letter for John Senaldi
21.1(1) Subsidiaries of the Registrant
23.1 Consent of Independent Auditors, Ernst & Young LLP
27 Financial Data Schedule

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(1) Incorporated by reference to the similarly described exhibit in the Company's Registration statement on Form S-1 (File No. 33-98926), as amended.
(2) Incorporated by reference to the similarly described exhibit in the Company's Form 8-K Current Report dated June 7, 1996, and filed June 21, 1996 (as amended August 31, 1996).
(3) Incorporated by reference to the similarly described exhibit in the Company's Form 10-K Annual Reported dated December 31, 1997 and filed March 26, 1998.
(4) Incorporated by reference to the similarly described exhibit in the Company's Form 10-Q Quarterly Report dated June 30, 1998, and filed August 13, 1998.
(5) Incorporated by reference to the similarly described exhibit in the Company's Form 10-Q Quarterly Report dated September 30, 1998, and filed November 13, 1998.
* Management contract or arrangement.

(b) Reports on Form 8-K

None.

(c) Exhibits

See Item 14(a) above.

(d) Financial Statement Schedule

See Item 14(a) above.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized on March 26, 1998.

MOLECULAR DEVICES CORPORATION

By: /s/ Joseph D. Keegan, Ph.D.

Joseph D. Keegan, Ph.D.

<TABLE>
Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

<CAPTION>

Signature	Title	Date
<S>	<C>	<C>
/s/ Joseph D. Keegan, Ph.D. Joseph D. Keegan, Ph.D.	President, Chief Executive Officer and Director (Principal Executive Officer)	March 26, 1999
/s/ Timothy A. Harkness Timothy A. Harkness	Vice President, Finance and Chief Financial Officer (Principal Financial and Accounting Officer)	March 26, 1999
/s/ Moshe H. Alafi Moshe H. Alafi	Director	March 26, 1999

/s/ David L. Anderson --- David L. Anderson	Director	March 26, 1999
/s/ A. Blaine Bowman --- A. Blaine Bowman	Director	March 26, 1999
/s/ Paul Goddard, Ph.D. --- Paul Goddard, Ph.D.	Director	March 26, 1999
/s/ Andre F. Marion --- Andre F. Marion	Director	March 26, 1999
/s/ Harden M. McConnell, Ph.D. --- Harden M. McConnell, Ph.D.	Director	March 26, 1999
/s/ J. Allan Waitz, Ph.D. --- J. Allan Waitz, Ph.D.	Director	March 26, 1999

</TABLE>

REPORT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

The Board of Directors and Stockholders
Molecular Devices Corporation

We have audited the accompanying consolidated balance sheets of Molecular Devices Corporation as of December 31, 1998 and 1997, and the related consolidated statements of income, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 1998. Our audit also included the financial statement schedule listed in the Index at Item 14(a). These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. 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 financial statements referred to above present fairly, in all material respects, the consolidated financial position of Molecular Devices Corporation at December 31, 1998 and 1997, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 1998, in conformity with generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

ERNST & YOUNG LLP

Palo Alto, California
January 18, 1999

<TABLE>

MOLECULAR DEVICES CORPORATION
CONSOLIDATED BALANCE SHEETS
(In thousands, except share and per share amounts)

<CAPTION>

	December 31, 1998	December 31, 1997
<S>	<C>	<C>
Assets:		
Current assets:		
Cash and cash equivalents	$ 32,689	$ 26,773
Accounts receivable net of allowance for doubtful accounts of $325 and $180 at December 31, 1998 and 1997, respectively	12,958	8,899
Inventories	4,055	3,465
Deferred tax asset	1,630	1,867
Other current assets	688	122
Total current assets	52,020	41,126
Equipment and leasehold improvements, net	2,115	1,497
Other assets	270	168
	$ 54,405	$ 42,791
Liabilities and stockholders' equity:		
Current liabilities:		
Accounts payable	$ 2,135	$ 1,316
Accrued compensation	1,728	1,252
Other accrued liabilities	3,217	1,798
Deferred revenue	1,502	1,008
Total current liabilities	8,582	5,374
Commitments		
Stockholders' equity:		
Preferred stock, no par value, issuable in series; 3,000,000 shares authorized, no shares issued and outstanding at December 31, 1998 and 1997, respectively	--	--
Common stock, $.001 par value; 30,000,000 shares authorized; 9,476,062 and 9,331,599 shares issued and outstanding at December 31, 1998 and 1997, respectively	9	9
Additional paid-in capital	42,391	40,302
Retained earnings (accumulated deficit)	4,235	(2,546)
Deferred compensation	(586)	(148)
Accumulated other comprehensive income	(226)	(200)
Total stockholders' equity	45,823	37,417
	$ 54,405	$ 42,791

<FN>

See accompanying notes.

</FN>
</TABLE>

<TABLE>

MOLECULAR DEVICES CORPORATION
CONSOLIDATED STATEMENTS OF INCOME
(In thousands, except per share amounts)

<CAPTION>

	Years ended December 31, 1998	1997	1996
<S>	<C>	<C>	<C>
Revenues	$ 47,798	$ 38,286	$ 30,926
Cost of revenues	17,716	14,426	11,741
Gross Margin	30,082	23,860	19,185

Operating expenses:			
Research and development	5,686	4,721	4,581
Write-off of acquired in-process research and development	876	--	4,637
Selling, general and administrative	14,078	11,883	9,920
Total operating expenses	20,640	16,604	19,138
Income from operations	9,442	7,256	47
Other income, net	1,584	1,220	1,079
Income before income taxes	11,026	8,476	1,126
Income tax provision (benefit)	4,245	3,174	(1,126)
Net income	$ 6,781	$ 5,302	$ 2,252
Basic net income per share	$ 0.72	$ 0.58	$ 0.26
Diluted net income per share	$ 0.70	$ 0.55	$ 0.24

<FN>
See accompanying notes.
</FN>
</TABLE>

MOLECULAR DEVICES CORPORATION
CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY
(In thousands, except share amounts)

<TABLE>
<CAPTION>

	Preferred Stock	Additional Common Stock	Paid-In Capital	Retained Earnings Deferred Compensation	Accumulated Other (Accumulated Deficit)	Total Comprehensive Income	Stockholders' Equity
<S>	<C>	<C>	<C>	<C>	<C>	<C>	<C>
Balance at December 31, 1995	$ --	$ 8	$ 35,159	$ (537)	$(10,100)	$ (5)	$ 24,525
Comprehensive income							
Net income	--	--	--	--	2,252	--	2,252
Currency translation	--	--	--	--	--	60	60
Total comprehensive income							2,312
Issuance of 112,864 shares of common stock for options exercised	--	--	273	--	--	--	273
Issuance of 41,097 shares of common stock under employee stock purchase plan	--	--	337	--	--	--	337
Issuance of 146,342 shares of common stock in connection with acquisition	--	1	1,482	--	--	--	1,483
Tax benefits from employee stock transactions	--	--	211	--	--	--	211
Amortization of deferred compensation	--	--	--	136	--	--	136
Balance at December 31, 1996	--	9	37,462	(401)	(7,848)	55	29,277
Comprehensive income							
Net income	--	--	--		5,302	--	5,302
Currency translation	--	--	--	--	--	(255)	(255)
Total comprehensive income							5,047
Issuance of 318,370 shares of common stock for options exercised	--	--	933	--	--	--	933
Issuance of 25,135 shares of common stock under Employee Stock Purchase Plan	--	--	332	--	--	--	332
Tax benefits from employee stock transactions	--	--	1,706	--	--	--	1,706
Amortization of deferred compensation	--	--	--	122	--	--	122
Reversal of deferred compensation for terminated employees	--	--	(131)	131	--	--	--

Balance at December 31, 1997	--	9	40,302	(148)	(2,546)	(200)	37,417
Comprehensive income							
Net income	--	--	--	--	6,781	--	6,781
Currency translation	--	--	--	--	--	(26)	(26)
Total comprehensive income							6,755
Issuance of 111,666 shares of common stock for options exercised	--	--	521	--	--	--	521
Issuance of 19,984 shares of common stock under Employee Stock Purchase Plan	--	--	309	--	--	--	309
Tax benefits from employee stock transactions	--	--	477	--	--	--	477
Deferred Compensation	--	--	782	(782)	--	--	--
Amortization of deferred compensation	--	--	--	344	--	--	344
Balance at December 31, 1998	$ --	$ 9	$ 42,391	$ (586)	$ 4,235	$ (226)	$ 45,823

<FN>

See accompanying notes.

</FN>
</TABLE>

<TABLE>

MOLECULAR DEVICES CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands, except share amounts)

<CAPTION>

	Years Ended December 31,		
	1998	1997	1996
<S>	<C>	<C>	<C>
Cash flows from operating activities:			
Net income	$ 6,781	$ 5,302	$ 2,252
Adjustments to reconcile net income to net cash used in operating activities:			
Depreciation and amortization	753	729	636
Loss on disposal of fixed assets	--	31	40
Charge for acquired in-process research and development	--	--	4,425
Amortization of deferred compensation	344	122	136
(Increase) decrease in assets:			
Accounts receivable	(4,059)	(3,503)	(1,160)
Inventories	(590)	(995)	(817)
Deferred tax asset	237	1,349	(2,055)
Other current assets	(566)	20	(1)
Increase (decrease) in liabilities:			
Accounts payable	819	(617)	916
Accrued compensation	476	225	151
Other accrued liabilities	2,205	1,336	(31)
Deferred revenue	494	412	120
Net cash provided by operating activities	6,894	4,411	4,612
Cash flows from investing activities:			
Capital expenditures	(1,371)	(625)	(711)
Acquisition of NovelTech Systems, Inc. net of cash on hand	--	--	(1,198)
Other assets	(102)	82	51
Net cash used in investing activities	(1,473)	(543)	(1,858)
Cash flows from financing activities:			
Repayments on credit arrangements	--	--	(76)
Repayment of promissory notes	--	(1,500)	--
Issuance of common stock, net	521	933	610
Net cash provided by (used in) financing activities	521	(567)	534
Effect of exchange rate changes on cash	(26)	(255)	60
Net increase in cash and cash equivalents	5,916	3,046	3,348

Cash and cash equivalents at beginning of year	26,773	23,727	20,379
Cash and cash equivalents at end of year	32,689	26,773	23,727
Supplemental cash flow information:			
Cash paid during the year for:			
Interest	$ --	$ --	$ 6
Income taxes	$ 2,932	$ 472	$ 360
Supplemental schedule of noncash investing and financing activities:			
Disposals of fully depreciated equipment and leasehold improvements	$ --	$ 85	$ 465
Issuance of 146,342 shares of common stock in connection with acquisition	$ --	$ --	$ 1,483
Issuance of promissory notes in connection with acquisition	$ --	$ --	$ 1,500

<FN>

See accompanying notes.

</FN>
</TABLE>

MOLECULAR DEVICES CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1. Summary of Significant Accounting Policies

Basis of Presentation

Molecular Devices Corporation (the "Company"), a Delaware corporation, is principally involved in the design, development, manufacture, sale and service of bioanalytical measurement systems for life sciences applications. The principal markets for the Company's products include pharmaceutical, biotechnology and industrial companies, as well as universities, government research laboratories and other institutions.

The consolidated financial statements include the accounts of the Company and its wholly-owned foreign subsidiaries in Germany and the United Kingdom. All significant intercompany balances and transactions have been eliminated.

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

Cash Equivalents

The Company invests its excess cash primarily in demand deposits with United States banks and money market accounts and short-term securities. These securities, consisting of commercial paper and U.S. government agency securities, are carried at market value (which approximates cost), typically mature or are redeemable within 90 days, and bear minimal risk. The Company has not experienced any significant losses on the investments.

The Company considers all highly liquid investments purchased with an original maturity of 90 days or less to be cash equivalents. All such investments are classified as available for sale.

The Company's investments at December 31, 1998 are comprised of short-term corporate and government and non-government debt instruments that are classified as cash equivalents. Due to the highly liquid nature of the Company's investments, the adjusted cost basis of the investments approximates fair value at December 31, 1998, and therefore unrealized gains or losses at this date are immaterial.

Concentration of Credit Risk

The Company sells its products primarily to corporations, academic institutions, government entities and distributors within the life sciences research market. The Company performs ongoing credit evaluations of its

customers and generally does not require collateral. The Company maintains reserves for potential credit losses and such losses have been within management's expectations.

Inventories

Inventories are stated on a first-in, first-out basis at the lower of cost or market. Demonstration equipment, included in inventories, is amortized over two years.

Equipment and Leasehold Improvements

Equipment is recorded at cost and depreciated using the straight-line method over the estimated useful lives of the assets (ranging from three to five years). Leasehold improvements are amortized over the remaining term of the lease.

Note 1. Summary of Significant Accounting Policies (Continued)

Foreign Currency Translation

The Company translates the assets and liabilities of its foreign subsidiaries into dollars at the rates of exchange in effect at the end of the period and translates revenues and expenses using rates in effect during the period. Gains and losses from these translations are accumulated as a separate component of stockholders' equity. Gains and losses resulting from foreign currency transactions are immaterial and are included in the statements of income.

Revenue Recognition and Warranty

The Company recognizes product revenue at the time of product shipment directly either to a customer or to a distributor and provides for estimated warranty expense at the time of sale. There are no significant customer acceptance requirements or post shipment obligations on the part of the Company. Service contract revenue is deferred at the time of sale and recognized ratably over the period of performance.

Advertising Costs

The Company expenses the cost of advertising as incurred. The Company incurred advertising costs of approximately $766,000, $641,000 and $680,000 for 1998, 1997, and 1996, respectively.

Per Share Data

Basic net income per share is computed based on the weighted average number of shares of the Company's common stock outstanding. Dilutive net income per share is computed based on the weighted average number of shares of the Company's common stock and other dilutive securities.

Note 1. Summary of Significant Accounting Policies (Continued)

Computation of earnings per share is as follows:

	Years Ended December 31,		
	1998	1997	1996
BASIC			
Weighted average common shares outstanding for the period	9,411	9,137	8,828
Net Income	$ 6,781	$ 5,302	$2,252
Net income per share	$ 0.72	$ 0.58	$ 0.26

	Years Ended December 31,

	1998	1997	1996
DILUTED			
Weighted average common shares outstanding for the period	9,411	9,137	8,828
Common equivalent shares assuming exercise of stock options under the treasury stock method	327	584	696
Shares used in per share calculation	9,738	9,721	9,524
Net income	$6,781	$5,302	$2,252
Net income per share	$ 0.70	$ 0.55	$ 0.24

Options to purchase 344,700 shares of common stock at a weighted average per share price of $18.89 were outstanding during 1998, but were not included in the computation of diluted earnings per share because the options' exercise price was greater than the average market price of the common shares and, therefore, the effect would be antidilutive.

Stock Based Compensation

As permitted by Statement of Financial Accounting Standards No. 123 ("SFAS 123"), "Accounting for Stock-Based Compensation," the Company applies APB Opinion 25 and related Interpretations in accounting for its Stock Option Plans and, accordingly, recognizes no compensation expense for stock option grants with an exercise price equal to the fair market value of the shares at the date of grant. Note 5 to the Consolidated Financial Statements contains a summary of the pro forma effects to reported net income and earnings per share for each of the three years in the period ended December 31, 1998, if the Company had elected to recognize compensation cost based on the fair value of the options granted as prescribed by SFAS 123.

Note 1. Summary of Significant Accounting Policies (Continued)

401(K) Plan

The Company's 401(k) Plan ("Plan") covers substantially all of its U.S. based employees. Under the Plan, eligible employees may contribute up to 25% of their eligible compensation, subject to certain internal Revenue Service restrictions. The Company began matching a portion of employee contributions in 1997, up to a maximum of 3% of each employee's eligible compensation. The match is effective December 31 of each year and vests over a period of five years of service. For the years ended December 31, 1998 and 1997, the Company provided approximately $126,000 and $110,000, respectively, for the Company match under the Plan.

Comprehensive Income.

The Company adopted Statement of Financial Accounting Standards ("FAS") 130, "Reporting Comprehensive Income" at December 31, 1998. Under FAS 130, the Company is required to display comprehensive income and its components as part of the Company's full set of financial statements. The measurement and presentation of net income did not change. Comprehensive income is comprised of net income and other comprehensive income. Other comprehensive income includes certain changes in equity of the Company that are excluded from net income. Specifically, FAS 130 requires unrealized gains or losses from the translation of the Company's foreign subsidiaries' financial statements, which are reported separately in Stockholders' Equity, to be included in other comprehensive income.

Reclassifications

Certain reclassifications have been made to the 1996 and 1997 financial statements to conform with the 1998 presentation.

Note 2. Balance Sheet Amounts

	December 31,	
	1998	1997

	(In thousands)	
Inventories:		
Raw materials	$1,793	$ 849
Work-in-process	602	565
Finished goods and demonstration equipment	1,660	2,051
	$4,055	$3,465
Equipment and leasehold improvements:		
Machinery and equipment	$6,124	$4,815
Furniture and fixtures	708	701
Leasehold improvements	566	509
	7,398	6,025
Less accumulated depreciation and amortization	5,283	4,528
Net equipment and leasehold improvements	$2,115	$1,497
Other accrued liabilities:		
Accrued income tax	$ 867	$ 213
Sales tax payable	308	352
License fees payable	500	--
Other	1,542	1,233
	$3,217	$1,798

Note 3. Commitments

Net rental expense under operating leases related to the Company's facilities was approximately $612,000 for each of the three years in the period ended December 31, 1998.

Annual future minimum lease payments under operating leases as of December 31, 1998 are as follows: 1999 - $612,000; 2000 - $595,000; 2001 - $405,000.

Note 4. Write-off of Acquired In-Process Research & Development

On August 28, 1998, the Company acquired license rights to a Telecentric Lens Luminometer technology from Affymax Research Institute, a subsidiary of Glaxo Wellcome. Under the agreement, the Company received the rights to develop, manufacture, market and distribute commercial systems based on this technology in exchange for payment of up-front consideration and continuing royalties to Affymax based on future product sales.

The $876,000 write-off of acquired in-process research and development during the year represents the entire amount of up-front consideration that has been, or will be, paid to Affymax as well as all related transaction costs associated with this technology license agreement. Based on the stage of development of this technology and the assessment of the time and resources needed to complete product development, the Company believed that the acquired technology had not yet reached economic or technological feasibility at the time of the agreement.

On June 7, 1996, the Company acquired all of the outstanding stock of NovelTech Systems, Inc. ("NovelTech") for a cash payment at closing of $1,500,000, issuance of two promissory notes valued at $750,000 each and issuance of 146,342 shares of the Company's common stock valued at $1,482,444 as of the closing date. The notes were repaid in full on January 2, 1997. The acquisition was accounted for as a purchase and the purchase price allocation resulted in a $4,636,780 charge to acquired in-process technology and acquisition related costs in the second quarter of 1996. This charge is not deductible for federal or state tax purposes. The acquired in-process technology represents the appraised value of technology in the development stage that had not yet reached technological feasibility and does not have alternative future uses. In reaching this determination, the Company considered, among other factors, the stage of development of each product, the time and resources needed to complete each product, and expected income and associated risks.

Note 5. Stockholders' Equity

Stock Options

Under the Company's 1995 Stock Option Plan ("1995 Plan"), a total of 750,000 shares of the Company's common stock have been reserved for issuance as either incentive or nonqualified stock options to officers, directors, employees and consultants of the Company. Option grants expire in ten years and generally become exercisable in increments over a period of five years from the date of grant. Options may be granted with different vesting terms from time to time.

Under the Company's 1988 Stock Option Plan ("1988 Plan"), the Company was authorized to grant stock options for up to 1,000,000 shares with terms similar to those of the 1995 Plan. The 1988 Plan was terminated subsequent to the establishment of the 1995 Plan. Options that are not exercised which were outstanding under the 1988 Plan are reserved for future issuance under the 1995 Plan.

In September 1995, the Company established the 1995 Non-Employee Directors' Stock Option Plan (the "Directors' Plan"). Under the Directors' Plan, the Company is authorized to grant nonqualified stock options to purchase up to 247,500 shares of common stock at the fair market value of the common shares at the date of grant. Options granted under the Directors' Plan vest and become exercisable in three equal annual installments commencing one year from the date of the grant.

As permitted by Statement of Financial Accounting Standards No. 123 (SFAS 123), "Accounting for Stock-Based Compensation," the Company applies APB Opinion 25 and related Interpretations in accounting for its stock option plans and, accordingly, recognizes no compensation expense for stock option grants with an exercise price equal to the fair market value of the shares at the date of grant. If the Company had elected to recognize compensation cost based on the fair value of the

options granted at grant date as prescribed by SFAS 123, net income and earnings per share would have been reduced to the pro forma amounts indicated in the table below (in thousands, except per share amounts):

	1998	1997	1996
Net income as reported	$ 6,781	$ 5,302	$ 2,252
Pro forma	$ 5,939	$ 4,887	$ 1,901
Basic net income per share as reported	$ 0.72	$ 0.58	$ 0.26
Pro forma	$ 0.66	$ 0.53	$ 0.22
Diluted net income per share as reported	$ 0.70	$ 0.55	$ 0.24
Pro forma	$ 0.64	$ 0.51	$ 0.20

The pro forma net income and net income per share disclosed above is not likely to be representative of the effects on net income and net income per share on a pro forma basis in future years, due to subsequent years including additional grants and years of vesting.

The fair value of each option grant is estimated on the date of grant using the Black-Scholes option-pricing model with the following assumptions:

Expected dividend yield	0%
Expected stock price volatility	50.68-61.7%
Risk-free interest rate	5.38%- 7.56%
Expected life of options	3-5 years

Stock activity under the 1988 and 1995 Stock Option Plans and the Directors' Plan was as follows:

	Shares Available for Future Grant	Options Outstanding	Weighted Average Exercise Price
Balance December 31, 1995	891,412	1,011,339	3.39
Granted	(74,000)	74,000	10.62
Exercised	--	(112,864)	2.41
Cancelled	40,647	(40,647)	3.66
Balance December 31, 1996	858,059	931,828	4.14
Granted	(323,250)	323,250	14.68
Exercised	--	(295,554)	2.94
Cancelled	165,790	(165,790)	7.55
Balance December 31, 1997	700,599	793,734	8.08

Granted	(562,700)	562,700	17.16
Exercised	--	(111,666)	4.67
Cancelled	127,611	(127,611)	10.63
Balance December 31, 1998	265,510	1,117,157	12.68

Note 5. Stockholders' Equity (Continued)

<TABLE>
The following table summarizes information concerning currently outstanding and exercisable options at December 31, 1998:

<CAPTION>

Options Outstanding				Options Exercisable	
Range of Exercise Price	Number Outstanding	Weighted Average Remaining Contractual Life	Weighted Average Exercise Price	Number Exercisable at 12/31/98	Weighted Average Exercise Price
<S>	<C>	<C>	<C>	<C>	<C>
$1.73	57,420	2.8	$ 1.73	57,420	$ 1.73
$3.00	89,106	5.7	$ 3.00	74,569	$ 3.00
$5.25	188,081	6.7	$ 5.25	155,875	$ 5.25
$8.00 - 12.00	31,850	7.6	$ 8.13	11,737	$ 8.19
$13.38 - 19.50	750,700	9.3	$ 16.73	38,050	$ 15.54
$1.73 - $19.50	1,117,157	8.2	$ 12.68	337,651	$ 5.42

</TABLE>

Deferred Compensation

For options granted in September 1995, the Company recognized $578,000 as deferred compensation for the excess of the deemed value for accounting purposes of the common stock issuable on exercise of such options over the aggregate exercise price of such options. The deferred compensation expense is being amortized ratably over the vesting period of the options. Additionally, $131,000 of unvested deferred compensation was reversed in 1997 due to employee termination.

During 1998 the Company granted 42,500 shares of restricted stock to certain employees. These restricted shares vest in quarterly increments from the date of grant over two years. The Company recognized $782,000 of deferred compensation for the total value of these shares on their respective dates of grant. The deferred compensation expense is being recognized ratably over the two-year vesting period.

Employee Stock Purchase Plan

Under the Employee Stock Purchase Plan (the "Purchase Plan") 200,000 shares of common stock have been authorized for issuance. Shares may be purchased under the Purchase Plan at 85% of the lesser of the fair market value of the common stock on the grant or purchase date. As of December 31, 1998, 113,784 shares remained available for purchase.

Note 6. Income Taxes

The components of the provisions (benefits) for income taxes consist of the following:

	Years ended December 31,		
	1998	1997	1996
	(In thousands)		
Current:			
Federal	$ 2,671	$ 1,227	$ 524
State	756	350	340

Foreign	581	248	65
	$ 4,008	$ 1,825	$ 929
Deferred:			
Federal	$ 401	$ 969	$(1,645)
State	(164)	380	(410)
Foreign	--	--	--
	$ 237	$ 1,349	$(2,055)
	$ 4,245	$ 3,174	$(1,126)

<TABLE>

The provisions (benefits) for income taxes differ from the amounts computed by applying the statutory federal income tax rate to income before income taxes. The source and tax effects of the differences are as follows:

<CAPTION>

	Years ended December 31,		
	1998	1997	1996
		(In thousands)	
<S>	<C>	<C>	<C>
Income before provisions (benefits) for income taxes	$ 11,026	$ 8,476	$ 1,126
Income tax at statutory federal rate (35%)	$ 3,859	2,967	$ 394
State income tax, net of federal benefit	391	360	(46)
Net operating loss carry forwards	--	--	(1,748)
Foreign income taxes	--	--	65
Foreign losses not currently benefitted	90	152	44
Change in valuation allowance	--	--	(1,333)
Foreign sales corp	(173)	(168)	(136)
Charge for acquired in-process research and development	--	--	1,623
Other	78	(137)	11
	$ 4,245	$ 3,174	$ (1,126)

</TABLE>

Foreign pretax income was $1,470,000, $360,000 and $72,000 in 1998, 1997 and 1996, respectively.

Note 6. Income Taxes (Continued)

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting and the amount used for income tax purposes.

	Year ended December 31,	
	1998	1997
	(In thousands)	
Deferred tax assets:		
Research and development credit carryforwards	$ --	$ 660
Non-deductible reserves	657	356
Warranty and accrued expenses	589	568
Net undistributed profits of foreign subsidiaries	141	182
Foreign loss carryforwards	530	440
Other	243	101
Valuation allowance	(530)	(440)
Total deferred tax assets	$ 1,630	$ 1,867

The net valuation allowance decreased by $3,600,000 for the year ended December 31, 1996.

As of December 31, 1998, the Company has fully utilized federal research and development tax credit carryforwards.

Note 7. Industry Segment, Geographic and Customer Information

The Company operates in a single industry segment; the design, development, manufacture, sale and service of bioanalytical measurement systems for life sciences applications.

<TABLE>

Foreign operations of European subsidiaries consist of sales, service and distribution. Intercompany transfers between geographic areas are accounted for at prices that approximate arm's-length transactions. Summarized data for the Company's domestic and international operations are as follows:

<CAPTION>

	United States	Europe	Adjustments and Eliminations	Totals
		(In thousands)		
<S>	<C>	<C>	<C>	<C>
Year Ended December 31, 1998				
Revenues	43,564	10,540	(6,306)	47,798
Income from operations	7,965	1,429	48	9,442
Identifiable assets	53,187	5,567	(4,349)	54,405
Year Ended December 31, 1997				
Revenues	35,640	6,752	(4,106)	38,286
Income from operations	7,047	374	(165)	7,256
Identifiable assets	42,939	4,318	(4,466)	42,791
Year Ended December 31, 1996				
Revenues	29,102	4,494	(2,670)	30,926
Income from operations	(38)	56	29	47
Identifiable assets	37,291	2,359	(2,817)	36,833

</TABLE>

Note 7. Industry Segment, Geographic and Customer Information (Continued)

Consolidated revenue from the Company's product lines was as follows:

	Years ended December 31,		
	1998	1997	1996
Maxline	$25,028	$21,108	$16,571
Cell Analysis	16,498	12,790	9,572
Threshold	6,272	4,388	4,783
Total Revenue	$47,798	$38,286	$30,926

Sources of consolidated revenue from significant geographic regions were as follows:

	Years ended December 31,		
	1998	1997	1996
North America	$29,363	$24,671	$18,942
Europe	13,821	9,206	7,888
Rest of World	4,614	4,409	4,096
Total Revenue	$47,798	$38,286	$30,926

Note 8. Comparative Quarterly Financial Data (unaudited)

<TABLE>

Summarized quarterly financial data is as follows:

<CAPTION>

	First	Second	Third	Fourth
	(In thousands, except per share amounts)			
Fiscal 1998				
<S>	<C>	<C>	<C>	<C>
Revenues	$10,346	$11,867	$11,901	$13,684

Gross margin	6,633	7,357	7,477	8,615
Net income	1,414	1,898	1,355	2,114
Basic net income per share	0.15	0.20	0.14	0.22
Diluted net income per share	$ 0.15	$ 0.20	$ 0.14	$ 0.22
Fiscal 1997				
Revenues	$ 8,306	$ 9,818	$ 9,527	$10,635
Gross margin	5,115	5,943	6,046	6,756
Net income	1,027	1,315	1,370	1,590
Basic net income per share	0.11	0.14	0.15	0.17
Diluted net income per share	$ 0.11	$ 0.14	$ 0.14	$ 0.16

SCHEDULE II

MOLECULAR DEVICES CORPORATION
VALUATION AND QUALIFYING ACCOUNTS
(In thousands)

Description	Balance at Beginning of Period	Charged to Costs	Deductions	Balance at End of Period
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Balance for the year ended December 31, 1996:				
Allowance for doubtful accounts receivable	168	35	(7)	196
Balance for the year ended December 31, 1997:				
Allowance for doubtful accounts receivable	196	--	(16)	180
Balance for the year ended December 31, 1998:				
Allowance for doubtful accounts receivable	180	155	(10)	325

Exhibit 23.1

Consent of Ernst & Young LLP, Independent Auditors

We consent to the incorporation by reference in the Registration Statement (Form S-8 No. 333-4318) pertaining to the 1988 Stock Option Plan, the 1995 Stock Option Plan, the 1995 Non-Employee Directors' Stock Option Plan, and the 1995 Employee Stock Purchase Plan of Molecular Devices Corporation of our report dated January 18, 1999, with respect to the consolidated financial statements and schedule of Molecular Devices Corporation included in the Annual Report (Form 10-K) for the year ended December 31, 1998.

ERNST & YOUNG LLP

Palo Alto, CA
March 26, 1999

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