

SECURITIES AND EXCHANGE COMMISSION

FORM 8-K

Current report filing

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FILER

HUMAN GENOME SCIENCES INC

CIK: **901219** | IRS No.: **223178468** | State of Incorpor.: **DE** | Fiscal Year End: **1231**
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SIC: **2836** Biological products, (no diagnostic substances)

Mailing Address

*14200 SHADY GROVE ROAD
ROCKVILLE MD 20850*

Business Address

*14200 SHADY GROVE ROAD
ROCKVILLE MD 20850-3338
3013098504*

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 OR 15(d) of The Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): November 2, 2011

HUMAN GENOME SCIENCES, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction
of incorporation)

001-14169

(Commission File Number)

22-3178468

(IRS Employer Identification No.)

**14200 Shady Grove Road,
Rockville, Maryland**

(Address of principal executive offices)

20850-7464

(Zip Code)

Registrant's telephone number, including area code: **(301) 309-8504**

(Former name or former address, if changed since last report.)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
 - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
 - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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Item 1.01. Entry into a Material Definitive Agreement.

On November 2, 2011, Human Genome Sciences, Inc., a Delaware corporation (the “Company”), entered into an underwriting agreement (the “Underwriting Agreement”) with Citigroup Global Markets, Inc., as underwriter (the “Underwriter”), pursuant to which the Company agreed to sell, and the Underwriters agreed to purchase, upon the terms and subject to the conditions set forth therein, \$430 million aggregate principal amount of 3.00% Convertible Senior Notes due 2018 (the “Notes”), or \$494.5 million aggregate principal amount if the Underwriter exercised in full its option to purchase additional Notes. On November 2, 2011, the Underwriter exercised its option in full to purchase \$64.5 million in principal amount of additional Notes.

On November 7, 2011, the Company expects to complete the public offering of \$494.5 million aggregate principal amount of Notes. The Notes will be issued pursuant to the Senior Indenture dated November 7, 2011 (the “Base Indenture”), as supplemented by the First Supplemental Indenture dated November 7, 2011 (the “Supplemental Indenture,” and the Base Indenture as supplemented by the Supplemental Indenture, the “Indenture”), between the Company and The Bank of New York Mellon Trust Company, N.A., as trustee. The Notes will be senior unsecured obligations of the Company, pay interest semi-annually on May 15 and November 15 at a rate of 3.00% per year, and will mature on November 15, 2018. Prior to August 15, 2018, the Notes will be convertible only upon specified events and during specified periods and, thereafter, at any time. The Notes are initially convertible at a conversion rate of 75.0469 shares of the Company’s common stock (the “Common Stock”) per \$1,000 principal amount of Notes, which is equivalent to an initial conversion price of approximately \$13.33 per share, representing a 30% conversion premium based on the closing price of \$10.25 per share of the Common Stock on November 1, 2011. The conversion rate is subject to adjustment upon the occurrence of certain events. Upon conversion, the Company will pay or deliver, as the case may be, cash, shares of its Common Stock or a combination of cash and shares of its Common Stock, at the Company’s election.

If the Company undergoes a “fundamental change” (as defined in the Indenture), holders will, subject to certain conditions, have the option to require the Company to purchase their Notes for cash at a price equal to 100% of the principal amount of the Notes to be purchased, plus accrued and unpaid interest, if any, up to, but excluding, the fundamental change purchase date. In addition, following certain fundamental changes, the Company will increase the conversion rate for a holder who converts its Notes in connection with that fundamental change.

The occurrence of an Event of Default (as defined in the Indenture) may lead to the outstanding principal and unpaid interest of the Notes being immediately due and payable. The Indenture provides that an Event of Default will occur if:

the Company fails to pay the principal of any Note when due and payable at its stated maturity, upon any required repurchase, upon declaration of acceleration or otherwise;

the Company fails to pay the interest on any Note when due and payable and such failure continues for a period of 30 days;

the Company fails to convert any Note in accordance with the Indenture upon exercise of a holder’s conversion right and such failure continues for five days;

the Company fails to give a fundamental change notice as set forth in the Indenture, or notice of a specified corporate event as set forth in the Indenture, and such failure continues for 30 days;

the Company fails to comply with its obligations under the Indenture with respect to transactions involving the Company’s merger, consolidation, or sale of assets;

the Company fails to comply with any other agreement contained in the Notes or the Indenture, and such failure continues for 60 days after notice is given in accordance with the indenture;

any indebtedness for money borrowed by the Company or one of its subsidiaries in an aggregate outstanding principal amount in excess of \$25.0 million is not paid at final maturity or upon acceleration and such indebtedness is not discharged, or such acceleration is not cured or rescinded, within 30 days after notice is given in accordance with the Indenture;

the failure by the Company or any of its subsidiaries to pay final judgments entered by a court or courts of competent jurisdiction aggregating in excess of \$25.0 million, which judgments are not paid, discharged or stayed, for a period of 60 days or more; and

certain events of bankruptcy, insolvency or reorganization with respect to the Company or any of its subsidiaries that is a “significant subsidiary” (as defined in Regulation S-X under the Securities and Exchange Act of 1934, as amended) or any group of its subsidiaries that in the aggregate would constitute a “significant subsidiary.”

The summary of each of the Underwriting Agreement, the Base Indenture, the Supplemental Indenture, and the Notes is qualified in its entirety by reference to the text of the documents, which are filed as Exhibits 1.1, 4.1, 4.2 and 4.3 to this Current Report and are incorporated herein by reference.

The offering was made pursuant to an existing and effective shelf registration statement filed on Form S-3, as amended (File No. 333-162731) with the Securities and Exchange Commission (the “SEC”), as supplemented by a preliminary prospectus supplement filed with the SEC on November 2, 2011 and a final prospectus supplement filed with the SEC on November 4, 2011 pursuant to Rule 424(b) under the Securities Act of 1933, as amended (together, the “Registration Statement”).

The net proceeds from the offering will be approximately \$480.4 million after deducting estimated offering expenses payable by the Company. The Company intends to use the net proceeds from the offering for general corporate purposes, which may include repurchases of the Company’s outstanding 2 1/4% Convertible Subordinated Notes due 2012 before their scheduled maturity date on August 15, 2012, or repayment of the 2012 Notes at maturity, unless they are converted into the Company’s common stock. In addition, the Company will use a portion of the net proceeds from the issuance of the Notes to fund the cost of the capped call transactions described below in Item 8.01.

Item 2.03. Creation of a Direct Financial Obligation or an Obligation under an Off-Balance Sheet Arrangement of a Registrant.

The information included in Item 1.01 above is incorporated by reference into this Item 2.03.

Item 8.01. Other Events.

As of November 2, 2011, the Company and certain counterparties entered into capped call transactions (the “Capped Call Transactions”), which will be effective on November 7, 2011, initially in connection with the issuance of the \$430 million principal amount of Notes and later in connection with the issuance of the \$64.5 million principal amount of additional Notes. The Capped Call Transactions have an initial strike price equal to the initial conversion price of the Notes and a cap price initially equal to \$18.45, or approximately 180% of the last reported sale price of the Common Stock on the Nasdaq Global Select Market on November 1, 2011 (in each case subject to certain anti-dilutive adjustments similar to those applicable to the Notes). The Capped Call Transactions initially are intended to reduce the potential dilution to the Company’s Common Stock and/or offset any potential cash payments in excess of the principal amount of the converted Notes, as the case may be, in connection with conversion of the Notes, up to a stock price of \$18.45 per share, which is the initial cap on the counterparties’ share delivery and/or cash payment obligation under the Capped Call Transactions. If, however, the market value per share of the Common Stock, as measured under the terms of the Capped Call Transactions, exceeds the applicable cap price of the Capped Call Transactions, the number of shares of Common Stock and/or the amount of cash the Company expects to receive upon exercise of the Capped Call Transactions will be limited. The Company will pay approximately \$50.9 million from the net proceeds from the issuance and sale of the Notes to purchase the Capped Call Transactions.

In connection with the issuance and sale of the Notes, as described in Item 1.01 of this Current Report on Form 8-K, the following exhibits are filed with, or incorporated by reference into, this Current Report on Form 8-K and are incorporated by reference into the Registration Statement: (i) the Underwriting Agreement (Exhibit 1.1 to this Current Report on Form 8-K), (ii) the Base Indenture and the First Supplemental Indenture (Exhibits 4.1 and 4.2 to this Current Report on Form 8-K), (iii) the Form of Notes, (iv) the opinion of counsel with respect to the validity of the Notes being sold in the offering (Exhibit 5.1 to this Current Report on Form 8-K) and (v) certain information relating to Part II, Item 14 “Other Expenses of Issuance and Distribution” of the Registration Statement (Exhibit 99.1 to this Current Report on Form 8-K).

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

- 1.1 Underwriting Agreement, dated as of November 2, 2011, by and between the Company and the Underwriter.
 - 4.1 Senior Indenture dated November 7, 2011.
 - 4.2 First Supplemental Indenture dated November 7, 2011.
 - 4.3 Form of 3.00% Convertible Senior Note due 2018 (included in Exhibit 4.2).
 - 5.1 Opinion of DLA Piper LLP (US) dated November 7, 2011.
 - 23.1 Consent of DLA Piper LLP (US) (included in Exhibit 5.1).
 - 99.1 Information relating to Part II, Item 14 “Other Expenses of Issuance and Distribution” of the Registration Statement (Registration No. 333-162731).
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SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

HUMAN GENOME SCIENCES, INC.

By: /s/ James H. Davis, Ph.D.

Name: James H. Davis, Ph.D.

Title: Executive Vice President, General Counsel
and Secretary

Date: November 7, 2011

INDEX TO EXHIBITS

Exhibit No	Description
1.1	Underwriting Agreement, dated as of November 2, 2011, by and between the Company and the Underwriter.
4.1	Senior Indenture dated November 7, 2011.
4.2	First Supplemental Indenture dated November 7, 2011.
4.3	Form of 3.00% Convertible Senior Note due 2018 (included in Exhibit 4.2).
5.1	Opinion of DLA Piper LLP (US) dated November 7, 2011.
23.1	Consent of DLA Piper LLP (US) (included in Exhibit 5.1).
99.1	Information relating to Part II, Item 14 “Other Expenses of Issuance and Distribution” of the Registration Statement (Registration No. 333-162731).

Human Genome Sciences, Inc.
3.00% Convertible Senior Notes due 2018
Underwriting Agreement

November 2, 2011

Citigroup Global Markets Inc.

388 Greenwich Street
New York, NY 10013

Ladies and Gentlemen:

Human Genome Sciences, Inc., a Delaware corporation (the “Company”), proposes, subject to the terms and conditions stated herein, to issue and sell to the Citigroup Global Markets Inc. (the “Underwriter”) an aggregate of \$430,000,000 principal amount (the “Firm Securities”) of its 3.00% Convertible Senior Notes due 2018 (the “Notes”), which are convertible into shares of the Company’s common stock, par value \$0.01 per share (“Common Stock”), and at the election of the Underwriter, up to an aggregate of \$64,500,000 in additional aggregate principal amount of Notes (the “Optional Securities”)(the Firm Securities and the Optional Securities which the Underwriter elects to purchase pursuant to Section 2 hereof are herein collectively called the “Securities”). The Securities will be issued pursuant to an indenture, dated as of November 7, 2011, by and between the Company and The Bank of New York Mellon Trust Company, N.A., as trustee (the “Trustee”), as supplemented by a Supplemental Indenture, dated as of November 7, 2011 (collectively, the “Indenture”).

This Agreement, the Securities and the Indenture are collectively referred to herein as the “Note Documents.”

1. The Company represents and warrants to, and agrees with, the Underwriter that:

(a) An “automatic shelf registration statement” as defined under Rule 405 under the Securities Act of 1933, as amended (the “Securities Act”) on Form S-3 (File No. 333-162731) in respect of the Securities and shares of Common Stock issuable upon conversion thereof has been filed with the Securities and Exchange Commission (the “Commission”) not earlier than three years prior to the date hereof; such registration statement, and any post-effective amendment thereto, became effective on filing; and no stop order suspending the effectiveness of such registration statement or any part thereof has been issued and no proceeding for that purpose has been initiated or threatened by the Commission, and no notice of objection of the Commission to the use of such registration statement or any post-effective amendment thereto pursuant to Rule 401(g)(2) under the Securities Act has been received by the Company (the base prospectus filed as part of such registration statement, in the form in which it has most recently been filed with the Commission on or prior to the date of this Agreement, is hereinafter called the “Basic Prospectus”; any preliminary prospectus (including any preliminary prospectus supplement) relating to the Securities filed with the Commission pursuant to Rule 424(b) under the Securities Act is hereinafter called a “Preliminary Prospectus”; the various parts of such registration statement, including all exhibits thereto but excluding Form T-1 and including any prospectus supplement relating to the Securities that is filed with the Commission and deemed by virtue of Rule 430B under the Securities Act to be part of such registration statement, each as amended at the time such part of the registration statement became effective, are hereinafter collectively called the “Registration Statement”; the Basic Prospectus, as amended and supplemented immediately prior to the Applicable Time (as defined in Section 1(c) hereof), is hereinafter called the “Pricing Prospectus”; the form of the final prospectus relating to the Securities filed with the Commission pursuant to Rule 424(b) under the Securities Act in accordance with Section 5(a) hereof is hereinafter called the “Prospectus”; any reference herein to the Basic Prospectus, the Pricing Prospectus, any Preliminary Prospectus or the Prospectus shall be deemed to refer to and include the documents incorporated by reference therein pursuant to Item 12 of Form S-3 under the Securities Act, as of the date of such prospectus; any reference to any amendment or supplement to the Basic Prospectus, any Preliminary Prospectus or the Prospectus shall be deemed to refer to and include any post-effective amendment to the Registration Statement, any prospectus supplement relating to the Securities filed with the Commission pursuant to Rule 424(b) under the Securities Act and any documents filed under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and incorporated therein, in each case after the date of the Basic Prospectus, such Preliminary Prospectus, or the Prospectus, as the case may be; any reference to any amendment to the Registration Statement shall be deemed to refer to and include any annual report of the Company filed pursuant to Section 13(a) or 15(d) of the Exchange Act after the effective date of the Registration Statement that is incorporated by reference in the Registration Statement; and any “issuer free writing prospectus” as defined in Rule 433 under the Securities Act relating to the Securities is hereinafter called an “Issuer Free Writing Prospectus”).

(b) No order preventing or suspending the use of the Basic Prospectus, any Preliminary Prospectus or any Issuer Free Writing Prospectus has been issued by the Commission, and the Basic Prospectus and each Preliminary Prospectus, at the time of filing thereof, conformed in all material respects to the requirements of the Securities Act and the Trust Indenture Act of 1939, as amended (the “Trust Indenture Act”) and the rules and regulations of the Commission thereunder, and did not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided, however, that this representation and warranty shall not apply to any statements or omissions made in reliance upon and in conformity with information furnished in writing to the Company by the Underwriter expressly for use therein.

(c) For the purposes of this Agreement, the “Applicable Time” is 9:55 a.m. (Eastern time) on the date of this Agreement; the Pricing Prospectus as supplemented by the final term sheet in the form attached as Schedule III hereto (the “Final Term Sheet”), prepared and filed pursuant to Section 5(a) hereof, taken together (collectively, the “Pricing Disclosure Package”) as of the Applicable Time, did not include any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; and each Issuer Free Writing Prospectus listed on Schedule II(a) hereto does not conflict with the information contained in the Registration Statement, the Pricing Prospectus or the Prospectus and each such Issuer Free Writing Prospectus, as supplemented by and taken together with the Pricing Disclosure Package as of the Applicable Time, did not include any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided, however, that this representation and warranty shall not apply to statements or omissions made in the Pricing Disclosure Package or any listed Issuer Free Writing Prospectus in reliance upon and in conformity with information furnished in writing to the Company by the Underwriter expressly for use therein.

(d) A (i) At the time of filing the Registration Statement and (ii) at the time of the most recent amendment thereto for the purposes of complying with Section 10(a)(3) of the Securities Act (whether such amendment was by post-effective amendment, incorporated report filed pursuant to Section 13 or 15(d) of the Exchange Act or form of prospectus), the Company was a “well-known seasoned issuer” as defined in Rule 405 under the Securities Act; and (B) at the earliest time after the filing of the Registration Statement that the Company or another offering participant made a bona fide offer (within the meaning of Rule 164(h)(2) under the Securities Act) of the Securities, the Company was not an “ineligible issuer” as defined in Rule 405 under the Securities Act;

(e) The documents incorporated by reference in the Registration Statement, the Pricing Disclosure Package or the Prospectus, when such incorporated documents became effective or were filed with the Commission, as the case may be, conformed in all material respects to the requirements of the Securities Act or the Exchange Act, as applicable, and the rules and regulations thereunder, and none of such incorporated documents contained an untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading; and any further documents so filed and incorporated by reference in the Registration Statement, the Pricing Disclosure Package, the Prospectus or any further amendment or supplement thereto, when such documents become effective or are filed with the Commission, as the case may be, will conform in all material respects to the requirements of the Securities Act or the Exchange Act, as applicable, and the rules and regulations of the Commission thereunder and will not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading; and no such documents were filed with the Commission since the Commission’s close of business on the business day immediately prior to the date of this Agreement and prior to the execution of this Agreement, except as set forth on Schedule II(b) hereto.

(f) The Registration Statement and Pricing Prospectus conform, and the Pricing Disclosure Package and the Prospectus and any further amendments or supplements to the Registration Statement and the Prospectus will conform, in all material respects to the requirements of the Securities Act and the Trust Indenture Act, as applicable and the rules and regulations of the Commission thereunder and do not and will not, as of the applicable effective date and each Time of Delivery (as defined below) as to each part of the Registration Statement, as of the Applicable Time in the case of the Pricing Disclosure Package, as of its date and each Time of Delivery, in the case of the Prospectus and as of the applicable filing date in the case of any amendment or supplement thereto, contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading; provided, however, that this representation and warranty shall not apply to any statements or omissions made in reliance upon and in conformity with information furnished in writing to the Company by the Underwriter expressly for use therein.

(g) Neither the Company nor any of its subsidiaries has sustained since the date of the latest audited financial statements included or incorporated by reference in the Pricing Prospectus, any material loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree, otherwise than as set forth or contemplated in the Pricing Disclosure Package; and since the respective dates as of which information is given in the Registration Statement and the Pricing Disclosure Package, there has not been (w) any material change in the capital stock of the Company or any of its subsidiaries (other than issuances or other transfers of capital stock in the ordinary course of business pursuant to the Company's employee benefit plans or stock repurchases made in connection with stock repurchase plans), (x) any material increase in the long-term debt of the Company and its subsidiaries, (y) since the date of the latest audited financial statements included in the Pricing Disclosure Package, there has been no material adverse change, nor any development or event involving a prospective material adverse change, in the condition (financial or other), business, business prospects, properties or results of operations of the Company or (z) any dividend or distribution of any kind declared, paid or made by the Company on any class of its capital stock.

(h) The Company has been duly incorporated and is existing as a corporation in good standing under the laws of the State of Delaware, with the requisite corporate power and authority to own, lease and operate its properties and conduct its business as described in the Pricing Disclosure Package and the Prospectus; and the Company is duly qualified to do business as a foreign corporation in good standing in all other jurisdictions in which its ownership or lease of property or the conduct of its business requires such qualification, except where the failure to so qualify or to be in good standing would not or could not reasonably be expected to have a material adverse effect on the condition (financial or otherwise), business, business prospects, properties or results of operations of the Company and its subsidiaries, taken as a whole (a "Material Adverse Effect").

(i) Each subsidiary of the Company has been duly organized and is validly existing as a corporation or other entity in good standing under the laws of the jurisdiction of its incorporation or organization, has corporate or other power and authority to own, lease and operate its properties and to conduct its business as described in the Pricing Disclosure Package, and the Prospectus and is duly qualified as a foreign corporation to transact business and is in good standing in each jurisdiction in which such qualification is required, whether by reason of the ownership or leasing of property or the conduct of business, except where the failure to so qualify or to be in good standing would not or could not reasonably be expected to have a Material Adverse Effect.

(j) This Agreement has been duly authorized, executed and delivered by the Company.

(k) The Company has an authorized capitalization as set forth in the Pricing Disclosure Package and the Prospectus and all of the issued shares of capital stock of the Company have been duly authorized and validly issued and are fully paid and non-assessable; the shares of Common Stock initially issuable upon conversion of the Securities have been duly and validly authorized and reserved for issuance and, when issued and delivered in accordance with the provisions of the Securities and the Indenture referred to below, will be duly and validly issued, fully paid and non-assessable and will conform to the description of the Common Stock contained in the Pricing Disclosure Package and the Prospectus; and all of the issued shares of capital stock of each subsidiary of the Company have been duly authorized and validly issued, are fully paid and non-assessable and are owned directly or indirectly by the Company, free and clear of all liens, encumbrances, equities or claims (“Liens”). None of the shares of capital stock of the Company or its subsidiaries were issued in violation of preemptive or other similar rights of any securityholder. The stockholders of the Company have no preemptive rights with respect to the Securities or the shares of Common Stock initially issuable upon conversion of the Securities.

(l) The Company (i) has the requisite corporate power and authority to execute and deliver this Agreement and the other Note Documents to which it is a party and to perform its obligations hereunder and thereunder; (ii) has full corporate power and authority to authorize, issue and sell the Securities and the shares of Common Stock initially issuable upon conversion of the Securities as contemplated by this Agreement and the Indenture; and (iii) has duly taken all necessary corporate action to authorize the issuance, offering and sale of the Securities and the shares of Common Stock initially issuable upon conversion of the Securities, the execution, delivery and performance of this Agreement and the other Note Documents to which it is a party and the compliance with the provisions hereof and thereof and the consummation of the transactions contemplated hereby and thereby.

(m) The Securities have been duly authorized and, when issued and delivered by the Company pursuant to this Agreement and authenticated in the manner provided in the Indenture and delivered against payment of the purchase price therefor and in accordance with this Agreement, will have been duly executed, authenticated, issued and delivered and will constitute valid and legally binding obligations of the Company, enforceable against the Company in accordance with their terms and entitled to the benefits provided by the Indenture; the Indenture has been duly authorized and duly qualified under the Trust Indenture Act and, when executed and delivered by the Company and the Trustee, will constitute a valid and legally binding instrument, enforceable against the Company in accordance with its terms, subject, in the case of each of the Securities and the Indenture, as to enforcement, to bankruptcy, insolvency, reorganization and other laws of general applicability relating to or affecting creditors' rights and to general equity principles; the Securities and the Indenture will conform in all material respects to the descriptions thereof in the Pricing Disclosure Package and the Prospectus; and the Indenture will conform in all material respects to the requirements of the Trust Indenture Act and the regulations of the Commission applicable to an indenture that is qualified thereunder;

(n) The statements set forth in the Pricing Disclosure Package and Prospectus, under the captions "Description of Notes" and "Description of Capital Stock", under the caption "Material United States Federal Income Tax Considerations" and under the caption "Underwriting", insofar as they are descriptions of the Securities, the Common Stock, contracts, agreements or other legal documents or describe the applicable statutes, rules and regulations, constitute an accurate summary of the matters set forth therein in all material respects.

(o) The Company is not and, after giving effect to the offering and sale of the Securities and the application of the proceeds thereof, will not be an "investment company", as such term is defined in the Investment Company Act of 1940, as amended (the "Investment Company Act").

(p) No consent, approval, authorization, or order of, or filing with, any governmental agency or body or any court is required in connection with the offering and sale of the Securities, for the execution, delivery and performance by the Company of the Note Documents or in connection with the transactions contemplated by this Agreement or the Indenture, except such as may be required under the blue sky laws of any jurisdiction in connection with the transactions contemplated by this Agreement and the Indenture.

(q) (i) The offering, issue and sale of the Securities and the compliance by the Company with all of the provisions of the Note Documents to which it is a party and the consummation of the transactions therein contemplated will not, and (ii) compliance with the terms and provisions hereof will not result in a breach of, violation of or imposition of any Lien upon any material property or assets of the Company or any of its subsidiaries pursuant to, any of the terms and provisions of, or constitute a default under, any statute, any rule, regulation or order of any governmental agency or body or any court or other authority, domestic or foreign, having jurisdiction over the Company, or any of its subsidiaries, or any of their properties, or any material agreement or instrument to which the Company or any of its subsidiaries is a party or by which the Company or any of its subsidiaries is bound or to which any of the material properties of the Company or any of its subsidiaries is subject, or the certificate of incorporation or by-laws of the Company or any of its subsidiaries.

(r) The financial statements and schedules incorporated by reference in the Pricing Disclosure Package and the Prospectus, and the Registration Statement present fairly the financial position of the Company and its subsidiaries as of the dates shown and their results of operations and cash flows for the periods shown, comply as to form in all material respects with the applicable accounting requirements of the Securities Act and such financial statements have been prepared in conformity with generally accepted accounting principles in the United States applied on a consistent basis (“U.S. GAAP”).

(s) Except as disclosed in the Pricing Disclosure Package and the Prospectus, there are no pending actions, suits or proceedings against or affecting the Company or any of its properties that, if determined adversely to the Company, would individually or in the aggregate, have a Material Adverse Effect or would materially and adversely affect the ability of the Company to perform its obligations under this Agreement; and no such actions, suits or proceedings are, to the Company’s knowledge, threatened or contemplated.

(t) No labor disputes with the employees of the Company or any of its subsidiaries exist or, to the knowledge of the Company, are imminent that would have a Material Adverse Effect.

(u) Neither the Company nor any subsidiary is in violation or default of (i) any provision of its certificate of incorporation or by-laws, (ii) the terms of any indenture, contract, lease, mortgage, deed of trust, note agreement, loan agreement or other agreement, obligation, condition, covenant or instrument to which it is a party or bound or to which its property is subject or (iii) any statute, law, rule, regulation, judgment, order or decree of any court, regulatory body, administrative agency, governmental body, arbitrator or other authority applicable to or having jurisdiction over the Company or such subsidiary or any of its properties, as applicable, which violation or default would, in the case of clauses (ii) and (iii) above, either individually or in the aggregate with all other violations and defaults referred to in this paragraph, reasonably be expected to result in a Material Adverse Effect.

(v) The clinical, pre-clinical and other studies and tests conducted by or on behalf of or sponsored by the Company that are described in the Pricing Disclosure Package and the Prospectus or the results of which are referred to in the Pricing Disclosure Package and the Prospectus, including, without limitation such studies and tests related to BENLYSTA®, were and, if still pending, are being conducted in accordance, in all material respects, with standard medical and scientific research procedures and all applicable federal, state, local and foreign laws, rules and regulations, including without limitation, those of the U.S. Food & Drug Administration (the “FDA”); the descriptions in the Pricing Disclosure Package and the Prospectus of the results of such studies and tests are accurate and complete in all material respects and fairly present the data derived from such studies and tests; except to the extent disclosed in the Pricing Disclosure Package and the Prospectus, the Company has operated and currently is in compliance in all material respects with all applicable rules, regulations and policies, including without limitation, those of the FDA and comparable drug regulatory agencies outside of the United States (collectively, the “Regulatory Authorities”); and except to the extent disclosed in the Pricing Disclosure Package and the Prospectus, the Company has not received any notices or other correspondence from the Regulatory Authorities or any other governmental agency requiring the termination, suspension, delay or modification of any clinical or pre-clinical study or test sponsored by the Company, that is described in the Pricing Disclosure Package and the Prospectus or the results of which are referred to in the Pricing Disclosure Package and the Prospectus.

(w) The Company and each of its subsidiaries carry, or are covered by, insurance in such amounts and covering such risks as is adequate for the conduct of their respective businesses and the value of their respective properties and as is customary for companies engaged in similar businesses in similar industries.

(x) The Company and its subsidiaries possesses adequate certificates, licenses, authorities or permits issued by appropriate governmental agencies or bodies necessary to conduct their business, as described in the Pricing Disclosure Package and Prospectus, and have not received any notice of proceedings relating to the revocation or modification of any such certificate, license, authority or permit that, if determined adversely to the Company or its subsidiaries, would individually or in the aggregate have a Material Adverse Effect.

(y) Ernst & Young LLP, independent registered public accounting firm, which has audited the consolidated financial statements of the Company and its consolidated subsidiaries, and delivered their report with respect to audited consolidated financial statements included or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus, is an independent registered public accounting firm as required by the Securities Act and the rules and regulations of the Commission thereunder.

(z) The Company and each of its subsidiaries maintains a system of internal control over financial reporting (as such term is defined in Rule 13a-15(f) under the Exchange Act) sufficient to provide reasonable assurances that (A) transactions are executed in accordance with management' s general or specific authorization; (B) transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles and to maintain accountability for assets; (C) access to assets is permitted only in accordance with management' s general or specific authorization; and (D) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences. The Company' s internal control over financial reporting is effective and the Company is not aware of any material weaknesses in its internal control over financial reporting. Since the date of the latest audited financial statements included or incorporated by reference in the Pricing Disclosure Package and the Prospectus, there has been no change in the Company' s internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, the Company' s internal control over financial reporting.

(aa) The Company maintains a system of "disclosure controls and procedures" (as such term is defined in Rule 13a-15(e) under the Exchange Act) that comply with the requirements of the Exchange Act; such disclosure controls and procedures have been designed to ensure that material information relating to the Company and its subsidiaries is made known to the Company' s principal executive officer and principal financial officer by others within those entities; and such disclosure controls and procedures are effective to perform the functions for which they were established.

(bb) The Company or any of its subsidiaries is not in violation of any statute, rule, regulation, decision or order of any governmental agency or body or any court, domestic or foreign, applicable to or having jurisdiction over the Company or such subsidiary or any of its properties, as applicable, relating to the use, disposal or release of hazardous or toxic substances or relating to the protection or restoration of the environment or human exposure to hazardous or toxic substances (collectively, “environmental laws”), does not own or operate any real property contaminated with any substance that is subject to any environmental laws at levels or in quantities that could reasonably be expected to require remediation, is not liable for any off-site disposal or contamination pursuant to any environmental laws, and is not subject to any claim relating to any environmental laws, which violation, contamination, liability or claim, in each case, is expected, individually or in the aggregate, to have a Material Adverse Effect; and the Company is not aware of any pending investigation which might lead to such a claim.

(cc) Except as disclosed in the Pricing Disclosure Package and the Prospectus, the Company and its subsidiaries own or possess, or can acquire on reasonable terms, patents, inventions, copyrights, know-how (including trade secrets and other unpatented and/or unpatentable proprietary or confidential information, systems or procedures), trademarks, service marks, trade names or other intellectual property (collectively, “Intellectual Property”) necessary to carry on the business as described in the Pricing Disclosure Package and the Prospectus. Except as disclosed in the Pricing Disclosure Package and the Prospectus, neither the Company nor any of its subsidiaries has received any notice of any claim by a third party against them alleging infringement of, interference with or any other conflict with asserted rights of others with respect to any Intellectual Property, which (if the subject of any unfavorable decision, ruling or finding), singly or in the aggregate, would result in a Material Adverse Effect.

(dd) At least three U.S. patents owned, assigned or licensed to the Company and at least 26 non-U.S. patents (including three European patents validated in 18, 20 and 24 countries respectively and a Eurasian patent validated in 9 countries) owned, assigned or licensed to the Company claim the composition, use or manufacture of BENLYSTA® (belimumab); two U.S. patents owned, assigned or licensed to the Company and no non-U.S. patents owned, assigned or licensed to the Company claim the composition, use or manufacture of raxibacumab; all such patents are being duly maintained by the Company or, to the best of the Company’s knowledge, its licensors and are in full force and effect. In addition, there are numerous other patent applications that claim the composition, use or manufacture of these products and they are being diligently prosecuted by the Company, or, to the best of the Company’s knowledge, its licensors.

(ee) Except as disclosed in the Pricing Disclosure Package and the Prospectus, the Company has good and marketable title to all material real properties and all other material properties and assets owned by it, in each case free from Liens that would materially affect the value thereof or materially interfere with the use made or to be made thereof by the Company; and except as disclosed in the Pricing Disclosure Package and the Prospectus, the Company holds any leased real or personal property under valid and enforceable leases with no exceptions that would materially interfere with the use made or to be made thereof by it.

(ff) The Company is in compliance in all material respects with the applicable provisions of the Sarbanes-Oxley Act of 2002.

(gg) There are no contracts, agreements or understandings between the Company and any person that would give rise to a valid claim against the Company or the Underwriter for a brokerage commission, finder's fee or other like payment in connection with the offering and sale of the Securities.

(hh) Neither the Company nor, to the Company's knowledge, any affiliate (within the meaning of Regulation M under the Securities Act) of the Company has taken, nor will the Company or any affiliate take, directly or indirectly, any action which is designed to or which has constituted or which would be expected to cause or result in stabilization or manipulation of the price of any security of the Company to facilitate the offering and sale of the Securities, except that no representation or warranty is made with respect to, or in connection with, any action taken by or on behalf of, the Underwriter or any of its affiliates or any of their partners, members, directors, officers, employees or agents.

(ii) The Company is in compliance in all material respects with all presently applicable provisions of the Employee Retirement Income Security Act of 1974, as amended, including the regulations and published interpretations thereunder ("ERISA"); no "reportable event" (as defined in ERISA) has occurred with respect to any "pension plan" (as defined in ERISA) for which the Company would have any liability; the Company has not incurred and does not currently expect to incur material liability under (A) Title IV of ERISA with respect to the termination of, or withdrawal from, any "pension plan" or (B) Section 412 or 4971 of the Internal Revenue Code of 1986, as amended, including the regulations and published interpretations thereunder (the "Code"); and each "pension plan" for which the Company would have any liability that is intended to be qualified under Section 401(a) of the Code is so qualified in all material respects and nothing has occurred, whether by action or by failure to act, which would cause the loss of such qualification.

(jj) The Company is subject to the reporting requirements of Section 13 or Section 15(d) of the Exchange Act. The Common Stock is registered pursuant to Section 12(b) of the Exchange Act and is listed on The NASDAQ Stock Market LLC (the "Exchange") and the Company has taken no action designed to, or likely to have the effect of, terminating the registration of the Common Stock under the Exchange Act or delisting the Common Stock from the Exchange, nor has the Company received any notification that the Commission or the Exchange is contemplating terminating such registration or listing.

(kk) The Company has no debt securities rated by any "nationally recognized statistical rating organization", as such term is defined in Section 3(a)(62) of the Exchange Act.

(ll) The Company has obtained and delivered to the Underwriter executed copies of an agreement from all persons listed in Schedule IV hereto, substantially to the effect set forth in Annex III hereof.

(mm) The Company and each of its subsidiaries have filed all federal, state, local and foreign tax returns required to be filed through the date of this Agreement or have requested extensions thereof (except where the failure to file would not, individually or in the aggregate, have a Material Adverse Effect) and have paid all taxes required to be paid thereon (except for cases in which the failure to file or pay would not have a Material Adverse Effect, or, except as currently being contested in good faith and for which reserves required by U.S. GAAP have been created in the financial statements of the Company), and no tax deficiency has been determined adversely to the Company or any of its subsidiaries which has had (nor does the Company nor any of its subsidiaries have any notice or knowledge of any tax deficiency which could reasonably be expected to be determined adversely to the Company or its subsidiaries and which could reasonably be expected to have) a Material Adverse Effect.

(nn) Neither the Company nor any of its subsidiaries or affiliates, nor any director, officer, or employee, nor, to the Company's knowledge, any agent or representative of the Company or of any of its subsidiaries or affiliates, has taken any action in violation of law in furtherance of an offer, payment, promise to pay, or authorization or approval of the payment or giving of money, property, gifts or anything else of value, directly or indirectly, to any "government official" (including any officer or employee of a government or government-owned or controlled entity or of a public international organization, or any person acting in an official capacity for or on behalf of any of the foregoing, or any political party or party official or candidate for political office) to influence official action or secure an improper advantage; and the Company and its subsidiaries and affiliates have conducted their businesses in compliance with applicable anti-corruption laws and have instituted and maintain and will continue to maintain policies and procedures designed to promote and achieve compliance with such laws and with the representation and warranty contained herein.

(oo) The operations of the Company and its subsidiaries are and have been conducted at all times in material compliance with all applicable financial recordkeeping and reporting requirements, including those of the Bank Secrecy Act, as amended by Title III of the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 (USA PATRIOT Act), and the applicable anti-money laundering statutes of jurisdictions where the Company and its subsidiaries conduct business, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any governmental agency (collectively, the "Anti-Money Laundering Laws"), and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any of its subsidiaries with respect to the Anti-Money Laundering Laws is pending or, to the best knowledge of the Company, threatened.

(pp) (i) Neither the Company nor any of its subsidiaries, nor any director, officer, or employee thereof, nor, to the Company's knowledge, any agent, affiliate or representative of the Company or any of its subsidiaries, is an individual or entity ("Person") that is, or is owned or controlled by a Person that is:

(A) the subject of any sanctions administered or enforced by the U.S. Department of Treasury's Office of Foreign Assets Control ("OFAC"), the United Nations Security Council ("UNSC"), the European Union ("EU"), Her Majesty's Treasury ("HMT"), or other relevant sanctions authority (collectively, "Sanctions"), nor

(B) located, organized or resident in a country or territory that is the subject of Sanctions (including, without limitation, Burma/Myanmar, Cuba, Iran, Libya, North Korea, Sudan and Syria).

(ii) The Company will not, directly or indirectly, use the proceeds of the offering, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other Person:

(A) to fund or facilitate any activities or business of or with any Person or in any country or territory that, at the time of such funding or facilitation, is the subject of Sanctions; or

(B) in any other manner that will result in a violation of Sanctions by any Person (including any Person participating in the offering, whether as underwriter, advisor, investor or otherwise).

(iii) For the past 5 years, the Company and its subsidiaries have not knowingly engaged in, are not now knowingly engaged in, and will not engage in, any dealings or transactions with any Person, or in any country or territory, that at the time of the dealing or transaction is or was the subject of Sanctions.

2. Subject to the terms and conditions herein set forth, (a) the Company agrees to issue and sell to the Underwriter, and the Underwriter agrees to purchase from the Company, the principal amount of Securities set forth opposite the name of the Underwriter in Schedule I hereto at a purchase price of 97.25% of the principal amount thereof, and (b) in the event and to the extent that the Underwriter shall exercise the election to purchase Optional Securities as provided below, the Company agrees to issue and sell to the Underwriter, and the Underwriter agrees to purchase from the Company, at the same purchase price set forth in clause (a) of this Section 2, that portion of the aggregate principal amount of the Optional Securities as to which such election shall have been exercised (to be adjusted by you so as to eliminate fractions of \$1,000).

The Company hereby grants to the Underwriter the right to purchase at its election up to \$64,500,000 in aggregate principal amount of Optional Securities, at the purchase price set forth in clause (a) of the first paragraph of this Section 2 for the sole purpose of covering sales of Securities in excess of the number of Firm Securities. Any such election to purchase Optional Securities may be exercised by written notice from you to the Company, given within a period of 30 calendar days after the First Time of Delivery (as defined in Section 4 hereof), setting forth the aggregate principal amount of Optional Securities to be purchased and the date on which such Optional Securities are to be delivered, as determined by you but in no event earlier than the First Time of Delivery (as defined in Section 4 hereof) or, unless you and the Company otherwise agree in writing, earlier than two or later than ten business days after the date of such notice.

3. The Underwriter proposes to offer the Securities for sale upon the terms and conditions set forth in the Pricing Disclosure Package and the Prospectus.

4. (a) The Securities to be purchased by the Underwriter hereunder will be represented by one or more definitive global Securities in book-entry form which will be deposited by or on behalf of the Company with The Depository Trust Company (“DTC”) or its designated custodian. The Company will deliver the Securities to and for the account of the Underwriter, against payment by or on behalf of the Underwriter of the purchase price therefor by wire transfer of Federal (same day) funds to the account specified by the Company to the Underwriter at least forty-eight hours in advance, by causing DTC to credit the Securities to the account of the Underwriter at DTC. The Company will cause the certificates representing the Securities to be made available to the Underwriter for checking and packaging at least twenty-four hours prior to the Time of Delivery (as defined below) with respect thereto at the office of DTC or its designated custodian (the “Designated Office”). The time and date of such delivery and payment shall be, with respect to the Firm Securities, 10:00 a.m., New York City time, on November 7, 2011, or such other time and date as the Underwriter and the Company may agree upon in writing, and, with respect to the Optional Securities, 10:00 a.m., New York City time, on the date specified by the Underwriter in the written notice given by the Underwriter of the Underwriter’s election to purchase such Optional Securities, or at such other time and date as the Underwriter and the Company may agree upon in writing. Such time and date for delivery of the Firm Securities is herein called the “First Time of Delivery”, any time and date for delivery of Optional Securities, if not the First Time of Delivery, is herein called the “Second Time of Delivery”, and each such time and date for delivery of Securities is herein called a “Time of Delivery”.

(b) The documents to be delivered at the Time of Delivery by or on behalf of the parties hereto pursuant to Section 8 hereof, including the cross-receipt for the Securities and any additional documents requested by the Underwriter pursuant to Section 8(j) hereof, will be delivered at the office of Simpson Thacher and Bartlett LLP, 425 Lexington Avenue, New York, New York, 10017 (the “Closing Location”), and the Securities will be delivered at the Designated Office, all at the Time of Delivery. A meeting will be held at the Closing Location at 3:00 p.m., New York City time, on the New York Business Day next preceding the Time of Delivery, at which meeting the final drafts of the documents to be delivered pursuant to the preceding sentence will be available for review by the parties hereto. For the purposes of this Section 4, “New York Business Day” shall mean each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions in New York City are generally authorized or obligated by law or executive order to close.

5. The Company agrees with the Underwriter:

(a) To prepare the Prospectus in a form approved by you and to file such Prospectus pursuant to Rule 424(b) under the Securities Act not later than the Commission's close of business on the second business day following the date of this Agreement or such earlier time as may be required under the Securities Act; to make no further amendment or any supplement to the Registration Statement, the Basic Prospectus, the Pricing Disclosure Package or the Prospectus prior to the last Time of Delivery which shall be disapproved by you promptly after reasonable notice thereof; to advise you, promptly after it receives notice thereof, of the time when any amendment to the Registration Statement has been filed or becomes effective or any amendment or supplement to the Prospectus has been filed and to furnish you with copies thereof; to prepare a final term sheet, containing solely a description of the Securities, in the form attached as Schedule III hereto and to file such term sheet pursuant to Rule 433(d) under the Securities Act within the time required by such Rule; to file promptly all other material required to be filed by the Company with the Commission pursuant to Rule 433(d) under the Securities Act; within the time required by such Rule, to file promptly all reports and any definitive proxy or information statements required to be filed by the Company with the Commission pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act subsequent to the date of the Prospectus and for so long as the delivery of a prospectus (or in lieu thereof, the notice referred to in Rule 173(a) under the Securities Act) is required in connection with the offering or sale of the Securities; to advise you, promptly after it receives notice thereof, of the issuance by the Commission of any stop order or of any order preventing or suspending the use of any Preliminary Prospectus or other prospectus in respect of the Securities, of any notice of objection of the Commission to the use of the Registration Statement or any post-effective amendment thereto pursuant to Rule 401(g)(2) under the Securities Act, of the suspension of the qualification of the Securities or the shares of Common Stock issuable upon conversion of the Securities for offering or sale in any jurisdiction, of the initiation or threatening of any proceeding for any such purpose, or of any request by the Commission for the amending or supplementing of the Registration Statement or the Prospectus or for additional information; and, in the event of the issuance of any stop order or of any order preventing or suspending the use of any Preliminary Prospectus or other prospectus or suspending any such qualification, to promptly use its best efforts to obtain the withdrawal of such order; and in the event of any such issuance of a notice of objection, promptly to take such steps including, without limitation, amending the Registration Statement or filing a new registration statement, at its own expense, as may be necessary to permit offers and sales of the Securities by the Underwriter (references herein to the Registration Statement shall include any such amendment or new registration statement).

(b) Promptly from time to time to take such action as you may reasonably request to qualify the Securities and the shares of Common Stock issuable upon conversion of the Securities for offering and sale under the securities laws of such jurisdictions as you may request and to comply with such laws so as to permit the continuance of sales and dealings therein in such jurisdictions for as long as may be necessary to complete the distribution of the Securities, provided that in connection therewith the Company shall not be required to qualify as a foreign corporation or to file a general consent to service of process in any jurisdiction;

(c) If by the third anniversary (the “Renewal Deadline”) of the initial effective date of the Registration Statement, (i) any of the Securities remain unsold by the Underwriter and (ii) such Securities cannot be sold other than pursuant to an effective registration statement, upon at least 60 days (but not more than 120 days) prior written notice, (A) the Company will file, if it has not already done so and is eligible to do so, a new automatic shelf registration statement relating to the Securities and the shares of Common Stock initially issuable upon conversion of the Securities, in a form reasonably satisfactory to you and (B) if at the Renewal Deadline the Company is no longer eligible to file an automatic shelf registration statement, the Company will, if it has not already done so and is eligible to do so, file a new shelf registration statement relating to the Securities and the shares of Common Stock initially issuable upon conversion of the Securities, in a form reasonably satisfactory to you and will use its reasonable best efforts to cause such registration statement to be declared effective within 180 days after the later of (x) the Renewal Deadline and (y) the date of such notice. The Company will take all other action necessary or appropriate to permit the public offering and sale of the Securities and the shares of Common Stock initially issuable upon conversion of the Securities to continue as contemplated in the expired registration statement relating to the Securities and the shares of Common Stock initially issuable upon conversion of the Securities. References herein to the Registration Statement shall include such new automatic shelf registration statement or such new shelf registration statement, as the case may be.

(d) Prior to 10:00 a.m., New York City time, on the New York Business Day next succeeding the date of this Agreement and from time to time, to furnish the Underwriter with written and electronic copies of the Prospectus in New York City in such quantities as you may reasonably request, and, if the delivery of a prospectus (or in lieu thereof, the notice referred to in Rule 173(a) under the Securities Act) is required at any time prior to the expiration of nine months after the time of issue of the Prospectus in connection with the offering and sale of the Securities and the shares of Common Stock issuable upon conversion of the Securities and if at such time any event shall have occurred as a result of which the Prospectus as then amended or supplemented would include an untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made when such Prospectus (or in lieu thereof, the notice referred to in Rule 173(a) under the Securities Act) is delivered, not misleading, or, if for any other reason it shall be necessary during such same period to amend or supplement the Prospectus or to file under the Exchange Act any document incorporated by reference in the Prospectus in order to comply with the Securities Act, the Exchange Act or the Trust Indenture Act, to notify you and upon your request to file such document and to prepare and furnish without charge to the Underwriter and to any dealer in securities as many written and electronic copies as you may from time to time reasonably request of an amended Prospectus or a supplement to the Prospectus which will correct such statement or omission or effect such compliance; and in case the Underwriter is required to deliver a prospectus (or in lieu thereof, the notice referred to in Rule 173(a) under the Securities Act) in connection with sales of any of the Securities and the shares of Common Stock issuable upon conversion of the Securities at any time nine months or more after the time of issue of the Prospectus, upon your request but at the expense of the Underwriter, to prepare and deliver to the Underwriter as many written and electronic copies as you may request of an amended or supplemented Prospectus complying with Section 10(a)(3) of the Securities Act.

(e) To make generally available to its security holders as soon as practicable, but in any event not later than sixteen months after the effective date of the Registration Statement (as defined in Rule 158(c) under the Securities Act), an earnings statement of the Company and its subsidiaries (which need not be audited) complying with Section 11(a) of the Securities Act and the rules and regulations of the Commission thereunder (including, at the option of the Company, Rule 158).

(f) During the period beginning from the date hereof and continuing to and including the date 90 days after the date of the Prospectus, not to offer, sell, contract to sell, pledge, grant any option to purchase, make any short sale or otherwise dispose, except as provided hereunder, of any securities of the Company that are substantially similar to the Securities or Common Stock, including but not limited to any options or warrants to purchase shares of Common Stock or any securities that are convertible into or exchangeable for, or that represent the right to receive, Common Stock or any such substantially similar securities (other than pursuant to employee stock option plans or employee stock purchase plans each existing on, or Common Stock issuable (at the conversion rates in effect on the date hereof) upon exchange for, or conversion of, convertible securities outstanding as of the date of this Agreement) without your prior written consent.

(g) Upon request of the Underwriter, to furnish, or cause to be furnished, to the Underwriter an electronic version of the Company's trademarks, servicemarks and corporate logo for use on the website, if any, operated by the Underwriter for the purpose of facilitating the on-line offering of the Securities (the "License"); provided, however, that the License shall be used solely for the purpose described above, is granted without any fee and may not be assigned or transferred.

(h) To pay the required Commission filing fees relating to the Securities within the time required by Rule 456(b)(1) under the Securities Act without regard to the proviso therein and otherwise in accordance with Rules 456(b) and 457(r) under the Securities Act;

(i) To use the net proceeds received by it from the sale of the Securities in the manner specified in the Pricing Disclosure Package under the caption "Use of Proceeds".

(j) To reserve and keep available at all times, free of preemptive rights, shares of Common Stock for the purpose of enabling the Company to satisfy any obligation to issue shares of its Common Stock upon conversion of the Securities; and

6. (a) The Company represents and agrees that without the prior consent of the Underwriter, it has not made and will not make any offer relating to the Securities that would constitute a "free writing prospectus" as defined in Rule 405 under the Securities Act; the Underwriter represents and agrees that, without the prior consent of the Company, it has not made and will not make any offer relating to the Securities that would constitute a free writing prospectus; any such free writing prospectus the use of which has been consented to by the Company is listed on Schedule II(a) hereto.

(b) The Company has complied and will comply with the requirements of Rule 433 under the Securities Act applicable to any Issuer Free Writing Prospectus, including timely filing with the Commission or retention where required and legending.

(c) The Company agrees that if at any time following issuance of an Issuer Free Writing Prospectus any event occurred or occurs as a result of which such Issuer Free Writing Prospectus would conflict with the information in the Registration Statement, the Pricing Disclosure Package or the Prospectus or would include an untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances then prevailing, not misleading, the Company will give prompt notice thereof to the Underwriter and, if requested by the Underwriter, will prepare and furnish without charge to the Underwriter an Issuer Free Writing Prospectus or other document which will correct such conflict, statement or omission; provided, however, that this covenant and agreement shall not apply to any statements or omissions in an Issuer Free Writing Prospectus made in reliance upon and in conformity with information furnished in writing to the Company by the Underwriter expressly for use therein.

7. The Company covenants and agrees with the Underwriter that the Company will pay or cause to be paid the following: (i) the fees, disbursements and expenses of the Company's counsel and accountants in connection with the registration of the Securities and the shares of Common Stock issuable upon conversion of the Securities under the Securities Act and all other expenses in connection with the preparation, printing, reproduction and filing of the Registration Statement, the Basic Prospectus, any Preliminary Prospectus, any Issuer Free Writing Prospectus and the Prospectus and amendments and supplements thereto and the mailing and delivering of copies thereof to the Underwriter and dealers; (ii) the cost of printing or producing any Agreement among the Underwriters, this Agreement, the Indenture, the Blue Sky Memorandum, closing documents (including any compilations thereof) and any other documents in connection with the offering, purchase, sale and delivery of the Securities; (iii) all expenses in connection with the qualification of the Securities and the shares of Common Stock issuable upon conversion of the Securities for offering and sale under state securities laws as provided in Section 5(d) hereof, including the reasonable fees and disbursements of counsel for the Underwriter in connection with such qualification and in connection with the Blue Sky survey; (iv) the filing fees incident to, and the reasonable fees and disbursements of counsel for the Underwriter in connection with, any required review by FINRA of the terms of the sale of the Securities; (v) all fees and expenses in connection with listing the shares of Common Stock issuable upon conversion of the Securities on the Exchange; (vi) the cost of preparing the Securities; (vii) the fees and expenses of the Trustee and any agent of the Trustee and the fees and disbursements of counsel for the Trustee in connection with the Indenture and the Securities; and (viii) all other reasonable costs and expenses incident to the performance of its obligations hereunder which are not otherwise specifically provided for in this Section. It is understood, however, that, except as provided in this Section, and Sections 9 and 12 hereof, the Underwriter will pay all of its own costs and expenses, including the fees of its counsel, transfer taxes on resale it may make of any of the Securities, and any advertising expenses connected with any offers it may make.

8. The obligations of the Underwriter hereunder, as to the Securities to be delivered at each Time of Delivery, shall be subject, in its discretion, to the condition that all representations and warranties and other statements of the Company herein are, at and as of such Time of Delivery, true and correct, the condition that the Company shall have performed all of its obligations hereunder theretofore to be performed, and the following additional conditions:

(a) The Prospectus shall have been filed with the Commission pursuant to Rule 424(b) under the Securities Act within the applicable time period prescribed for such filing by the rules and regulations under the Securities Act and in accordance with Section 5(a) hereof; the Final Term Sheet, and any other material required to be filed by the Company pursuant to Rule 433(d) under the Securities Act shall have been filed with the Commission within the applicable time periods prescribed for such filings by Rule 433; no stop order suspending the effectiveness of the Registration Statement or any part thereof shall have been issued and no proceeding for that purpose shall have been initiated or threatened by the Commission and no notice of objection of the Commission to the use of the Registration Statement or any post-effective amendment thereto pursuant to Rule 401(g)(2) under the Securities Act shall have been received; no stop order suspending or preventing the use of the Prospectus or any Issuer Free Writing Prospectus shall have been initiated or threatened by the Commission; and all requests for additional information on the part of the Commission shall have been complied with to your reasonable satisfaction.

(b) Simpson Thacher & Bartlett LLP, counsel for the Underwriter, shall have furnished to you such written opinion or opinions, dated such Time of Delivery, with respect to such matters as the Underwriter may reasonably request, and such counsel shall have received such papers and information as they may reasonably request to enable them to pass upon such matters.

(c) (i) James H. Davis, the General Counsel of the Company, shall have furnished to you his written opinion and disclosure letter, each dated such Time of Delivery, in form and substance satisfactory to you, to the effect set forth in Annex I hereto, and (ii) DLA Piper LLP (US), counsel for the Company, shall have furnished to you their written opinion and disclosure letter, each dated such Time of Delivery, in form and substance satisfactory to you, to the effect set forth in Annex II hereto.

(d) On the date of the Prospectus at a time prior to the execution of this Agreement, at 9:55 a.m. (New York City time), on the effective date of any post effective amendment to the Registration Statement filed subsequent to the date of this Agreement and also at each Time of Delivery, Ernst & Young LLP shall have furnished to you a “comfort” letter or letters, dated the respective dates of delivery thereof, in form and substance satisfactory to you.

(e) (i) The Company shall not have sustained since the date of the latest audited financial statements included or incorporated by reference in the Pricing Disclosure Package any loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree, otherwise than as set forth or contemplated in the Pricing Disclosure Package, and (ii) since the respective dates as of which information is given in the Pricing Disclosure Package there shall not have been any change in the capital stock or long-term debt of the Company or any change, or any development involving a prospective change, in or affecting the general affairs, management, financial position, stockholders’ equity or results of operations of the Company, otherwise than as set forth or contemplated in the Pricing Disclosure Package, the effect of which, in any such case described in clause (i) or (ii), is in your judgment so material and adverse as to make it impracticable or inadvisable to proceed with the public offering or the delivery of the Securities on the terms and in the manner contemplated in the Pricing Disclosure Package and the Prospectus.

(f) On or after the Applicable Time there shall not have occurred any of the following: (i) a suspension or material limitation in trading in securities generally on the Exchange; (ii) a suspension or material limitation in trading in the Company's securities on the Exchange; (iii) a general moratorium on commercial banking activities declared by either federal or New York State authorities or a material disruption in commercial banking or securities settlement or clearance services in the United States; (iv) the outbreak or escalation of hostilities involving the United States or the declaration by the United States of a national emergency or war; or (v) the occurrence of any other calamity or crisis or any change in financial, political or economic conditions in the United States or elsewhere, if the effect of any such event specified in clause (iv) or (v) in your judgment makes it impracticable or inadvisable to proceed with the public offering or the delivery of the Securities being delivered at such Time of Delivery on the terms and in the manner contemplated in the Pricing Disclosure Package and the Prospectus.

(g) The shares of Common Stock issuable upon conversion of the Securities shall have approved for listing, subject to notice of issuance, on the Exchange.

(h) The Company shall have complied with the provisions of Section 5(d) hereof with respect to the furnishing of prospectuses on the New York Business Day next succeeding the date of this Agreement.

(i) The Underwriter shall have received on the date of this Agreement, and also at each Time of Delivery, a certificate of the Chief Financial Officer and Chief Science Officer of the Company, substantially in the form of Annex IV hereto.

(j) The Company shall have furnished or caused to be furnished to you at such Time of Delivery certificates of officers of the Company satisfactory to you as to the accuracy of the representations and warranties of the Company herein at and as of such Time of Delivery, as to the performance by the Company of all of its obligations hereunder to be performed at or prior to such Time of Delivery, as to the matters set forth in subsections (a) and (e) of this Section and as to such other matters as you may reasonably request.

9. (a) The Company will indemnify and hold harmless the Underwriter against any losses, claims, damages or liabilities, joint or several, to which the Underwriter may become subject, under the Securities Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, the Basic Prospectus, any Preliminary Prospectus, the Pricing Disclosure Package or the Prospectus, or any amendment or supplement thereto, any Issuer Free Writing Prospectus or any "issuer information" filed or required to be filed pursuant to Rule 433(d) under the Securities Act, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, and will reimburse the Underwriter for any legal or other expenses reasonably incurred by the Underwriter in connection with investigating or defending any such action or claim as such expenses are incurred; provided, however, that the Company shall not be liable in any such case to the extent that any such loss, claim, damage or liability arises out of or is based upon an untrue statement or alleged untrue statement or omission or alleged omission made in the Registration Statement, the Basic Prospectus, any Preliminary Prospectus, the Pricing Disclosure Package or the Prospectus, or any amendment or supplement thereto, or any Issuer Free Writing Prospectus, in reliance upon and in conformity with written information furnished to the Company by the Underwriter expressly for use therein.

(b) The Underwriter will indemnify and hold harmless the Company against any losses, claims, damages or liabilities to which the Company may become subject, under the Securities Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, the Basic Prospectus, any Preliminary Prospectus, the Pricing Disclosure Package or the Prospectus, or any amendment or supplement thereto, or any Issuer Free Writing Prospectus, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was made in the Registration Statement, the Basic Prospectus, any Preliminary Prospectus, the Pricing Disclosure Package or the Prospectus, or any amendment or supplement thereto, or any Issuer Free Writing Prospectus, in reliance upon and in conformity with written information furnished to the Company by the Underwriter expressly for use therein; and will reimburse the Company for any legal or other expenses reasonably incurred by the Company in connection with investigating or defending any such action or claim as such expenses are incurred.

(c) Promptly after receipt by an indemnified party under subsection (a) or (b) above of notice of the commencement of any action, such indemnified party shall, if a claim in respect thereof is to be made against the indemnifying party under such subsection, notify the indemnifying party in writing of the commencement thereof; but the omission so to notify the indemnifying party shall not relieve it from any liability which it may have to any indemnified party (except to the extent that such failure to notify results in any material prejudice against the indemnifying party with respect to such action) otherwise than under subsection (a) or (b). In case any such action shall be brought against any indemnified party and it shall notify the indemnifying party of the commencement thereof, the indemnifying party shall be entitled to participate therein and, to the extent that it shall wish, jointly with any other indemnifying party similarly notified, to assume the defense thereof, with counsel satisfactory to such indemnified party (who shall not, except with the consent of the indemnified party, be counsel to the indemnifying party), and, after notice from the indemnifying party to such indemnified party of its election so to assume the defense thereof, the indemnifying party shall not be liable to such indemnified party under such subsection for any legal expenses of other counsel or any other expenses, in each case subsequently incurred by such indemnified party, in connection with the defense thereof other than reasonable costs of investigation. No indemnifying party shall, without the written consent of the indemnified party, effect the settlement or compromise of, or consent to the entry of any judgment with respect to, any pending or threatened action or claim in respect of which indemnification or contribution may be sought hereunder (whether or not the indemnified party is an actual or potential party to such action or claim) unless such settlement, compromise or judgment (i) includes an unconditional release of the indemnified party from all liability arising out of such action or claim and (ii) does not include any statement as to or an admission of fault, culpability or a failure to act, by or on behalf of any indemnified party.

(d) If the indemnification provided for in this Section 9 is unavailable to or insufficient to hold harmless an indemnified party under subsection (a) or (b) above in respect of any losses, claims, damages or liabilities (or actions in respect thereof) referred to therein, then each indemnifying party shall contribute to the amount paid or payable by such indemnified party as a result of such losses, claims, damages or liabilities (or actions in respect thereof) in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and the Underwriter on the other from the offering of the Securities. If, however, the allocation provided by the immediately preceding sentence is not permitted by applicable law or if the indemnified party failed to give the notice required under subsection (c) above, then each indemnifying party shall contribute to such amount paid or payable by such indemnified party in such proportion as is appropriate to reflect not only such relative benefits but also the relative fault of the Company on the one hand and the Underwriter on the other in connection with the statements or omissions which resulted in such losses, claims, damages or liabilities (or actions in respect thereof), as well as any other relevant equitable considerations. The relative benefits received by the Company on the one hand and the Underwriter on the other shall be deemed to be in the same proportion as the total net proceeds from the offering (before deducting expenses) received by the Company bear to the total underwriting discounts and commissions received by the Underwriter, in each case as set forth in the table on the cover page of the Prospectus. The relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company on the one hand or the Underwriter on the other and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission. The Company and the Underwriter agree that it would not be just and equitable if contribution pursuant to this subsection (d) were determined by *pro rata* allocation or by any other method of allocation which does not take account of the equitable considerations referred to above in this subsection (d). The amount paid or payable by an indemnified party as a result of the losses, claims, damages or liabilities (or actions in respect thereof) referred to above in this subsection (d) shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim. Notwithstanding the provisions of this subsection (d), the Underwriter shall not be required to contribute any amount in excess of the amount by which the total price at which the Securities underwritten by it and distributed to the public were offered to the public exceeds the amount of any damages which the Underwriter has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation.

(e) The obligations of the Company under this Section 9 shall be in addition to any liability which the Company may otherwise have and shall extend, upon the same terms and conditions, to each person, if any, who controls the Underwriter within the meaning of the Securities Act, each agent of the Underwriter, and each broker-dealer affiliate of the Underwriter; and the obligations of the Underwriter under this Section 9 shall be in addition to any liability which the Underwriter may otherwise have and shall extend, upon the same terms and conditions, to each officer and director of the Company and to each person, if any, who controls the Company within the meaning of the Securities Act.

10. [Intentionally Omitted]

11. The respective indemnities, agreements, representations, warranties and other statements of the Company and the Underwriter, as set forth in this Agreement or made by or on behalf of them, respectively, pursuant to this Agreement, shall remain in full force and effect, regardless of any investigation (or any statement as to the results thereof) made by or on behalf of the Underwriter or any controlling person of the Underwriter, or the Company, or any officer or director or controlling person of the Company, and shall survive delivery of and payment for the Securities.

12. If for any reason any Securities are not delivered by or on behalf of the Company as provided herein, the Company will reimburse the Underwriter through you for all out-of-pocket expenses approved in writing by you, including fees and disbursements of counsel, reasonably incurred by the Underwriter in making preparations for the purchase, sale and delivery of the Securities not so delivered, but the Company shall then be under no further liability to the Underwriter except as provided in Sections 7 and 9 hereof.

13. All statements, requests, notices and agreements hereunder shall be in writing, and if to the Underwriter shall be delivered or sent by mail, telex or facsimile transmission to you as the Underwriter at Citigroup Global Markets Inc., at 388 Greenwich Street, New York, New York, 10013, Attention: General Counsel ((fax no.: (212) 816-7912) and confirmed to the General Counsel); and if to the Company shall be delivered or sent by mail, telex or facsimile transmission to the address of the Company set forth in the Registration Statement, Attention: Secretary. Any such statements, requests, notices or agreements shall take effect upon receipt thereof.

In accordance with the requirements of the USA Patriot Act (Title III of Pub. L. 107-56 (signed into law October 26, 2001)), the Underwriter is required to obtain, verify and record information that identifies its clients, including the Company, which information may include the name and address of its clients, as well as other information that will allow the Underwriter to properly identify its clients.

14. This Agreement shall be binding upon, and inure solely to the benefit of, the Underwriter, the Company and, to the extent provided in Sections 9 and 11 hereof, the officers and directors of the Company and each person who controls the Company or the Underwriter, and its respective successors and assigns, and no other person shall acquire or have any right under or by virtue of this Agreement. No purchaser of any of the Securities from the Underwriter shall be deemed a successor or assign by reason merely of such purchase.

15. Time shall be of the essence of this Agreement. As used herein, the term "business day" shall mean any day when the Commission's office in Washington, D.C. is open for business.

16. The Company acknowledges and agrees that (i) the purchase and sale of the Securities pursuant to this Agreement is an arm's-length commercial transaction between the Company, on the one hand, and the Underwriter, on the other, (ii) in connection therewith and with the process leading to such transaction the Underwriter is acting solely as a principal and not the agent or fiduciary of the Company, (iii) the Underwriter has not assumed an advisory or fiduciary responsibility in favor of the Company with respect to the offering contemplated hereby or the process leading thereto (irrespective of whether the Underwriter has advised or is currently advising the Company on other matters) or any other obligation to the Company except the obligations expressly set forth in this Agreement and (iv) the Company has consulted its own legal and financial advisors to the extent it deemed appropriate. The Company agrees that it will not claim that the Underwriter has rendered advisory services of any nature or respect, or owes a fiduciary or similar duty to the Company, in connection with such transaction or the process leading thereto.

17. This Agreement supersedes all prior agreements and understandings (whether written or oral) between the Company and the Underwriter, with respect to the subject matter hereof.

18. This Agreement shall be governed by and construed in accordance with the laws of the State of New York.

19. The Company and the Underwriter hereby irrevocably waives, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Agreement or the transactions contemplated hereby.

20. This Agreement may be executed by any one or more of the parties hereto in any number of counterparts, each of which shall be deemed to be an original, but all such respective counterparts shall together constitute one and the same instrument.

21. Notwithstanding anything herein to the contrary, the Company is authorized to disclose to any persons U.S. federal and state tax treatment and tax structure of the potential transaction and all materials of any kind (including tax opinions and other tax analyses) provided to the Company relating to that treatment and structure, without the Underwriter imposing any limitation of any kind. However, any information relating to the tax treatment and tax structure shall remain confidential (and the foregoing sentence shall not apply) to the extent necessary to enable any person to comply with securities laws. For this purpose, "tax structure" is limited to any facts that may be relevant to that treatment." If the foregoing is in accordance with your understanding, please sign and return to us counterparts hereof, and upon the acceptance hereof by you, this letter and such acceptance hereof shall constitute a binding agreement between the Underwriter and the Company.

Very truly yours,

HUMAN GENOME SCIENCES, INC.

By: /s/ David P. Southwell

Name: David P. Southwell

Title: Executive Vice President and Chief
Financial Officer

[Human Genome Sciences, Inc. Underwriting Agreement]

Accepted as of the date hereof:

CITIGROUP GLOBAL MARKETS INC.

By: /s/ Suvir Thadani

Name: Suvir Thadani

Title: Managing Director

[Human Genome Sciences, Inc. Underwriting Agreement]

SCHEDULE I

<u>Underwriter</u>	<u>Principal Amount of Securities to be Purchased</u>	<u>Maximum Principal Amount of Securities to be Purchased if Maximum Option Exercised</u>
Citigroup Global Markets Inc.	430,000,000	494,500,000
Total	<u>430,000,000</u>	<u>494,500,000</u>

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SCHEDULE II

Issuer Free Writing Prospectuses:

- (a) None;
- (b) The Pricing Term Sheet substantially in the form attached as Schedule III hereto.

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SCHEDULE III

Filed pursuant to Rule 433 under the Securities Act of 1933
Issuer Free Writing Prospectus dated November 2, 2011
Relating to Preliminary Prospectus Supplement dated November 2, 2011
Registration Statement No. 333-162731

PRICING TERM SHEET
DATED NOVEMBER 2, 2011
HUMAN GENOME SCIENCES, INC.
3.00% CONVERTIBLE SENIOR NOTES DUE 2018

The information in this pricing term sheet relates only to the offering of the 3.00% Convertible Senior Notes due 2018 and supplements Human Genome Sciences, Inc.'s preliminary prospectus supplement, dated November 2, 2011, including the documents incorporated by reference therein, and the accompanying base prospectus dated October 29, 2009 (together, the "Preliminary Prospectus"), and supersedes the information in the Preliminary Prospectus to the extent inconsistent with the information in the Preliminary Prospectus. In all other respects, this term sheet is qualified in its entirety by reference to the Preliminary Prospectus. Terms used herein but not defined herein shall have the respective meanings as set forth in the Preliminary Prospectus. The Issuer has increased the offering of the notes to \$430.0 million aggregate principal amount (or \$494.5 million if the option to purchase additional notes is exercised in full). Corresponding changes will be made wherever applicable in the Preliminary Prospectus, including as discussed below.

Issuer:	Human Genome Sciences, Inc.
Exchange/Symbol for the Issuer's Common Stock:	NASDAQ: HGSI
Title of Securities:	3.00% Convertible Senior Notes due 2018
Distribution:	Registered
Aggregate Principal Amount Offered:	\$430.0 million (\$494.5 million if the option to purchase additional notes is exercised in full)
Maturity Date:	November 15, 2018, unless earlier repurchased or converted
Interest Rate:	3.00% per year, accruing from November 7, 2011
Interest Payment Dates:	May 15 and November 15, beginning May 15, 2012
Last Sale Price:	\$10.25 per share of the Issuer's common stock on the NASDAQ on November 1, 2011
Conversion Premium:	30.0% above the Last Sale Price
Initial Conversion Rate:	75.0469 shares of the Issuer's common stock per \$1,000 principal amount of the notes
Initial Conversion Price:	Approximately \$13.33 per share of the Issuer's common stock

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Use of Proceeds:	<p>The Issuer intends to use approximately \$43.7 million of the net proceeds of the offering to fund the cost of the capped call transactions described below that the Issuer will enter into with one or more counterparties (the “hedge counterparties”) in connection with the pricing of the notes. If the underwriters exercise their option to purchase additional notes, the Issuer may use a portion of the net proceeds from the sale of such additional notes to fund the cost of entering into additional capped call transactions with the hedge counterparties.</p> <p>The Issuer intends to use the remaining net proceeds from the offering for general corporate purposes, which may include repurchases of the Issuer’s outstanding 2012 Notes before their scheduled maturity date on August 15, 2012, or repayment of the 2012 Notes at maturity unless the 2012 Notes are converted into our common stock.</p>
Capped Call Transaction:	<p>In connection with the pricing of the notes, the Issuer will enter into capped call transactions with the hedge counterparties with respect to the number of shares of the Issuer’s common stock initially issuable upon conversion of the notes. If the underwriters exercise their option to purchase additional notes, the Issuer may enter into additional capped call transactions with the hedge counterparties with respect to the number of shares of our common stock initially issuable upon conversion of the additional notes. The capped call transactions will cover the number of shares of the Issuer’s common stock initially issuable upon conversion of the notes or additional notes, as applicable, with an initial strike price equal to the initial conversion price of the notes and with a cap price initially equal to \$18.45, or approximately 180% of the Last Sale Price (in each case subject to certain anti-dilution adjustments).</p>
Ranking:	Senior Unsecured
Pricing Date:	November 2, 2011
Trade Date:	November 2, 2011
Closing Date:	November 7, 2011
Settlement:	DTC
CUSIP:	444903AN8
ISIN:	US444903AN84
Underwriters:	Citigroup Global Markets Inc.
Adjustment to Conversion Rate Upon a Make-Whole Fundamental Change:	<p>If a “make-whole fundamental change” (as defined in the Preliminary Prospectus) occurs, the Issuer will, under certain circumstances, increase the conversion rate for the notes. The following table sets forth the number of additional shares per \$1,000 principal amount of notes by which the conversion rate shall be increased upon conversion in connection with a make-whole fundamental change:</p>

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Effective Date	Stock Price										
	\$10.25	\$11.00	\$12.00	\$15.00	\$20.00	\$25.00	\$30.00	\$35.00	\$40.00	\$50.00	\$75.00
November 7, 2011	22.5141	19.7838	16.7163	10.8276	6.6736	4.9395	3.8899	3.1466	2.6008	1.8437	0.8675
November 15, 2012	22.5141	19.7916	16.5163	10.3650	6.0960	4.4602	3.5077	2.8422	2.3538	1.6749	0.7955
November 15, 2013	22.5141	19.8482	16.3623	9.8459	5.3685	3.9373	3.0845	2.5013	2.0734	1.4802	0.7092
November 15, 2014	22.5141	19.8355	16.1208	9.1766	4.6699	3.2967	2.5932	2.1125	1.7545	1.2580	0.6080
November 15, 2015	22.5141	19.7061	15.7142	8.3856	3.7522	2.5929	2.0504	1.6755	1.3956	1.0048	0.4901
November 15, 2016	22.5141	19.2830	14.9519	7.1926	2.6942	1.8208	1.4491	1.1876	0.9915	0.7174	0.3539
November 15, 2017	22.5141	18.2125	13.3819	5.2070	1.3765	0.9727	0.7778	0.6390	0.5348	0.3890	0.1947
November 15, 2018	22.5141	15.8622	8.2864	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

The exact stock price and effective date may not be set forth in the table above, in which case:

if the stock price is between two stock prices in the table or the effective date is between two effective dates in the table, the number of additional shares will be determined by straight-line interpolation between the number of additional shares set forth for the higher and lower stock prices and the earlier and later effective dates, as applicable, based on a 365-day year;

if the stock price is more than \$75.00 per share (subject to adjustment in the same manner as the stock prices set forth in the column headings of the table above), no additional shares will be added to the conversion rate; and

if the stock price is less than \$10.25 per share (subject to adjustment in the same manner as the stock prices set forth in the column headings of the table above), no additional shares will be added to the conversion rate.

Notwithstanding the foregoing, in no event will the total number of shares of common stock issuable upon conversion exceed 97.5610 per \$1,000 principal amount of notes, subject to adjustment in the same manner, at the same time and for the same events as the conversion rate as set forth under “Description of the notes–Conversion rights–Conversion Rate Adjustments” in the Preliminary Prospectus.

The Issuer’s obligation to satisfy the additional shares requirement could be considered a penalty, in which case the enforceability thereof would be subject to general principles of reasonableness and equitable remedies.

CAPITALIZATION

The “Capitalization” section on page S-25 of the Preliminary Prospectus is hereby replaced in its entirety with the “Capitalization” section set forth below, giving effect to the increased size of this offering to \$430.0 million aggregate principal amount (or \$494.5 if the option to purchase additional notes is exercised in full):

The following table sets forth our cash, cash equivalents and investments and our capitalization as of September 30, 2011:

on an actual basis;

as adjusted to give effect to the payment at maturity of our outstanding 2 1/4% Convertible Subordinated Notes due 2011 on October 15, 2011; and

as further adjusted to give effect to the sale of \$430.0 million aggregate principal amount of notes in this offering after deducting estimated offering expenses payable by us (assuming no exercise of the underwriters' option to purchase additional notes) and the use of proceeds described in "Use of Proceeds."

You should read this information in conjunction with our financial statements and other financial information that are included or incorporated by reference in the Preliminary Prospectus.

	As of September 30, 2011		
	Actual	As Adjusted (Unaudited)	As Further Adjusted
(In thousands, except for share and per share data)			
Cash, cash equivalents and investments			
Cash and cash equivalents	\$37,660	\$37,660	\$ 411,604
Marketable securities	502,137	422,908	422,908
Marketable securities, non-current	-	-	-
Restricted Investments	79,921	79,921	79,921
Total cash, cash equivalents and investments	\$619,718	\$540,489	\$ 914,433
Capitalization			
Debt:			
2 1/4% Convertible Subordinated Notes due 2011(1)	\$78,346	\$-	\$ -
2 1/4% Convertible Subordinated Notes due 2012(1)	194,456	194,456	194,456
3.00% Convertible Senior Notes due 2018 offered hereby(3)	-	-	314,209
BioMed lease financing	251,744	251,744	251,744
Total debt	\$524,546	\$446,200	\$ 760,409
Stockholders' equity:			
Common stock—\$.01 par value per share; shares authorized—400,000,000; shares issued and outstanding—198,664,617(2)	\$1,987	\$1,987	\$ 1,987
Additional paid-in capital (3) (4)	3,161,193	3,161,193	3,233,253
Accumulated other comprehensive income	5,598	5,598	5,598
Accumulated deficit	(2,719,981)	(2,719,981)	(2,719,981)
Total stockholders' equity	448,797	448,797	520,857
Total Capitalization	\$973,343	\$894,997	\$ 1,281,266

In October 2004, we issued \$280.0 million aggregate principal amount of our 2011 Notes of which \$78.3 million in aggregate principal amount remained outstanding as of September 30, 2011, and in August 2005, we issued \$230.0 million aggregate principal amount of our 2012 Notes of which \$206.7 million in aggregate principal amount remained outstanding as of September 30, 2011. Pursuant to ASC 470-20, these notes are recorded at a discount offset by the amount of the discount being reflected as additional paid-in capital. The discount is amortized over the term of the notes.

(1) The number of shares shown as issued and outstanding in the table above excludes:

an aggregate of approximately 5,039,430 shares and 11,624,827 shares of our common stock issuable upon conversion of our outstanding 2011 Notes and 2012 Notes, respectively, at an applicable conversion price of approximately \$15.55 and \$17.78 per share, respectively;

an aggregate of approximately 32,270,167 shares (or 37,110,692 shares if the underwriters exercise their option to purchase additional notes in full) of our common stock issuable upon conversion of the notes offered hereby at an applicable conversion price of approximately \$13.33 per share;



25,938,193 shares of our common stock issuable upon the exercise of options outstanding as of September 30, 2011, having a weighted-average exercise price of \$16.40 per share;

376,809 shares of our common stock issuable upon the vesting of restricted stock unit awards outstanding as of September 30, 2011; and

an aggregate of 5,701,431 and 596,625 shares of our common stock reserved as of September 30, 2011 under our Amended and Restated Stock Incentive Plan and our Employee Stock Purchase Plan, respectively.

- Amounts shown below reflect the application of ASC 470-20, which requires issuers to separately account for the liability and equity components of convertible debt instruments that may settle in cash (such as the notes and our existing convertible notes).
- (3) In accordance with ASC 470-20, we estimate that \$430.0 million aggregate principal amount of the notes will be recognized as follows (in thousands):

Liability component	
Principal	\$430,000
Less: debt discount	(115,791)
Net carrying amount	\$314,209
Equity component	
	<u>\$115,791</u>

The equity component associated with the notes is reflected in the capitalization table as an increase to additional paid-in capital, as further adjusted.

- (4) Additional paid-in capital, as further adjusted, has also been reduced by \$43.7 million, representing the cost of the capped call transactions entered into in connection with the pricing of the notes. No impact for deferred taxes is recorded due to our full valuation allowance position for tax.

The Issuer has filed a registration statement (including the preliminary prospectus supplement dated November 2, 2011 and an accompanying prospectus dated October 29, 2009) with the SEC, for the offering to which this communication relates. Before you invest, you should read the relevant preliminary prospectus supplement, the accompanying prospectus and the other documents the Issuer has filed with the SEC for more complete information about the Issuer and the offering. You may get these documents for free by visiting EDGAR on the SEC web site at www.sec.gov. Alternatively, copies may be obtained from offices of Citigroup Global Markets Inc. at Brooklyn Army Terminal, 140 58th Street, 8th Floor, Brooklyn, NY 11220, telephone number (800) 831-9146 or email at batprospectusdept@citi.com.

This communication should be read in conjunction with the preliminary prospectus supplement dated November 2, 2011 and the accompanying prospectus dated October 29, 2009. The information in this communication supersedes the information in the preliminary prospectus supplement and the accompanying prospectus to the extent inconsistent with the information in such preliminary prospectus supplement and the accompanying prospectus.

ANY DISCLAIMERS OR OTHER NOTICES THAT MAY APPEAR BELOW ARE NOT APPLICABLE TO THIS COMMUNICATION AND SHOULD BE DISREGARDED. SUCH DISCLAIMERS OR OTHER NOTICES WERE AUTOMATICALLY GENERATED AS A RESULT OF THIS COMMUNICATION BEING SENT VIA BLOOMBERG OR ANOTHER EMAIL SYSTEM.

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SCHEDULE IV

[All Executive Officers and Directors]

H. Thomas Watkins
Susan D. Bateson
James H. Davis, Ph.D., J.D.
Barry A. Labinger
Curran M. Simpson
David P. Southwell
David C. Stump, M.D.
Craig C. Parker

Richard J. Danzig
Allan Baxter, Ph.D.
Colin Goddard, Ph.D.
Maxine Gowen, Ph.D.
Tuan Ha-Ngoc
A. N. "Jerry" Karabelas, Ph.D.
John L. LaMattina, Ph.D.
Augustine Lawlor
George J. Morrow
Gregory Norden
Robert C. Young, M.D.

Sch IV-1

HUMAN GENOME SCIENCES, INC.

Issuer

AND

The Bank of New York Mellon Trust Company, N.A.

Trustee

INDENTURE Dated as of November 7, 2011

Senior Debt Securities

CROSS-REFERENCE TABLE 1

Section of Trust Indenture Act of 1939, as Amended	Indenture
310(a)	7.10
310(b)	7.09; 7.11
310(c)	Inapplicable
311(a)	7.14(a)
311(b)	7.14(b)
311(c)	Inapplicable
312(a)	5.02(a)
312(b)	5.02(c)
312(c)	5.02(c)
313(a)	5.04(a)
313(b)	5.04(b)
313(c)	5.04(a); 5.04(b)
313(d)	5.04(c)
314(a)	5.03; 4.06
314(b)	Inapplicable
314(c)	13.07
314(d)	Inapplicable
314(e)	13.07
314(f)	Inapplicable
315(a)	7.01(a); 7.03
315(b)	7.02
315(c)	7.01
315(d)	7.01(b); 7.01(c)
315(e)	6.07; 7.07
316(a)	6.06 8.04
316(b)	6.04
316(c)	8.01
317(a)	6.02
317(b)	4.03
318(a)	13.08

¹ This Cross-Reference Table does not constitute part of the Indenture and shall not have any bearing on the interpretation of any of its terms or provisions.

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² This Table of Contents does not constitute part of the Indenture and shall not have any bearing on the interpretation of any of its terms or provisions.

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INDENTURE, dated as of November 7, 2011, between Human Genome Sciences, Inc., a Delaware corporation (the “Company”), and The Bank of New York Mellon Trust Company, N.A., as trustee (the “Trustee”):

WHEREAS, for its lawful corporate purposes, the Company has duly authorized the execution and delivery of this Indenture to provide for the issuance of senior unsecured debt securities (hereinafter referred to as the “Securities”), in an unlimited aggregate principal amount to be issued from time to time in one or more series as in this Indenture provided, as registered Securities without coupons, to be authenticated by the certificate of the Trustee;

WHEREAS, to provide the terms and conditions upon which the Securities are to be authenticated, issued and delivered, the Company has duly authorized the execution of this Indenture; and

WHEREAS, all things necessary to make this Indenture a valid agreement of the Company, in accordance with its terms, have been done.

NOW, THEREFORE, in consideration of the premises and the purchase of the Securities by the holders thereof, it is mutually covenanted and agreed as follows for the equal and ratable benefit of the holders of Securities or of series thereof.

ARTICLE I DEFINITIONS AND RULES OF CONSTRUCTION

Section 1.01 Definitions of Terms.

The terms defined in this Section (except as in this Indenture otherwise expressly provided or unless the context otherwise requires) for all purposes of this Indenture and of any indenture supplemental hereto shall have the respective meanings specified in this Section and shall include the plural as well as the singular. All other terms used in this Indenture that are defined in the Trust Indenture Act of 1939, as amended, or that are by reference in said Trust Indenture Act defined in the Securities Act of 1933, as amended (except as herein otherwise expressly provided or unless the context otherwise requires), shall have the meanings assigned to such terms in said Trust Indenture Act and in said Securities Act as in force at the date of the execution of this instrument.

“**Authenticating Agent**” means an authenticating agent with respect to all or any of the series of Securities appointed with respect to all or any series of the Securities by the Trustee pursuant to Section 2.10.

“**Bankruptcy Law**” means Title 11, U.S. Code, or any similar federal or state law for the relief of debtors.

“**Board of Directors**” means the Board of Directors of the Company or any duly authorized committee of such Board.

“**Board Resolution**” means a copy of a resolution certified by the Secretary or an Assistant Secretary of the Company to have been duly adopted by the Board of Directors and to be in full force and effect on the date of such certification.

“**Business Day**” means, with respect to any series of Securities, any day other than a day on which Federal or State banking institutions in the Borough of Manhattan, The City of New York, are authorized or obligated by law, executive order or regulation to close.

“**Certificate**” means a certificate signed by the principal executive officer, the principal financial officer or the principal accounting officer of the Company. The Certificate need not comply with the provisions of Section 13.07.

“**Company**” means Human Genome Sciences, Inc., a corporation duly organized and existing under the laws of the State of Delaware, and, subject to the provisions of Article X, shall also include its successors and assigns.

“**Corporate Trust Office**” means the office of the Trustee at which, at any particular time, its corporate trust business shall be principally administered, which office at the date hereof is located at 525 William Penn Place, 38th Floor, Pittsburgh, PA 15259, Attn: Corporate Trust, or such other address as the Trustee may designate from time to time by notice to the Securityholders and the Company.

“**Covenant Defeasance**” has the meaning given in Section 11.02.

“**Custodian**” means any receiver, trustee, assignee, liquidator or similar official under any Bankruptcy Law.

“**Default**” means any event, act or condition that with notice or lapse of time, or both, would constitute an Event of Default.

“**Defaulted Interest**” has the meaning given in Section 2.03.

“**Depository**” means, with respect to Securities of any series, for which the Company shall determine that such Securities will be issued as a Global Security, The Depository Trust Company, New York, New York, another clearing agency, or any successor registered as a clearing agency under the Securities and Exchange Act of 1934, as amended (the “Exchange Act”), or other applicable statute or regulation, which, in each case, shall be designated by the Company pursuant to either Section 2.01 or 2.11.

“**Event of Default**” means, with respect to Securities of a particular series any event specified in Section 6.01, continued for the period of time, if any, therein designated.

“**Exchange Act**” means the Securities Exchange Act of 1934, as amended, or any successor statute or statutes thereto.

“**Global Security**” means, with respect to any series of Securities, a Security executed by the Company and delivered by the Trustee to the Depository or pursuant to the Depository’s instruction, all in accordance with the Indenture, which shall be registered in the name of the Depository or its nominee.

“Governmental Obligations” means securities that are (i) direct obligations (other than obligations subject to variation in principal repayment) of the United States of America for the payment of which its full faith and credit is pledged or (ii) obligations of a Person controlled or supervised by and acting as an agency or instrumentality of the United States of America, the payment of which is unconditionally guaranteed as a full faith and credit obligation by the United States of America that, in either case, are not callable or redeemable prior to maturity at the option of the issuer thereof, and shall also include a depositary receipt issued by a bank (as defined in Section 3(a)(2) of the Securities Act of 1933, as amended) as custodian with respect to any such Governmental Obligation or a specific payment of principal of or interest on any such Governmental Obligation held by such custodian for the account of the holder of such depositary receipt; provided, however, that (except as required by law) such custodian is not authorized to make any deduction from the amount payable to the holder of such depositary receipt from any amount received by the custodian in respect of the Governmental Obligation or the specific payment of principal of or interest on the Governmental Obligation evidenced by such depositary receipt.

“Herein”, **“hereof”** and **“hereunder”**, and other words of similar import, refer to this Indenture as a whole and not to any particular Article, Section or other subdivision.

“Indenture” means this instrument as originally executed or as it may from time to time be supplemented or amended by one or more indentures supplemental hereto entered into in accordance with the terms hereof, including, for all purposes of this instrument and any such supplemental indenture, the provisions of the Trust Indenture Act that are deemed to be a part of and govern this instrument and any such supplemental indenture, respectively. The term **“Indenture”** shall also include the terms of particular series of Securities established as contemplated by Section 2.01.

“Interest Payment Date”, when used with respect to any installment of interest on a Security of a particular series, means the date specified in such Security or in a Board Resolution or in an indenture supplemental hereto with respect to such series as the fixed date on which an installment of interest with respect to Securities of that series is due and payable.

“Legal Defeasance” has the meaning given in Section 11.02.

“Officers’ Certificate” means a certificate signed by the President or a Vice President and by the Treasurer or an Assistant Treasurer or the Controller or an Assistant Controller or the Secretary or an Assistant Secretary of the Company that is delivered to the Trustee in accordance with the terms hereof. Each such certificate shall include the statements provided for in Section 13.07, if and to the extent required by the provisions thereof.

“Opinion of Counsel” means an opinion in writing of legal counsel, who may be an employee of or counsel for the Company that is delivered to the Trustee in accordance with the terms hereof. Each such opinion shall include the statements provided for in Section 13.07, if and to the extent required by the provisions thereof.

“Original Issue Discount Security” means any Security which provides for an amount less than the principal amount thereof to be due and payable upon a declaration of acceleration of the maturity thereof pursuant to Section 6.01.

“Outstanding”, when used with reference to Securities of any series, means, subject to the provisions of Section 8.04, as of any particular time, all Securities of that series theretofore authenticated and delivered by the Trustee under this Indenture, except (a) Securities theretofore canceled by the Trustee or any paying agent, or delivered to the Trustee or any paying agent for cancellation or that have previously been canceled; (b) Securities or portions thereof for the payment or redemption of which moneys or Governmental Obligations in the necessary amount shall have been deposited in trust with the Trustee or with any paying agent (other than the Company) or shall have been irrevocably set aside and segregated in trust by the Company (if the Company shall act as its own paying agent); provided, however, that if such Securities or portions of such Securities are to be redeemed prior to the maturity thereof, notice of such redemption shall have been given as in Article III or provision satisfactory to the Trustee shall have been made for giving such notice; and (c) Securities in lieu of or in substitution for which other Securities shall have been authenticated and delivered pursuant to the terms of Section 2.07; provided, however, that in determining whether the holders of the requisite principal amount of the Outstanding Securities have given, made or taken any request, demand, authorization, direction, notice, consent, waiver or other action hereunder as of any date, the principal amount of an Original Issue Discount Security which shall be deemed to be Outstanding shall be the amount of the principal thereof which would be due and payable as of such date upon acceleration of the maturity thereof to such date pursuant to Section 6.01.

“Person” means any individual, corporation, limited liability company, partnership, joint-venture, joint-stock company, trust, unincorporated organization or government or any agency or political subdivision thereof.

“Predecessor Security” of any particular Security means every previous Security evidencing all or a portion of the same debt as that evidenced by such particular Security; and, for the purposes of this definition, any Security authenticated and delivered under Section 2.07 in lieu of a lost, destroyed or stolen Security shall be deemed to evidence the same debt as the lost, destroyed or stolen Security.

“Responsible Officer” when used with respect to the Trustee means the Chairman of the Board of Directors, the President, any Vice President, the Secretary, the Treasurer, any trust officer, any corporate trust officer or any other officer or assistant officer of the Trustee customarily performing functions similar to those performed by the Persons who at the time shall be such officers, respectively, or to whom any corporate trust matter is referred because of his or her knowledge of and familiarity with the particular subject and who shall have direct responsibility for the administration of this Indenture.

“Securities” means the debt Securities authenticated and delivered under this Indenture.

“Securityholder”, **“holder of Securities”**, **“registered holder”**, or other similar term, means the Person or Persons in whose name or names a particular Security shall be registered on the books of the Company kept for that purpose in accordance with the terms of this Indenture.

“Security Register” has the meaning given in Section 2.05.

“**Security Registrar**” has the meaning given in Section 2.05.

“**Subsidiary**” means, with respect to any Person, (i) any corporation at least a majority of whose outstanding Voting Stock shall at the time be owned, directly or indirectly, by such Person or by one or more of its Subsidiaries or by such Person and one or more of its Subsidiaries, (ii) any general partnership, limited liability company, joint venture or similar entity, at least a majority of whose outstanding partnership or similar interests shall at the time be owned by such Person, or by one or more of its Subsidiaries, or by such Person and one or more of its Subsidiaries and (iii) any limited partnership of which such Person or any of its Subsidiaries is a general partner.

“**Trustee**” means The Bank of New York Mellon Trust Company, N.A., and, subject to the provisions of Article VII, shall also include its successors and assigns, and, if at any time there is more than one Person acting in such capacity hereunder, “Trustee” shall mean each such Person. The term “Trustee” as used with respect to a particular series of the Securities shall mean the trustee with respect to that series.

“**Trust Indenture Act**” means the Trust Indenture Act of 1939, as amended, subject to the provisions of Sections 9.01, 9.02, and 10.01, as in effect at the date of execution of this instrument.

“**Voting Stock**”, as applied to stock of any Person, means shares, interests, participations or other equivalents in the equity interest (however designated) in such Person having ordinary voting power for the election of a majority of the directors (or the equivalent) of such Person, other than shares, interests, participations or other equivalents having such power only by reason of the occurrence of a contingency.

Section 1.02 Rules of Construction.

For all purposes of this Indenture, except as otherwise expressly provided or unless the context otherwise requires:

- (1) the terms defined in this Article have the meanings assigned to them in this Article and include the plural as well as the singular;
- (2) all other terms used herein which are defined in the Trust Indenture Act, either directly or by reference therein, have the meanings assigned to them therein;
- (3) all accounting terms not otherwise defined herein have the meanings assigned to them in accordance with generally accepted accounting principles in the United States of America, and, except as otherwise herein expressly provided, the term “generally accepted accounting principles” with respect to any computation required or permitted hereunder shall mean such accounting principles as are generally accepted in the United States of America at the date of such computation; and
- (4) the words “herein”, “hereof” and “hereunder” and other words of similar import refer to this Indenture as a whole and not to any particular Article, Section or other subdivision.

ARTICLE II
ISSUE, DESCRIPTION, TERMS, EXECUTION, REGISTRATION AND EXCHANGE
OF SECURITIES

Section 2.01 Designation and Terms of Securities.

The aggregate principal amount of Securities that may be authenticated and delivered under this Indenture is unlimited. The Securities may be issued in one or more series up to the aggregate principal amount of Securities of that series from time to time authorized by or pursuant to a Board Resolution or pursuant to one or more indentures supplemental hereto. Prior to the initial issuance of Securities of any series, there shall be established in or pursuant to a Board Resolution, and set forth in an Officers' Certificate, or established in one or more indentures supplemental hereto:

- (1) the title of the Security of the series (which shall distinguish the Securities of the series from all other Securities);
- (2) any limit upon the aggregate principal amount of the Securities of that series that may be authenticated and delivered under this Indenture (except for Securities authenticated and delivered upon registration of transfer of, or in exchange for, or in lieu of, other Securities of that series);
- (3) the date or dates on which the principal of the Securities of the series is payable and the place(s) of payment;
- (4) the rate or rates at which the Securities of the series shall bear interest or the manner of calculation of such rate or rates, if any;
- (5) the date or dates from which such interest shall accrue, the Interest Payment Dates on which such interest will be payable or the manner of determination of such Interest Payment Dates, the place(s) of payment, and the record date or other method for the determination of holders to whom interest is payable on any such Interest Payment Dates;
- (6) the right, if any, to extend the interest payment periods and the duration of such extension;
- (7) the period or periods within which, the price or prices at which and the terms and conditions upon which, Securities of the series may be redeemed, in whole or in part, at the option of the Company;
- (8) the obligation, if any, of the Company to redeem or purchase Securities of the series pursuant to any sinking fund or analogous provisions (including payments made in cash in satisfaction of future sinking fund obligations) or at the option of a holder thereof and the period or periods within which, the price or prices at which, and the terms and conditions upon which, Securities of the series shall be redeemed or purchased, in whole or in part, pursuant to such obligation;

- (9) the form of the Securities of the series including the form of the Trustee's certificate of authentication for such series;
- (10) if other than denominations of one thousand U.S. dollars (\$1,000) or any integral multiple thereof, the denominations in which the Securities of the series shall be issuable;
- any and all other terms with respect to such series (which terms shall not be inconsistent with the terms of this Indenture, as
- (11) amended by any supplemental indenture) including any terms which may be required by or advisable under United States laws or regulations or advisable in connection with the marketing of Securities of that series;
- (12) whether the Securities are issuable as a Global Security and, in such case, the identity of the Depository for such series;
- whether the Securities will be convertible into shares of common stock or other securities of the Company and, if so, the
- (13) terms and conditions upon which such Securities will be so convertible, including the conversion price and the conversion period;
- (14) if other than the principal amount thereof, the portion of the principal amount of Securities of the series which shall be payable upon declaration of acceleration of the maturity thereof pursuant to Section 6.01;
- (15) any additional or different Events of Default or restrictive covenants provided for with respect to the Securities of the series;
- if applicable, that the Securities of the series, in whole or in specified part, shall be defeasible pursuant to Section 11.02
- (16) and, if other than by a Board Resolution, the manner in which any election by the Company to defease such Securities shall be evidenced; and
- if other than the currency of the United States of America, the currency, currencies or currency units in which the principal
- (17) of or any premium or interest on any Securities of the series shall be payable and the manner of determining the equivalent thereof in the currency of the United States of America for any purpose, including for purposes of the definition of "Outstanding" in Section 1.01.

All Securities of any one series shall be substantially identical except as to denomination and except as may otherwise be provided in or pursuant to any such Board Resolution or in any indentures supplemental hereto. If any of the terms of the series are established by action taken pursuant to a Board Resolution, a copy of an appropriate record of such action shall be certified by the Secretary or an Assistant Secretary of the Company and delivered to the Trustee at or prior to the delivery of the Officers' Certificate setting forth the terms of the series. Securities of any particular series may be issued at various times, with different dates on which the principal or any installment of principal is payable, with different rates of interest, if any, or different methods by which rates of interest may be determined, with different dates on which such interest may be payable and with different redemption dates. Notwithstanding Section 2.01(2) and unless otherwise expressly provided with respect to a series of Securities, the aggregate principal amount of a series of Securities may be increased and additional Securities of such series may be issued up to the maximum aggregate principal amount authorized with respect to such series as increased.

Section 2.02 Form of Securities and Trustee' s Certificate.

The Securities of any series and the Trustee' s certificate of authentication to be borne by such Securities shall be substantially of the tenor and purport as set forth in one or more indentures supplemental hereto or as provided in a Board Resolution and as set forth in an Officers' Certificate. The Securities may have such letters, numbers or other marks of identification or designation and such legends or endorsements printed, lithographed or engraved thereon as the Company may deem appropriate and as are not inconsistent with the provisions of this Indenture, or as may be required to comply with any law or with any rule or regulation made pursuant thereto or with any rule or regulation of any stock exchange on which Securities of that series may be listed, or to conform to usage.

Section 2.03 Denominations: Provisions for Payment.

The Securities shall be issuable as registered Securities and in the denominations of one thousand U.S. dollars (\$1,000) or any integral multiple thereof, subject to Section 2.01(10). The Securities of a particular series shall bear interest payable on the dates and at the rates specified or provided for with respect to that series. Except as contemplated by Section 2.01(17), the principal of and the interest on the Securities of any series, as well as any premium thereon in case of redemption thereof prior to maturity, shall be payable in the coin or currency of the United States of America that at the time is legal tender for public and private debt, at the office or agency of the Company maintained for that purpose; provided, however, that at the option of the Company payment of interest may be made by check mailed to the address of the Person entitled thereto as such address shall appear in the Security Register. Each Security shall be dated the date of its authentication by the Trustee. Except as contemplated by Section 2.01(4), interest on the Securities shall be computed on the basis of a 360-day year composed of twelve 30-day months. Except as contemplated by Section 2.01(5), the interest installment on any Security that is payable, and is punctually paid or duly provided for, on any Interest Payment Date for Securities of that series shall be paid to the Person in whose name said Security (or one or more Predecessor Securities) is registered at the close of business on the regular record date for such interest installment. In the event that any Security of a particular series or portion thereof is called for redemption and the redemption date is subsequent to a regular record date with respect to any Interest Payment Date and prior to such Interest Payment Date, interest on such Security will be paid upon presentation and surrender of such Security as provided in Section 3.03. Any interest on any Security that is payable, but is not punctually paid or duly provided for, on any Interest Payment Date for Securities of the same series (herein called "Defaulted Interest") shall forthwith cease to be payable to the registered holder on the relevant regular record date by virtue of having been such holder; and such Defaulted Interest shall be paid by the Company, at its election, as provided in clause (1) or clause (2) below:

(1) The Company may make payment of any Defaulted Interest on Securities to the Persons in whose names such Securities (or their respective Predecessor Securities) are registered at the close of business on a special record date for the payment of such Defaulted Interest, which shall be fixed in the following manner: the Company shall notify the Trustee in writing of the amount of Defaulted Interest proposed to be paid on each such Security and the date of the proposed payment, and at the same time the Company shall deposit with the Trustee an amount of money equal to the aggregate amount proposed to be paid in respect of such Defaulted Interest or shall make arrangements satisfactory to the Trustee for such deposit prior to the date of the proposed payment, such money when deposited to be held in trust for the benefit of the Persons entitled to such Defaulted Interest as in this clause provided. Thereupon the Trustee shall fix a special record date for the payment of such Defaulted Interest which shall not be more than 15 nor less than 10 days prior to the date of the proposed payment and not less than 10 days after the receipt by the Trustee of the notice of the proposed payment. The Trustee shall promptly notify the Company of such special record date and, in the name and at the expense of the Company, shall cause notice of the proposed payment of such Defaulted Interest and the special record date therefor to be mailed, first class postage prepaid, to each Securityholder at his or her address as it appears in the Security Register (as hereinafter defined), not less than 10 days prior to such special record date. Notice of the proposed payment of such Defaulted Interest and the special record date therefor having been mailed as aforesaid, such Defaulted Interest shall be paid to the Persons in whose names such Securities (or their respective Predecessor Securities) are registered on such special record date.

(2) The Company may make payment of any Defaulted Interest on any Securities in any other lawful manner not inconsistent with the requirements of any securities exchange on which such Securities may be listed, and upon such notice as may be required by such exchange, if, after notice given by the Company to the Trustee of the proposed payment pursuant to this clause, such manner of payment shall be deemed practicable by the Trustee. Unless otherwise set forth in a Board Resolution or one or more indentures supplemental hereto establishing the terms of any series of Securities pursuant to Section 2.01 hereof, the term “regular record date” as used in this Section with respect to a series of Securities with respect to any Interest Payment Date for such series shall mean either the fifteenth day of the month immediately preceding the month in which an Interest Payment Date established for such series pursuant to Section 2.01 hereof shall occur, if such Interest Payment Date is the first day of a month, or the last day of the month immediately preceding the month in which an Interest Payment Date established for such series pursuant to Section 2.01 hereof shall occur, if such Interest Payment Date is the fifteenth day of a month, whether or not such date is a Business Day. Subject to the foregoing provisions of this Section, each Security of a series delivered under this Indenture upon transfer of or in exchange for or in lieu of any other Security of such series shall carry the rights to interest accrued and unpaid, and to accrue, that were carried by such other Security.

Section 2.04 Execution and Authentication.

The Securities shall be signed on behalf of the Company by its President, or one of its Vice Presidents, or its Treasurer, or one of its Assistant Treasurers, under its corporate seal attested by its Secretary or one of its Assistant Secretaries; provided however, that failure to affix a seal shall not affect the validity of any Security. Signatures may be in the form of a manual or facsimile signature. The Company may use the facsimile signature of any Person who shall have been a President or Vice President thereof, or of any Person who shall have been the Treasurer, an Assistant Treasurer, the Secretary or an Assistant Secretary thereof, notwithstanding the fact that at the time the Securities shall be authenticated and delivered or disposed of such Person shall have ceased to be the President or a Vice President, or the Treasurer, an Assistant Treasurer, the Secretary or an Assistant Secretary, of the Company. The seal of the Company may be in the form of a facsimile of such seal and may be impressed, affixed, imprinted or otherwise reproduced on the Securities. The Securities may contain such notations, legends or endorsements required by law, stock exchange rule or usage. A Security shall not be valid until authenticated manually by an authorized signatory of the Trustee, or by an Authenticating Agent. Such signature shall be conclusive evidence that the Security so authenticated has been duly authenticated and delivered hereunder and that the holder is entitled to the benefits of this Indenture. At any time and from time to time after the execution and delivery of this Indenture, the Company may deliver Securities of any series executed by the Company to the Trustee for authentication, together with a written order of the Company for the authentication and delivery of such Securities, signed by its President or any Vice President and its Secretary or any Assistant Secretary, and the Trustee in accordance with such written order shall authenticate and deliver such Securities. In authenticating such Securities and accepting the additional responsibilities under this Indenture in relation to such Securities, the Trustee shall receive, and shall be fully protected in relying upon, an Opinion of Counsel stating that the form and terms thereof have been established in conformity with the provisions of this Indenture and that such Securities, when authenticated and delivered by the Trustee and issued by the Company in the manner and subject to any conditions specified in such Opinion of Counsel, will constitute valid and legally binding obligations of the Company enforceable in accordance with their terms, subject to any Bankruptcy Law or other insolvency, fraudulent transfer, reorganization, moratorium and similar laws of general applicability relating to or affecting creditors’ rights and to general equity principles. The Trustee shall not be required to authenticate such Securities if the issue of such Securities pursuant to this Indenture will affect the Trustee’ s own rights, duties or immunities under the Securities and this Indenture or otherwise in a manner that is not reasonably acceptable to the Trustee.

Section 2.05 Registration of Transfer and Exchange.

(a) Securities of any series may be exchanged upon presentation thereof at the office or agency of the Company designated for such purpose in Pittsburgh, Pennsylvania, for other Securities of such series of authorized denominations, and for a like aggregate principal amount, upon payment of a sum sufficient to cover any tax or other governmental charge in relation thereto, all as provided in this Section. In respect of any Securities so surrendered for exchange, the Company shall execute, the Trustee shall authenticate and such office or agency shall deliver in exchange therefor the Security or Securities of the same series that the Securityholder making the exchange shall be entitled to receive, bearing numbers not contemporaneously outstanding.

(b) The Company shall keep, or cause to be kept, at its office or agency designated for such purpose in Pittsburgh, Pennsylvania, or such other location designated by the Company a register or registers (herein referred to as the "Security Register") in which, subject to such reasonable regulations as it may prescribe, the Company shall register the Securities and the transfers of Securities as in this Article provided and which at all reasonable times shall be open for inspection by the Trustee. The registrar for the purpose of registering Securities and transfer of Securities as herein provided shall be appointed as authorized by Board Resolution (the "Security Registrar"). Upon surrender for transfer of any Security at the office or agency of the Company designated for such purpose, the Company shall execute, the Trustee shall authenticate and such office or agency shall deliver in the name of the transferee or transferees a new Security or Securities of the same series as the Security presented for a like aggregate principal amount. All Securities presented or surrendered for exchange or registration of transfer, as provided in this Section, shall be accompanied (if so required by the Company or the Security Registrar) by a written instrument or instruments of transfer, in form satisfactory to the Company or the Security Registrar, duly executed by the registered holder or by such holder's duly authorized attorney in writing.

(c) No service charge shall be made for any exchange or registration of transfer of Securities, or issue of new Securities in case of partial redemption of any series, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge in relation thereto, other than exchanges pursuant to Section 2.06, Section 3.03(b) and Section 9.04 not involving any transfer. The Company shall not be required (i) to issue, exchange or register the transfer of any Securities during a period beginning at the opening of business 15 days before the day of the mailing of a notice of redemption of less than all the Outstanding Securities of the same series and ending at the close of business on the day of such mailing, nor (ii) to register the transfer of or exchange any Securities of any series or portions thereof called for redemption. The provisions of this Section 2.05 are, with respect to any Global Security, subject to Section 2.11 hereof.

Section 2.06 Temporary Securities.

Pending the preparation of definitive Securities of any series, the Company may execute, and the Trustee shall authenticate and deliver, temporary Securities (printed, lithographed or typewritten) of any authorized denomination. Such temporary Securities shall be substantially in the form of the definitive Securities in lieu of which they are issued, but with such omissions, insertions and variations as may be appropriate for temporary Securities, all as may be determined by the Company. Every temporary Security of any series shall be executed by the Company and be authenticated by the Trustee upon the same conditions and in substantially the same manner, and with like effect, as the definitive Securities of such series. Without unnecessary delay the Company will execute and will furnish definitive Securities of such series and thereupon any or all temporary Securities of such series may be surrendered in exchange therefor (without charge to the holders), at the office or agency of the Company designated for the purpose, and the Trustee shall authenticate and such office or agency shall deliver in exchange for such temporary Securities an equal aggregate principal amount of definitive Securities of such series, unless the Company advises the Trustee to the effect that definitive Securities need not be executed and furnished until further notice from the Company. Until so exchanged, the temporary Securities of such series shall be entitled to the same benefits under this Indenture as definitive Securities of such series authenticated and delivered hereunder.

Section 2.07 Mutilated, Destroyed, Lost or Stolen Securities.

In case any temporary or definitive Security shall become mutilated or be destroyed, lost or stolen, the Company (subject to the next succeeding sentence) shall execute, and upon the Company' s request the Trustee (subject as aforesaid) shall authenticate and deliver, a new Security of the same series, bearing a number not contemporaneously outstanding, in exchange and substitution for the mutilated Security, or in lieu of and in substitution for the Security so destroyed, lost or stolen. In every case the applicant for a substituted Security shall furnish to the Company and the Trustee such security or indemnity as may be required by them to save each of them harmless, and, in every case of destruction, loss or theft, the applicant shall also furnish to the Company and the Trustee evidence to their satisfaction of the destruction, loss or theft of the applicant' s Security and of the ownership thereof. The Trustee may authenticate any such substituted Security and deliver the same upon the written request or authorization of any officer of the Company. Upon the issuance of any substituted Security, the Company may require the payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in relation thereto and any other expenses (including the fees and expenses of the Trustee) connected therewith. In case any Security that has matured or is about to mature shall become mutilated or be destroyed, lost or stolen, the Company may, instead of issuing a substitute Security, pay or authorize the payment of the same (without surrender thereof except in the case of a mutilated Security) if the applicant for such payment shall furnish to the Company and the Trustee such security or indemnity as they may require to save them harmless, and, in case of destruction, loss or theft, evidence to the satisfaction of the Company and the Trustee of the destruction, loss or theft of such Security and of the ownership thereof. Every replacement Security issued pursuant to the provisions of this Section shall constitute an additional contractual obligation of the Company whether or not the mutilated, destroyed, lost or stolen Security shall be found at any time, or be enforceable by anyone, and shall be entitled to all the benefits of this Indenture equally and proportionately with any and all other Securities of the same series duly issued hereunder. All Securities shall be held and owned upon the express condition that the foregoing provisions are exclusive with respect to the replacement or payment of mutilated, destroyed, lost or stolen Securities, and shall preclude (to the extent lawful) any and all other rights or remedies, notwithstanding any law or statute existing or hereafter enacted to the contrary with respect to the replacement or payment of negotiable instruments or other securities without their surrender.

Section 2.08 Cancellation.

All Securities surrendered for the purpose of payment, redemption, exchange or registration of transfer shall, if surrendered to the Company or any paying agent, be delivered to the Trustee for cancellation, or, if surrendered to the Trustee, shall be cancelled by it, and no Securities shall be issued in lieu thereof except as expressly required or permitted by any of the provisions of this Indenture. On written request of the Company at the time of such surrender, the Trustee shall deliver to the Company canceled Securities held by the Trustee. In the absence of such request the Trustee may dispose of canceled Securities in accordance with its standard procedures and deliver a certificate of disposition to the Company. If the Company shall otherwise acquire any of the Securities, however, such acquisition shall not operate as a redemption or satisfaction of the indebtedness represented by such Securities unless and until the same are delivered to the Trustee for cancellation.

Section 2.09 Benefits of Indenture.

Nothing in this Indenture or in the Securities, express or implied, shall give or be construed to give to any Person, other than the parties hereto and the holders of the Securities any legal or equitable right, remedy or claim under or in respect of this Indenture, or under any covenant, condition or provision herein contained; all such covenants, conditions and provisions being for the sole benefit of the parties hereto and of the holders of the Securities.

Section 2.10 Authenticating Agent.

So long as any of the Securities of any series remain Outstanding there may be an Authenticating Agent for any or all such series of Securities which the Trustee shall have the right to appoint. Said Authenticating Agent shall be authorized to act on behalf of the Trustee to authenticate Securities of such series issued upon exchange, transfer or partial redemption thereof, and Securities so authenticated shall be entitled to the benefits of this Indenture and shall be valid and obligatory for all purposes as if authenticated by the Trustee hereunder. All references in this Indenture to the authentication of Securities by the Trustee shall be deemed to include authentication by an Authenticating Agent for such series. Each Authenticating Agent shall be acceptable to the Company and shall be a corporation that has a combined capital and surplus, as most recently reported or determined by it, sufficient under the laws of any jurisdiction under which it is organized or in which it is doing business to conduct a trust business, and that is otherwise authorized under such laws to conduct such business and is subject to supervision or examination by Federal or State authorities. If at any time any Authenticating Agent shall cease to be eligible in accordance with these provisions, it shall resign immediately. Any Authenticating Agent may at any time resign by giving written notice of resignation to the Trustee and to the Company. The Trustee may at any time (and upon request by the Company shall) terminate the agency of any Authenticating Agent by giving written notice of termination to such Authenticating Agent and to the Company. Upon resignation, termination or cessation of eligibility of any Authenticating Agent, the Trustee may appoint an eligible successor Authenticating Agent acceptable to the Company. Any successor Authenticating Agent, upon acceptance of its appointment hereunder, shall become vested with all the rights, powers and duties of its predecessor hereunder as if originally named as an Authenticating Agent pursuant hereto.

Any corporation into which an Authenticating Agent may be merged or converted or with which it may be consolidated, or any corporation resulting from any merger, conversion or consolidation to which such Authenticating Agent shall be a party, or any corporation succeeding to the corporate agency or corporate trust business of an Authenticating Agent, shall continue to be an Authenticating Agent, provided that such corporation shall be otherwise eligible under this Section, without the execution or filing of any paper or any further act on the part of the Trustee or the Authenticating Agent.

Section 2.11 Global Securities.

(a) If the Company shall establish pursuant to Section 2.01 that the Securities of a particular series are to be issued as a Global Security, then the Company shall execute and the Trustee shall, in accordance with Section 2.04, authenticate and deliver, a Global Security that

- (1) shall represent, and shall be denominated in an amount equal to the aggregate principal amount of, all or a portion of the Outstanding Securities of such series,
- (2) shall be registered in the name of the Depositary or its nominee,

- (3) shall be delivered by the Trustee to the Depository or pursuant to the Depository's instruction and shall bear a legend substantially to the following effect: "Except as otherwise provided in Section 2.11 of the
- (4) Indenture, this Security may be transferred, in whole but not in part, only to the Depository, another nominee of the Depository or to a successor Depository or to a nominee of such successor Depository."

(b) Notwithstanding the provisions of Section 2.05, the Global Security of a series may be transferred, in whole but not in part and in the manner provided in Section 2.05, only to the Depository for such series, another nominee of the Depository for such series, or to a successor Depository for such series selected or approved by the Company or to a nominee of such successor Depository.

(c) If at any time the Depository for a series of the Securities notifies the Company that it is unwilling or unable to continue as Depository for such series or if at any time the Depository for such series shall no longer be registered or in good standing under the Exchange Act, or other applicable statute or regulation, and a successor Depository for such series is not appointed by the Company within 90 days after the Company receives such notice or becomes aware of such condition, as the case may be, this Section 2.11 shall no longer be applicable to the Securities of such series and the Company will execute, and subject to Section 2.05, the Trustee will authenticate and deliver the Securities of such series in definitive registered form without coupons, in authorized denominations, and in an aggregate principal amount equal to the principal amount of the Global Security of such series in exchange for such Global Security. In addition, the Company may at any time determine that the Securities of any series shall no longer be represented by a Global Security and that the provisions of this Section 2.11 shall no longer apply to the Securities of such series. In such event the Company will execute and subject to Section 2.05, the Trustee, upon receipt of an Officers' Certificate evidencing such determination by the Company, will authenticate and deliver the Securities of such series in definitive registered form without coupons, in authorized denominations, and in an aggregate principal amount equal to the principal amount of the Global Security of such series in exchange for such Global Security. Upon the exchange of the Global Security for such Securities in definitive registered form without coupons, in authorized denominations, the Global Security shall be canceled by the Trustee. Such Securities in definitive registered form issued in exchange for the Global Security pursuant to this Section 2.11(c) shall be registered in such names and in such authorized denominations as the Depository, pursuant to instructions from its direct or indirect participants or otherwise, shall instruct the Trustee. The Trustee shall deliver such Securities to the Depository for delivery to the Persons in whose names such Securities are so registered.

ARTICLE III
REDEMPTION OF SECURITIES AND SINKING FUND PROVISIONS

Section 3.01 Redemption.

The Company may redeem the Securities of any series issued hereunder on and after the dates and in accordance with the terms established for such series pursuant to Section 2.01 hereof.

Section 3.02 Notice of Redemption.

(a) In case the Company shall desire to exercise such right to redeem all or, as the case may be, a portion of the Securities of any series in accordance with the right reserved so to do, the Company shall, or shall cause the Trustee to, give notice of such redemption to holders of the Securities of such series to be redeemed by mailing, first class postage prepaid, a notice of such redemption not less than 30 days and not more than 90 days before the date fixed for redemption of that series to such holders at their last addresses as they shall appear upon the Security Register unless a shorter period is specified in the Securities to be redeemed. Any notice that is mailed in the manner herein provided shall be conclusively presumed to have been duly given, whether or not the registered holder receives the notice. In any case, failure duly to give such notice to the holder of any Security of any series designated for redemption in whole or in part, or any defect in the notice, shall not affect the validity of the proceedings for the redemption of any other Securities of such series or any other series. In the case of any redemption of Securities prior to the expiration of any restriction on such redemption provided in the terms of such Securities or elsewhere in this Indenture, the Company shall furnish the Trustee with an Officers' Certificate evidencing compliance with any such restriction. Each such notice of redemption shall specify the date fixed for redemption and the redemption price at which Securities of that series are to be redeemed, and shall state that payment of the redemption price of such Securities to be redeemed will be made at the office or agency of the Company in Pittsburgh, Pennsylvania, upon presentation and surrender of such Securities, that interest accrued to the date fixed for redemption will be paid as specified in said notice, that from and after said date interest will cease to accrue, that the redemption is for a sinking fund, if such is the case, and the CUSIP number of the Securities and state that no representation is made as to the correctness or accuracy of the CUSIP number, if any, listed in the notice or printed on the Securities. If less than all the Securities of a series are to be redeemed, the notice to the holders of Securities of that series to be redeemed in whole or in part shall specify the particular Securities to be so redeemed. In case any Security is to be redeemed in part only, the notice that relates to such Security shall state the portion of the principal amount thereof to be redeemed, and shall state that on and after the redemption date, upon surrender of such Security, a new Security or Securities of such series in principal amount equal to the unredeemed portion thereof will be issued.

(b) If less than all the Securities of a series are to be redeemed, the Company shall give the Trustee at least 45 days' notice (unless a shorter period is satisfactory to the Trustee) in advance of the date fixed for redemption as to the aggregate principal amount of Securities of the series to be redeemed, and thereupon the Trustee shall select in a manner that complies with the requirements, if any, of any applicable stock exchange or which the Securities are listed and that the Trustee deems appropriate and fair in its discretion and that may provide for the selection of a portion or portions (equal to one thousand U.S. dollars (\$1,000) or any integral multiple thereof) of the principal amount of such Securities of a denomination larger than \$1,000, the Securities to be redeemed and shall thereafter promptly notify the Company in writing of the numbers of the Securities to be redeemed, in whole or in part. The Company may, if and whenever it shall so elect, by delivery of instructions signed on its behalf by its President or any Vice President, instruct the Trustee or any paying agent to call all or any part of the Securities of a particular series for redemption and to give notice of redemption in the manner set forth in this Section, such notice to be in the name of the Company or its own name as the Trustee or such paying agent as it may deem advisable. In any case in which notice of redemption is to be given by the Trustee or any such paying agent, the Company shall deliver or cause to be delivered to, or permit to remain with, the Trustee or such paying agent, as the case may be, such Security Register, transfer books or other records, or suitable copies or extracts therefrom, sufficient to enable the Trustee or such paying agent to give any notice by mail that may be required under the provisions of this Section.

Section 3.03 Payment Upon Redemption.

(a) If the giving of notice of redemption shall have been completed as above provided, the Securities or portions of Securities of the series to be redeemed specified in such notice shall become due and payable on the date and at the place stated in such notice at the applicable redemption price, together with interest accrued to the date fixed for redemption and interest on such Securities or portions of Securities shall cease to accrue on and after the date fixed for redemption, unless the Company shall default in the payment of such redemption price and accrued interest with respect to any such Security or portion thereof. On presentation and surrender of such Securities on or after the date fixed for redemption at the place of payment specified in the notice, said Securities shall be paid and redeemed at the applicable redemption price for such series, together with interest accrued thereon to the date fixed for redemption (but if the date fixed for redemption is an Interest Payment Date, the interest installment payable on such date shall be payable to the registered holder at the close of business on the applicable record date pursuant to Section 2.03).

(b) Upon presentation of any Security of such series that is to be redeemed in part only, the Company shall execute and the Trustee shall authenticate and the office or agency where the Security is presented shall deliver to the holder thereof, at the expense of the Company, a new Security of the same series of authorized denominations in principal amount equal to the unredeemed portion of the Security so presented.

Section 3.04 Sinking Fund.

The provisions of Sections 3.04, 3.05 and 3.06 shall be applicable to any sinking fund for the retirement of Securities of a series, except as otherwise specified as contemplated by Section 2.01 for Securities of such series. The minimum amount of any sinking fund payment provided for by the terms of Securities of any series is herein referred to as a "mandatory sinking fund payment," and any payment in excess of such minimum amount provided for by the terms of Securities of any series is herein referred to as an "optional sinking fund payment". If provided for by the terms of Securities of any series, the cash amount of any sinking fund payment may be subject to reduction as provided in Section 3.05. Each sinking fund payment shall be applied to the redemption of Securities of any series as provided for by the terms of Securities of such series.

Section 3.05 Satisfaction of Sinking Fund Payments with Securities.

The Company,

- (1) may deliver Outstanding Securities of a series (other than any Securities previously called for redemption) and may apply as a credit Securities of a series that have been redeemed either at the election of the Company pursuant to the terms of such Securities or through the application of permitted optional sinking fund payments pursuant to the terms of such Securities, in each case in satisfaction of all or any part of any sinking fund payment with respect to the Securities of
- (2) such series required to be made pursuant to the terms of such Securities as provided for by the terms of such series, provided that such Securities have not been previously so credited. Such Securities shall be received and credited for such purpose by the Trustee at the redemption price specified in such Securities for redemption through operation of the sinking fund and the amount of such sinking fund payment shall be reduced accordingly.

Section 3.06 Redemption of Securities for Sinking Fund.

Not less than 45 days (unless a shorter period is satisfactory to the Trustee) prior to each sinking fund payment date for any series of Securities, the Company will deliver to the Trustee an Officers' Certificate specifying the amount of the next ensuing sinking fund payment for that series pursuant to the terms of the series, the portion thereof, if any, that is to be satisfied by delivering and crediting Securities of that series pursuant to Section 3.05 and the basis for such credit and will, together with such Officers' Certificate, deliver to the Trustee any Securities to be so delivered. Not less than 30 days before each such sinking fund payment date the Trustee shall select the Securities to be redeemed upon such sinking fund payment date in the manner specified in Section 3.02 and cause notice of the redemption thereof to be given in the name of and at the expense of the Company in the manner provided in Section 3.02. Such notice having been duly given, the redemption of such Securities shall be made upon the terms and in the manner stated in Section 3.03.

ARTICLE IV COVENANTS

Section 4.01 Payment of Principal, Premium and Interest.

The Company will duly and punctually pay or cause to be paid the principal of (and premium, if any) and interest on the Securities of each series at the time and place and in the manner provided herein and established with respect to such Securities.

Section 4.02 Maintenance of Office or Agency.

So long as any series of the Securities remain Outstanding, the Company agrees to maintain an office or agency in the Borough of Manhattan, the City and State of New York, with respect to each such series and at such other location or locations as may be designated as provided in this Section 4.02, where (i) Securities of that series may be presented for payment, (ii) Securities of that series may be presented as herein above authorized for registration of transfer and exchange, and (iii) notices and demands to or upon the Company in respect of the Securities of that series and this Indenture may be given or served, such designation to continue with respect to such office or agency until the Company shall, by written notice signed by its President or a Vice President and delivered to the Trustee, designate some other office or agency in the Borough of Manhattan, the City and State of New York for such purposes or any of them. If at any time the Company shall fail to maintain any such required office or agency or shall fail to furnish the Trustee with the address thereof, such presentations, notices and demands may be made or served at the Corporate Trust Office of the Trustee, and the Company hereby appoints the Trustee as its agent to receive all such presentations, notices and demands.

The Company may also from time to time designate one or more other offices or agencies where the Securities of one or more series may be presented or surrendered for any or all such purposes and may from time to time rescind such designations; provided, however, that no such designation or rescission shall in any manner relieve the Company of its obligation to maintain an office or agency in the Borough of Manhattan, the City and State of New York for Securities of any series for such purposes. The Company will give prompt written notice to the Trustee of any such designation or rescission and of any change in the location of any such other office or agency.

Section 4.03 Paying Agents.

(a) If the Company shall appoint one or more paying agents for all or any series of the Securities, other than the Trustee, the Company will cause each such paying agent to execute and deliver to the Trustee an instrument in which such agent shall agree with the Trustee, subject to the provisions of this Section:

- (1) that it will hold all sums held by it as such agent for the payment of the principal of (and premium, if any) or interest on the Securities of that series (whether such sums have been paid to it by the Company or by any other obligor of such Securities) in trust for the benefit of the Persons entitled thereto;
- (2) that it will give the Trustee notice of any failure by the Company (or by any other obligor of such Securities) to make any payment of the principal of (and premium, if any) or interest on the Securities of that series when the same shall be due and payable;

- (3) that it will, at any time during the continuance of any failure referred to in the preceding paragraph (a)(2) above, upon the written request of the Trustee, forthwith pay to the Trustee all sums so held in trust by such paying agent; and
- (4) that it will perform all other duties of paying agent as set forth in this Indenture.

(b) If the Company shall act as its own paying agent with respect to any series of the Securities, it will on or before each due date of the principal of (and premium, if any) or interest on Securities of that series, set aside, segregate and hold in trust for the benefit of the Persons entitled thereto a sum sufficient to pay such principal (and premium, if any) or interest so becoming due on Securities of that series until such sums shall be paid to such Persons or otherwise disposed of as herein provided and will promptly notify the Trustee of such action, or any failure (by it or any other obligor on such Securities) to take such action. Whenever the Company shall have one or more paying agents for any series of Securities, it will, prior to each due date of the principal of (and premium, if any) or interest on any Securities of that series, deposit with the paying agent a sum sufficient to pay the principal (and premium, if any) or interest so becoming due, such sum to be held in trust for the benefit of the Persons entitled to such principal, premium or interest, and (unless such paying agent is the Trustee) the Company will promptly notify the Trustee of this action or failure so to act.

(c) Notwithstanding anything in this Section to the contrary,

- (1) the agreement to hold sums in trust as provided in this Section is subject to the provisions of Section 11.05, and the Company may at any time, for the purpose of obtaining the satisfaction and discharge of this Indenture or for any other purpose, pay, or direct any paying agent to pay, to the Trustee all sums held in trust by the Company or such
- (2) paying agent, such sums to be held by the Trustee upon the same terms and conditions as those upon which such sums were held by the Company or such paying agent; and, upon such payment by any paying agent to the Trustee, such paying agent shall be released from all further liability with respect to such money.

Section 4.04 Appointment to Fill Vacancy in Office of Trustee.

The Company, whenever necessary to avoid or fill a vacancy in the office of Trustee, will appoint, in the manner provided in Section 7.11, a Trustee, so that there shall at all times be a Trustee hereunder.

Section 4.05 Compliance with Consolidation Provisions.

The Company will not, while any of the Securities remain Outstanding, consolidate with or merge into any other Person, in either case where the Company is not the survivor of such transaction, or sell, convey, transfer or otherwise dispose of its property as an entirety or substantially as an entirety to any other Person unless the provisions of Article X hereof are complied with.

Section 4.06 Statement by Officers as to Default.

The Company will deliver to the Trustee, within 90 days after the end of each fiscal year of the Company, a Certificate, stating whether or not to the best knowledge of the signer thereof the Company is in default in the performance and observance of any of the terms, provisions and conditions of this Indenture (without regard to any period of grace or requirement of notice provided hereunder) and, if the Company shall be in default, specifying all such defaults and the nature and status thereof of which such signer may have knowledge.

**ARTICLE V
SECURITYHOLDERS' LISTS AND REPORTS BY THE COMPANY AND THE TRUSTEE**

Section 5.01 Company to Furnish Trustee Names and Addresses of Securityholders.

The Company will furnish or cause to be furnished to the Trustee

- (1) not more than 15 days after each regular record date (as defined in Section 2.03) a list, in such form as the Trustee may reasonably require, of the names and addresses of the holders of each series of Securities as of such regular record date, provided that the Company shall not be obligated to furnish or cause to furnish such list at any time that the list shall not differ in any respect from the most recent list furnished to the Trustee by the Company and
- (2) at such other times as the Trustee may request in writing within 30 days after the receipt by the Company of any such request, a list of similar form and content as of a date not more than 15 days prior to the time such list is furnished;

provided, however, that, in either case, no such list need be furnished for any series for which the Trustee shall be the Security Registrar.

Section 5.02 Preservation Of Information; Communications With Securityholders.

(a) The Trustee shall preserve, in as current a form as is reasonably practicable, all information as to the names and addresses of the holders of Securities contained in the most recent list furnished to it as provided in Section 5.01 and as to the names and addresses of holders of Securities received by the Trustee in its capacity as Security Registrar (if acting in such capacity).

(b) The Trustee may destroy any list furnished to it as provided in Section 5.01 upon receipt of a new list so furnished.

(c) Securityholders may communicate as provided in Section 312(b) of the Trust Indenture Act with other Securityholders with respect to their rights under this Indenture or under the Securities.

Section 5.03 Reports by the Company.

(a) The Company covenants and agrees to file with the Trustee, within 15 days after the Company files the same with the Commission, copies of the annual reports and of the information, documents and other reports (or copies of such portions of any of the foregoing as the Commission may from time to time by rules and regulations prescribe) that the Company may be required to file with the Commission pursuant to Section 13 or Section 15(d) of the Exchange Act; or, if the Company is not required to file information, documents or reports pursuant to either of such sections, then to file with the Trustee and the Commission, in accordance with the rules and regulations prescribed from time to time by the Commission, such of the supplementary and periodic information, documents and reports that may be required pursuant to Section 13 of the Exchange Act, in respect of a security listed and registered on a national securities exchange as may be prescribed from time to time in such rules and regulations.

(b) The Company covenants and agrees to file with the Trustee and the Commission, in accordance with the rules and regulations prescribed from time to time by the Commission, such additional information, documents and reports with respect to compliance by the Company with the conditions and covenants provided for in this Indenture as may be required from time to time by such rules and regulations.

(c) The Company covenants and agrees to transmit by mail, first class postage prepaid, or reputable overnight delivery service or electronic method that provides for evidence of receipt, to the Securityholders, as their names and addresses appear upon the Security Register, within 30 days after the filing thereof with the Trustee, such summaries of any information, documents and reports required to be filed by the Company pursuant to subsections (a) and (b) of this Section as may be required by rules and regulations prescribed from time to time by the Commission.

Section 5.04 Reports by the Trustee.

(a) Within 60 days after each May 15, beginning with the May 15 following the date of this Indenture, in each year in which any of the Securities are Outstanding, the Trustee shall transmit by mail, first class postage prepaid, to the Securityholders, as their names and addresses appear upon the Security Register, a brief report dated as of such May 15, if and to the extent required under Section 313(a) of the Trust Indenture Act.

(b) The Trustee shall comply with Section 313(b) and 313(c) of the Trust Indenture Act.

(c) A copy of each such report shall, at the time of such transmission to Securityholders, be filed by the Trustee with the Company, with each stock exchange upon which any Securities are listed (if so listed) and also with the Commission. The Company agrees to notify the Trustee when any Securities become listed or delisted on any stock exchange.

ARTICLE VI
REMEDIES OF THE TRUSTEE AND SECURITYHOLDERS ON EVENT OF DEFAULT

Section 6.01 Events of Default.

(a) Whenever used herein with respect to Securities of a particular series, “Event of Default” means any one or more of the following events that has occurred and is continuing (whatever the reason for such Event of Default and whether it shall be voluntary or involuntary or be effected by operation of law or pursuant to any judgment, decree or order of any court or any order, rule or regulation of any administrative or governmental body):

(1) the Company defaults in the payment of any installment of interest upon any of the Securities of that series, as and when the same shall become due and payable, and continuance of such default for a period of 90 days; provided, however, that a valid extension of an interest payment period by the Company in accordance with the terms of any indenture supplemental hereto shall not constitute a default in the payment of interest for this purpose;

(2) the Company defaults in the payment of the principal of (or premium, if any, on) any of the Securities of that series as and when the same shall become due and payable whether at maturity, upon redemption, by declaration or otherwise, or in any payment required by any sinking or analogous fund established with respect to that series; provided, however, that a valid extension of the maturity of such Securities in accordance with the terms of any indenture supplemental hereto shall not constitute a default in the payment of principal or premium, if any;

(3) the Company fails to observe or perform any other of its covenants or agreements with respect to that series contained in this Indenture or otherwise established with respect to that series of Securities pursuant to Section 2.01 hereof (other than a covenant or agreement that has been expressly included in this Indenture solely for the benefit of one or more series of Securities other than such series) for a period of 90 days after the date on which written notice of such failure, requiring the same to be remedied and stating that such notice is a “Notice of Default” hereunder, shall have been given to the Company by the Trustee, by registered or certified mail, or to the Company and the Trustee by the holders of at least 25% in principal amount of the Securities of that series at the time Outstanding;

(4) the Company pursuant to or within the meaning of any Bankruptcy Law

- (i) commences a voluntary case,
- (ii) consents to the entry of an order for relief against it in an involuntary case,

- (iii) consents to the appointment of a Custodian of it or for all or substantially all of its property or
 - (iv) makes a general assignment for the benefit of its creditors; or
- (5) a court of competent jurisdiction enters an order under any Bankruptcy Law that
- (i) is for relief against the Company in an involuntary case,
 - (ii) appoints a Custodian of the Company or for all or substantially all of its property, or
 - (iii) orders the liquidation of the Company, and the order remains unstayed and in effect for 90 days.

(b) In each and every such case, unless the principal of all the Securities of that series shall have already become due and payable, either the Trustee or the holders of not less than 25% in aggregate principal amount of the Securities of that series then Outstanding hereunder, by notice in writing to the Company (and to the Trustee if given by such Securityholders), may declare the principal of all the Securities of that series to be due and payable immediately, and upon any such declaration the same shall become and shall be immediately due and payable.

(c) At any time after the principal of the Securities of that series shall have been so declared due and payable, and before any judgment or decree for the payment of the moneys due shall have been obtained or entered as hereinafter provided, the holders of a majority in aggregate principal amount of the Securities of that series then Outstanding hereunder, by written notice to the Company and the Trustee, may rescind and annul such declaration and its consequences if:

- (1) the Company has paid or deposited with the Trustee a sum sufficient to pay all matured installments of interest upon all the Securities of that series and the principal of (and premium, if any, on) any and all Securities of that series that shall have become due otherwise than by acceleration (with interest upon such principal and premium, if any, and, to the extent that such payment is enforceable under applicable law, upon overdue installments of interest, at the rate per annum expressed in the Securities of that series to the date of such payment or deposit) and the amount payable to the Trustee under Section 7.07, and
- (2) any and all Events of Default under the Indenture with respect to such series, other than the nonpayment of principal on Securities of that series that shall not have become due by their terms, shall have been remedied or waived as provided in Section 6.06. No such rescission and annulment shall extend to or shall affect any subsequent default or impair any right consequent thereon.

(d) In case the Trustee shall have proceeded to enforce any right with respect to Securities of that series under this Indenture and such proceedings shall have been discontinued or abandoned because of such rescission or annulment or for any other reason or shall have been determined adversely to the Trustee, then and in every such case, subject to any determination in such proceedings, the Company, and the Trustee shall be restored respectively to their former positions and rights hereunder, and all rights, remedies and powers of the Company and the Trustee shall continue as though no such proceedings had been taken.

Section 6.02 Collection of Indebtedness and Suits for Enforcement by Trustee.

(a) The Company covenants that

- (1) in case it shall default in the payment of any installment of interest on any of the Securities of a series, as and when the same shall have become due and payable, and such default shall have continued for a period of 90 days, or
- (2) in case it shall default in the payment of the principal of (or premium, if any, on) any of the Securities of a series when the same shall have become due and payable, whether upon maturity of the Securities of a series or upon redemption or upon declaration, pursuant to any sinking or analogous fund established with respect to that series or otherwise,

then, upon demand of the Trustee, the Company will pay to the Trustee, for the benefit of the holders of the Securities of that series, the whole amount that then shall have become due and payable on all such Securities for principal (and premium, if any) or interest, or both, as the case may be, with interest upon the overdue principal (and premium, if any) and (to the extent that payment of such interest is enforceable under applicable law) upon overdue installments of interest at the rate per annum expressed in the Securities of that series; and, in addition thereto, such further amount as shall be sufficient to cover the costs and expenses of collection, and the amount payable to the Trustee under Section 7.07.

(b) If the Company shall fail to pay such amounts forthwith upon such demand, the Trustee, in its own name and as trustee of an express trust, shall be entitled and empowered to institute any action or proceedings at law or in equity for the collection of the sums so due and unpaid, and may prosecute any such action or proceeding to judgment or final decree, and may enforce any such judgment or final decree against the Company or other obligor upon the Securities of that series and collect the moneys adjudged or decreed to be payable in the manner provided by law out of the property of the Company or other obligor upon the Securities of that series, wherever situated.

(c) In case of any receivership, insolvency, liquidation, bankruptcy, reorganization, readjustment, arrangement, composition or judicial proceedings affecting the Company, or its creditors or property, the Trustee shall have power to intervene in such proceedings and take any action therein that may be permitted by the court and shall (except as may be otherwise provided by law) be entitled to file such proofs of claim and other papers and documents as may be necessary or advisable in order to have the claims of the Trustee and of the holders of Securities of such series allowed for the entire amount due and payable by the Company under the Indenture at the date of institution of such proceedings and for any additional amount that may become due and payable by the Company after such date, and to collect and receive any moneys or other property payable or deliverable on any such claim, and to distribute the same after the deduction of the amount payable to the Trustee under Section 7.07; and any receiver, assignee or trustee in bankruptcy or reorganization is hereby authorized by each of the holders of Securities of such series to make such payments to the Trustee, and, in the event that the Trustee shall consent to the making of such payments directly to such Securityholders, to pay to the Trustee any amount due it under Section 7.07.

(d) All rights of action and of asserting claims under this Indenture, or under any of the terms established with respect to Securities of that series, may be enforced by the Trustee without the possession of any of such Securities, or the production thereof at any trial or other proceeding relative thereto, and any such suit or proceeding instituted by the Trustee shall be brought in its own name as trustee of an express trust, and any recovery of judgment shall, after provision for payment to the Trustee of any amounts due under Section 7.07, be for the ratable benefit of the holders of the Securities of such series. In case of an Event of Default hereunder, the Trustee may in its discretion proceed to protect and enforce the rights vested in it by this Indenture by such appropriate judicial proceedings as the Trustee shall deem most effectual to protect and enforce any of such rights, either at law or in equity or in bankruptcy or otherwise, whether for the specific enforcement of any covenant or agreement contained in the Indenture or in aid of the exercise of any power granted in this Indenture, or to enforce any other legal or equitable right vested in the Trustee by this Indenture or by law. Nothing contained herein shall be deemed to authorize the Trustee to authorize or consent to or accept or adopt on behalf of any Securityholder any plan of reorganization, arrangement, adjustment or composition affecting the Securities of that series or the rights of any holder thereof or to authorize the Trustee to vote in respect of the claim of any Securityholder in any such proceeding.

Section 6.03 Application of Moneys Collected.

Any moneys collected by the Trustee pursuant to this Article with respect to a particular series of Securities shall be applied in the following order, at the date or dates fixed by the Trustee and, in case of the distribution of such moneys on account of principal (or premium, if any) or interest, upon presentation of the Securities of that series, and notation thereon of the payment, if only partially paid, and upon surrender thereof if fully paid:

FIRST: To the payment of costs and expenses of collection and of all amounts payable to the Trustee under Section 7.07;

SECOND: To the payment of the amounts then due and unpaid upon Securities of such series for principal (and premium, if any) and interest, in respect of which or for the benefit of which such money has been collected, ratably, without preference or priority of any kind, according to the amounts due and payable on such Securities for principal (and premium, if any) and interest, respectively.

THIRD: To the Company.

Section 6.04 Limitation on Suits.

No holder of any Security of any series shall have any right by virtue or by availing of any provision of this Indenture to institute any suit, action or proceeding in equity or at law upon or under or with respect to this Indenture or for the appointment of a receiver or trustee, or for any other remedy hereunder, unless

- (1) such holder previously shall have given to the Trustee written notice of an Event of Default and of the continuance thereof with respect to the Securities of such series specifying such Event of Default, as hereinbefore provided;
- (2) the holders of not less than 25% in aggregate principal amount of the Securities of such series then Outstanding shall have made written request upon the Trustee to institute such action, suit or proceeding in its own name as trustee hereunder;
- (3) such holder or holders shall have offered to the Trustee such reasonable indemnity as it may require against the costs, expenses and liabilities to be incurred therein or thereby; and
- (4) the Trustee for 60 days after its receipt of such notice, request and offer of indemnity, shall have failed to institute any such action, suit or proceeding and

during such 60 day period, the holders of a majority in principal amount of the Securities of that series do not give the Trustee a direction inconsistent with the request. Notwithstanding anything contained herein to the contrary, the right of any holder of any Security to receive payment of the principal of (and premium, if any) and interest on such Security, as therein provided, on the respective due dates expressed in such Security (or in the case of redemption, on the redemption date), or to institute suit for the enforcement of any such payment on or after such respective dates or redemption date, shall not be impaired or affected without the consent of such holder and by accepting a Security hereunder it is expressly

- (5) understood, intended and covenanted by the taker and holder of every Security of such series with every other such taker and holder and the Trustee, that no one or more holders of Securities of such series shall have any right in any manner whatsoever by virtue or by availing of any provision of this Indenture to affect, disturb or prejudice the rights of the holders of any other of such Securities, or to obtain or seek to obtain priority over or preference to any other such holder, or to enforce any right under this Indenture, except in the manner herein provided and for the equal, ratable and common benefit of all holders of Securities of such series. For the protection and enforcement of the provisions of this Section, each and every Securityholder and the Trustee shall be entitled to such relief as can be given either at law or in equity.

Section 6.05 Rights and Remedies Cumulative; Delay or Omission Not Waiver.

(a) Except as otherwise provided in Section 2.07, all powers and remedies given by this Article to the Trustee or to the Securityholders shall, to the extent permitted by law, be deemed cumulative and not exclusive of any other powers and remedies available to the Trustee or the holders of the Securities, by judicial proceedings or otherwise, to enforce the performance or observance of the covenants and agreements contained in this Indenture or otherwise established with respect to such Securities.

(b) No delay or omission of the Trustee or of any holder of any of the Securities to exercise any right or power accruing upon any Event of Default occurring and continuing as aforesaid shall impair any such right or power, or shall be construed to be a waiver of any such default or on acquiescence therein; and, subject to the provisions of Section 6.04, every power and remedy given by this Article or by law to the Trustee or the Securityholders may be exercised from time to time, and as often as shall be deemed expedient, by the Trustee or by the Securityholders.

Section 6.06 Control by Securityholders.

The holders of a majority in aggregate principal amount of the Securities of any series at the time Outstanding, determined in accordance with Section 8.01, shall have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising any trust or power conferred on the Trustee with respect to such series; provided, however, that such direction shall not be in conflict with any rule of law or with this Indenture or be unduly prejudicial to the rights of holders of Securities of any other series at the time Outstanding determined in accordance with Section 8.01. Subject to the provisions of Section 7.01, the Trustee shall have the right to decline to follow any such direction if the Trustee in good faith shall, by a Responsible Officer or Officers of the Trustee, determine that the proceeding so directed would involve the Trustee in personal liability. The holders of a majority in aggregate principal amount of the Securities of any series at the time Outstanding affected thereby, determined in accordance with Section 8.01, may on behalf of the holders of all of the Securities of such series waive any past default in the performance of any of the covenants contained herein or established pursuant to Section 2.01 with respect to such series and its consequences, except a default in the payment of the principal of (or premium, if any) or interest on, any of the Securities of that series as and when the same shall become due by the terms of such Securities otherwise than by acceleration (unless such default has been cured and a sum sufficient to pay all matured installments of interest and principal and any premium has been deposited with the Trustee (in accordance with Section 6.01(c)) or in respect of a covenant or provision hereof which under Article IX cannot be modified or amended without the consent of the holder of each Outstanding Security affected. Upon any such waiver, the default covered thereby shall be deemed to be cured for all purposes of this Indenture and the Company, the Trustee and the holders of the Securities of such series shall be restored to their former positions and rights hereunder, respectively; but no such waiver shall extend to any subsequent or other default or impair any right consequent thereon.

Section 6.07 Undertaking to Pay Costs.

All parties to this Indenture agree, and each holder of any Securities by such holder's acceptance thereof shall be deemed to have agreed, that any court may in its discretion require, in any suit for the enforcement of any right or remedy under this Indenture, or in any suit against the Trustee for any action taken or omitted by it as Trustee, the filing by any party litigant in such suit of an undertaking to pay the costs of such suit, and that such court may in its discretion assess reasonable costs, including reasonable attorneys' fees, against any party litigant in such suit, having due regard to the merits and good faith of the claims or defenses made by such party litigant; but the provisions of this Section shall not apply to any suit instituted by the Trustee, to any suit instituted by any Securityholder, or group of Securityholders, holding more than 25% in aggregate principal amount of the Outstanding Securities of any series, or to any suit instituted by any Securityholder for the enforcement of the payment of the principal of (or premium, if any) or interest on any Security of such series, on or after the respective due dates expressed in such Security or established pursuant to this Indenture.

**ARTICLE VII
CONCERNING THE TRUSTEE**

Section 7.01 Certain Duties and Responsibilities of Trustee.

(a) The Trustee, prior to the occurrence of an Event of Default with respect to the Securities of a series and after the curing of all Events of Default with respect to the Securities of that series that may have occurred, shall undertake to perform with respect to the Securities of such series such duties and only such duties as are specifically set forth in this Indenture, and no implied covenants shall be read into this Indenture against the Trustee. In case an Event of Default with respect to the Securities of a series has occurred (that has not been cured or waived), the Trustee shall exercise with respect to Securities of that series such of the rights and powers vested in it by this Indenture, and use the same degree of care and skill in their exercise, as a prudent man would exercise or use under the circumstances in the conduct of his own affairs.

(b) No provision of this Indenture shall be construed to relieve the Trustee from liability for its own negligent action, its own negligent failure to act, or its own willful misconduct, except that:

- prior to the occurrence of an Event of Default with respect to the Securities of a series and after the curing or waiving of all such Events of Default with respect to that series that may have occurred: the duties and obligations of the Trustee shall with respect to the Securities of such series be determined solely by the express provisions of this Indenture, and the Trustee shall not be liable with respect to the Securities of such series except for the performance of such duties and obligations as are specifically set forth in this Indenture, and no implied covenants or obligations shall
- (1) be read into this Indenture against the Trustee; and in the absence of bad faith on the part of the Trustee, the Trustee may with respect to the Securities of such series conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon any certificates or opinions furnished to the Trustee and conforming to the requirements of this Indenture; but in the case of any such certificates or opinions that by any provision hereof are specifically required to be furnished to the Trustee, the Trustee shall be under a duty to examine the same to determine whether or not they conform to the requirement of this Indenture;

- (2) the Trustee shall not be liable for any error of judgment made in good faith by a Responsible Officer or Responsible Officers of the Trustee, unless it shall be proved that the Trustee, was negligent in ascertaining the pertinent facts;
- the Trustee shall not be liable with respect to any action taken or omitted to be taken by it in good faith in accordance with the direction of the holders of not less than a majority in principal amount of the Securities of any series at the time Outstanding relating to the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising any trust or power conferred upon the Trustee under this Indenture with respect to the Securities of that series; and
- (3)
- None of the provisions contained in this Indenture shall require the Trustee to expend or risk its own funds or otherwise incur personal financial liability in the performance of any of its duties or in the exercise of any of its rights or powers, if there is reasonable ground for believing that the repayment of such funds or liability is not reasonably assured to it under the terms of this Indenture or adequate indemnity against such risk is not reasonably assured to it.
- (4)

Section 7.02 Notice of Defaults.

If a Default occurs hereunder with respect to Securities of any series and is known to a Responsible Officer of the Trustee, the Trustee shall give the holders of Securities of such series notice of such Default as and to the extent provided by the Trust Indenture Act; provided, however, that in the case of any Default of the character specified in clause (3) of Section 6.01(a) with respect to Securities of such series, no such notice to holders shall be given until at least 30 days after the occurrence thereof.

Section 7.03 Certain Rights of Trustee.

Except as otherwise provided in Section 7.01:

(a) The Trustee may rely and shall be protected in acting or refraining from acting upon any resolution, certificate, statement, instrument, opinion, report, notice, request, consent, order, approval, bond, security or other paper or document believed by it to be genuine and to have been signed or presented by the proper party or parties;

(b) Any request, direction, order or demand of the Company mentioned herein shall be sufficiently evidenced by a Board Resolution or an instrument signed in the name of the Company, by the President or any Vice President and by the Secretary or an Assistant Secretary or the Treasurer or an Assistant Treasurer thereof (unless other evidence in respect thereof is specifically prescribed herein);

(c) The Trustee may consult with counsel and the written advice of such counsel or any Opinion of Counsel shall be full and complete authorization and protection in respect of any action taken or suffered or omitted hereunder in good faith and in reliance thereon;

(d) The Trustee shall be under no obligation to exercise any of the rights or powers vested in it by this Indenture at the request, order or direction of any of the Securityholders, pursuant to the provisions of this Indenture, unless such Securityholders shall have offered to the Trustee reasonable security or indemnity against the costs, expenses and liabilities that may be incurred therein or thereby; nothing contained herein shall, however, relieve the Trustee of the obligation, upon the occurrence of an Event of Default with respect to a series of the Securities (that has not been cured or waived) to exercise with respect to Securities of that series such of the rights and powers vested in it by this Indenture, and to use the same degree of care and skill in their exercise, as a prudent man would exercise or use under the circumstances in the conduct of his own affairs;

(e) The Trustee shall not be liable for any action taken or omitted to be taken by it in good faith and believed by it to be authorized or within the discretion or rights or powers conferred upon it by this Indenture;

(f) The Trustee shall not be bound to make any investigation into the facts or matters stated in any resolution, certificate, statement, instrument, opinion, report, notice, request, consent, order, approval, bond, security, or other papers or documents, unless requested in writing so to do by the holders of not less than a majority in principal amount of the Outstanding Securities of the particular series affected thereby (determined as provided in Section 8.04); provided, however, that if the payment within a reasonable time to the Trustee of the costs, expenses or liabilities likely to be incurred by it in the making of such investigation is, in the opinion of the Trustee, not reasonably assured to the Trustee by the security afforded to it by the terms of this Indenture, the Trustee may require reasonable indemnity against such costs, expenses or liabilities as a condition to so proceeding. The reasonable expense of every such examination shall be paid by the Company or, if paid by the Trustee, shall be repaid by the Company upon demand; and

(g) The Trustee may execute any of the trusts or powers hereunder or perform any duties hereunder either directly or by or through agents or attorneys and the Trustee shall not be responsible for any misconduct or negligence on the part of any agent or attorney appointed with due care by it hereunder.

Section 7.04 Trustee Not Responsible for Recitals or Issuance or Securities.

(a) The recitals contained herein and in the Securities shall be taken as the statements of the Company, and the Trustee assumes no responsibility for the correctness of the same.

(b) The Trustee makes no representations as to the validity or sufficiency of this Indenture or of the Securities.

(c) The Trustee shall not be accountable for the use or application by the Company of any of the Securities or of the proceeds of such Securities, or for the use or application of any moneys paid over by the Trustee in accordance with any provision of this Indenture or established pursuant to Section 2.01, or for the use or application of any moneys received by any paying agent other than the Trustee.

Section 7.05 May Hold Securities.

The Trustee or any paying agent or Security Registrar, in its individual or any other capacity, may become the owner or pledgee of Securities with the same rights it would have if it were not Trustee, paying agent or Security Registrar.

Section 7.06 Moneys Held in Trust.

Subject to the provisions of Section 11.05, all moneys received by the Trustee shall, until used or applied as herein provided, be held in trust for the purposes for which they were received, but need not be segregated from other funds except to the extent required by law. The Trustee shall be under no liability for interest on any moneys received by it hereunder except such as it may agree with the Company to pay thereon.

Section 7.07 Compensation and Reimbursement.

(a) The Company covenants and agrees to pay to the Trustee, and the Trustee shall be entitled to, such reasonable compensation (which shall not be limited by any provision of law in regard to the compensation of a trustee of an express trust), as the Company, and the Trustee may from time to time agree in writing, for all services rendered by it in the execution of the trusts hereby created and in the exercise and performance of any of the powers and duties hereunder of the Trustee, and, except as otherwise expressly provided herein, the Company will pay or reimburse the Trustee upon its request for all reasonable expenses, disbursements and advances incurred or made by the Trustee in accordance with any of the provisions of this Indenture (including the reasonable compensation and the expenses and disbursements of its counsel and of all Persons not regularly in its employ) except any such expense, disbursement or advance as may arise from its negligence or bad faith. The Company also covenants to indemnify the Trustee (and its officers, agents, directors and employees) for, and to hold it harmless against, any loss, liability or expense incurred without negligence or bad faith on the part of the Trustee and arising out of or in connection with the acceptance or administration of this trust, including the costs and expenses of defending itself against any claim of liability in the premises.

(b) The obligations of the Company under this Section to compensate and indemnify the Trustee and to pay or reimburse the Trustee for expenses, disbursements and advances shall constitute additional indebtedness hereunder. Such additional indebtedness shall be secured by a lien prior to that of the Securities upon all property and funds held or collected by the Trustee as such, except funds held in trust for the benefit of the holders of particular Securities.

Section 7.08 Reliance on Officers' Certificate.

Except as otherwise provided in Section 7.01, whenever in the administration of the provisions of this Indenture the Trustee shall deem it necessary or desirable that a matter be proved or established prior to taking or suffering or omitting to take any action hereunder, such matter (unless other evidence in respect thereof be herein specifically prescribed) may, in the absence of negligence or bad faith on the part of the Trustee, be deemed to be conclusively proved and established by an Officers' Certificate delivered to the Trustee and such certificate, in the absence of negligence or bad faith on the part of the Trustee, shall be full warrant to the Trustee for any action taken, suffered or omitted to be taken by it under the provisions of this Indenture upon the faith thereof.

Section 7.09 Disqualification; Conflicting Interests.

If the Trustee has or shall acquire any “conflicting interest” within the meaning of Section 310(b) of the Trust Indenture Act, the Trustee and the Company shall in all respects comply with the provisions of Section 310(b) of the Trust Indenture Act, subject to the penultimate paragraph thereof.

Section 7.10 Corporate Trustee Required; Eligibility.

There shall at all times be a Trustee with respect to the Securities issued hereunder which shall at all times be a corporation organized and doing business under the laws of the United States of America or any State or Territory thereof or of the District of Columbia, or a corporation or other Person permitted to act as trustee by the Commission, authorized under such laws to exercise corporate trust powers, having a combined capital and surplus of at least 100 million U.S. dollars (\$100,000,000), and subject to supervision or examination by Federal, State, Territorial, or District of Columbia authority. If such corporation publishes reports of condition at least annually, pursuant to law or to the requirements of the aforesaid supervising or examining authority, then for the purposes of this Section, the combined capital and surplus of such corporation shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published. The Company may not, nor may any Person directly or indirectly controlling, controlled by, or under common control with the Company, serve as Trustee. In case at any time the Trustee shall cease to be eligible in accordance with the provisions of this Section, the Trustee shall resign immediately in the manner and with the effect specified in Section 7.11.

Section 7.11 Resignation and Removal; Appointment of Successor.

(a) The Trustee or any successor hereafter appointed, may at any time resign with respect to the Securities of one or more series by giving written notice thereof to the Company and by transmitting notice of resignation by mail, first class postage prepaid, to the Securityholders of such series, as their names and addresses appear upon the Security Register. Upon receiving such notice of resignation, the Company shall promptly appoint a successor trustee with respect to Securities of such series by written instrument, in duplicate, executed by order of the Board of Directors, one copy of which instrument shall be delivered to the resigning Trustee and one copy to the successor trustee. If no successor trustee shall have been so appointed and have accepted appointment within 30 days after the mailing of such notice of resignation, the resigning Trustee, at the expense of the Company may petition any court of competent jurisdiction for the appointment of a successor trustee with respect to Securities of such series, or any Securityholder of that series who has been a bona fide holder of a Security or Securities for at least six months may on behalf of himself and all others similarly situated, petition any such court for the appointment of a successor trustee. Such court may thereupon after such notice, if any, as it may deem proper and prescribe, appoint a successor trustee.

(b) In case at any time any one of the following shall occur:

- (1) the Trustee shall fail to comply with the provisions of Section 7.09 after written request therefor by the Company or by any Securityholder who has been a bona fide holder of a Security or Securities for at least six months; or
- (2) the Trustee shall cease to be eligible in accordance with the provisions of Section 7.10 and shall fail to resign after written request therefor by the Company or by any such Securityholder; or

the Trustee shall become incapable of acting, or shall be adjudged a bankrupt or insolvent, or commence a voluntary bankruptcy proceeding, or a receiver of the Trustee or of its property shall be appointed or consented to, or any public officer shall take charge or control of the Trustee or of its property or affairs for the purpose of rehabilitation, conservation or liquidation, then, in any such case, the Company may remove the Trustee with respect to all Securities and appoint a successor trustee by written instrument, in duplicate, executed by order of the Board of Directors, one

- (3) copy of which instrument shall be delivered to the Trustee so removed and one copy to the successor trustee, or, unless, in the case of a failure to comply with Section 7.09, the Trustee's duty to resign is stayed as provided in the penultimate paragraph of Section 310(b) of the Trust Indenture Act, any Securityholder who has been a bona fide holder of a Security or Securities for at least six months may, on behalf of that holder and all others similarly situated, petition any court of competent jurisdiction for the removal of the Trustee and the appointment of a successor trustee. Such court may thereupon after such notice, if any, as it may deem proper and prescribe, remove the Trustee and appoint a successor trustee.

(c) The holders of a majority in aggregate principal amount of the Securities of any series at the time Outstanding may at any time remove the Trustee with respect to such series by so notifying the Trustee and the Company and may appoint a successor Trustee for such series with the consent of the Company.

(d) Any resignation or removal of the Trustee and appointment of a successor trustee with respect to the Securities of a series pursuant to any of the provisions of this Section shall become effective upon acceptance of appointment by the successor trustee as provided in Section 7.12.

(e) Any successor trustee appointed pursuant to this Section may be appointed with respect to the Securities of one or more series or all of such series, and at any time there shall be only one Trustee with respect to the Securities of any particular series.

Section 7.12 Acceptance of Appointment By Successor.

(a) In case of the appointment hereunder of a successor trustee with respect to all Securities, every such successor trustee so appointed shall execute, acknowledge and deliver to the Company and to the retiring Trustee an instrument accepting such appointment, and thereupon the resignation or removal of the retiring Trustee shall become effective and such successor trustee, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Trustee; but, on the request of the Company or the successor trustee, such retiring Trustee shall, upon payment of its charges, execute and deliver an instrument transferring to such successor trustee all the rights, powers, and trusts of the retiring Trustee and shall duly assign, transfer and deliver to such successor trustee all property and money held by such retiring Trustee hereunder.

(b) In case of the appointment hereunder of a successor trustee with respect to the Securities of one or more (but not all) series, the Company, the retiring Trustee and each successor trustee with respect to the Securities of one or more series shall execute and deliver an indenture supplemental hereto wherein each successor trustee shall accept such appointment and which

- shall contain such provisions as shall be necessary or desirable to transfer and confirm to, and to vest in, each
- (1) successor trustee all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series to which the appointment of such successor trustee relates,

- shall contain such provisions as shall be deemed necessary or desirable to confirm that all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series as to which the retiring Trustee is not retiring shall continue to be vested in the retiring Trustee, and
- (2)

- shall add to or change any of the provisions of this Indenture as shall be necessary to provide for or facilitate the administration of the trusts hereunder by more than one Trustee, it being understood that nothing herein or in such supplemental indenture shall constitute such Trustees co-trustees of the same trust, that each such Trustee shall be trustee of a trust or trusts hereunder separate and apart from any trust or trusts hereunder administered by any other such Trustee and that no Trustee shall be responsible for any act or failure to act on the part of any other Trustee hereunder; and upon the execution and delivery of such supplemental indenture the resignation or removal of the retiring Trustee shall become effective to the extent provided therein, such retiring Trustee shall with respect to the
- (3) Securities of that or those series to which the appointment of such successor trustee relates have no further responsibility for the exercise of rights and powers or for the performance of the duties and obligations vested in the Trustee under this Indenture, and each such successor trustee, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series to which the appointment of such successor trustee relates; but, on request of the Company or any successor trustee, such retiring Trustee shall duly assign, transfer and deliver to such successor trustee, to the extent contemplated by such supplemental indenture, the property and money held by such retiring Trustee hereunder with respect to the Securities of that or those series to which the appointment of such successor trustee relates.

(c) Upon request of any such successor trustee, the Company shall execute any and all instruments for more fully and certainly vesting in and confirming to such successor trustee all such rights, powers and trusts referred to in paragraph (a) or (b) of this Section, as the case may be.

(d) No successor trustee shall accept its appointment unless at the time of such acceptance such successor trustee shall be qualified and eligible under this Article.

(e) Upon acceptance of appointment by a successor trustee as provided in this Section, the Company shall transmit notice of the succession of such trustee hereunder by mail, first class postage prepaid, to the Securityholders, as their names and addresses appear upon the Security Register. If the Company fails to transmit such notice within ten days after acceptance of appointment by the successor trustee, the successor trustee shall cause such notice to be transmitted at the expense of the Company.

Section 7.13 Merger, Conversion, Consolidation or Succession to Business.

Any corporation into which the Trustee may be merged or converted or with which it may be consolidated, or any corporation resulting from any merger, conversion or consolidation to which the Trustee shall be a party, or any corporation succeeding to the corporate trust business of the Trustee, shall be the successor of the Trustee hereunder, provided that such corporation shall be qualified under the provisions of Section 7.09 and eligible under the provisions of Section 7.10, without the execution or filing of any paper or any further act on the part of any of the parties hereto, anything herein to the contrary notwithstanding. In case any Securities shall have been authenticated, but not delivered, by the Trustee then in office, any successor by merger, conversion or consolidation to such authenticating Trustee may adopt such authentication and deliver the Securities so authenticated with the same effect as if such successor Trustee had itself authenticated such Securities.

Section 7.14 Preferential Collection of Claims Against the Company.

The Trustee shall comply with Section 311(a) of the Trust Indenture Act, excluding any creditor relationship described in Section 311(b) of the Trust Indenture Act. A Trustee who has resigned or been removed shall be subject to Section 311(a) of the Trust Indenture Act to the extent included therein.

**ARTICLE VIII
CONCERNING THE SECURITYHOLDERS**

Section 8.01 Evidence of Action by Securityholders.

Whenever in this Indenture it is provided that the holders of a majority or specified percentage in aggregate principal amount of the Securities of a particular series may take any action (including the making of any demand or request, the giving of any notice, consent or waiver or the taking of any other action), the fact that at the time of taking any such action the holders of such majority or specified percentage of that series have joined therein may be evidenced by any instrument or any number of instruments of similar tenor executed by such holders of Securities of that series in Person or by agent or proxy appointed in writing. If the Company shall solicit from the Securityholders of any series any request, demand, authorization, direction, notice, consent, waiver or other action, the Company may, at its option, as evidenced by an Officers' Certificate, fix in advance a record date for such series for the determination of Securityholders entitled to give such request, demand, authorization, direction, notice, consent, waiver or other action, but the Company shall have no obligation to do so. If such a record date is fixed, such request, demand, authorization, direction, notice, consent, waiver or other action may be given before or after the record date, but only the Securityholders of record at the close of business on the record date shall be deemed to be Securityholders for the purposes of determining whether Securityholders of the requisite proportion of Outstanding Securities of that series have authorized or agreed or consented to such request, demand, authorization, direction, notice, consent, waiver or other action, and for that purpose the Outstanding Securities of that series shall be computed as of the record date; provided, however, that no such authorization, agreement or consent by such Securityholders on the record date shall be deemed effective unless it shall become effective pursuant to the provisions of this Indenture not later than six months after the record date.

Section 8.02 Proof of Execution by Securityholders.

Subject to the provisions of Section 7.01, proof of the execution of any instrument by a Securityholder (such proof will not require notarization) or his agent or proxy and proof of the holding by any Person of any of the Securities shall be sufficient if made in the following manner:

- (a) The fact and date of the execution by any such Person of any instrument may be proved in any reasonable manner acceptable to the Trustee.
- (b) The ownership of Securities shall be proved by the Security Register of such Securities or by a certificate of the Security Registrar thereof.
- (c) The Trustee may require such additional proof of any matter referred to in this Section as it shall deem necessary.

Section 8.03 Who May be Deemed Owners.

Prior to the due presentment for registration of transfer of any Security, the Company, the Trustee, any paying agent and any Security Registrar may deem and treat the Person in whose name such Security shall be registered upon the books of the Company as the absolute owner of such Security (whether or not such Security shall be overdue and notwithstanding any notice of ownership or writing thereon made by anyone other than the Security Registrar) for the purpose of receiving payment of or on account of the principal of (and premium, if any) and (subject to Section 2.03) interest on such Security and for all other purposes; and neither the Company nor the Trustee nor any paying agent nor any Security Registrar shall be affected by any notice to the contrary.

Section 8.04 Certain Securities Owned by Company Disregarded.

In determining whether the holders of the requisite aggregate principal amount of Securities of a particular series have concurred in any direction, consent of waiver under this Indenture, the Securities of that series that are owned by the Company or any other obligor on the Securities of that series or by any Person directly or indirectly controlling or controlled by or under common control with the Company or any other obligor on the Securities of that series shall be disregarded and deemed not to be Outstanding for the purpose of any such determination, except that for the purpose of determining whether the Trustee shall be protected in relying on any such direction, consent or waiver, only Securities of such series that the Trustee actually knows are so owned shall be so disregarded. The Securities so owned that have been pledged in good faith may be regarded as Outstanding for the purposes of this Section, if the pledgee shall establish to the satisfaction of the Trustee the pledgee's right so to act with respect to such Securities and that the pledgee is not a Person directly or indirectly controlling or controlled by or under direct or indirect common control with the Company or any such other obligor. In case of a dispute as to such right, any decision by the Trustee taken upon the advice of counsel shall be full protection to the Trustee.

Section 8.05 Actions Binding on Future Securityholders.

At any time prior to (but not after) the evidencing to the Trustee, as provided in Section 8.01, of the taking of any action by the holders of the majority or percentage in aggregate principal amount of the Securities of a particular series specified in this Indenture in connection with such action, any holder of a Security of that series that is shown by the evidence to be included in the Securities the holders of which have consented to such action may, by filing written notice with the Trustee, and upon proof of holding as provided in Section 8.02, revoke such action so far as concerns such Security. Except as aforesaid any such action taken by the holder of any Security shall be conclusive and binding upon such holder and upon all future holders and owners of such Security, and of any Security issued in exchange therefor, on registration of transfer thereof or in place thereof, irrespective of whether or not any notation in regard thereto is made upon such Security. Any action taken by the holders of the majority or percentage in aggregate principal amount of the Securities of a particular series specified in this Indenture in connection with such action shall be conclusively binding upon the Company, the Trustee and the holders of all the Securities of that series.

ARTICLE IX SUPPLEMENTAL INDENTURES

Section 9.01 Supplemental Indentures Without the Consent of Securityholders.

In addition to any supplemental indenture otherwise authorized by this Indenture, the Company and the Trustee may from time to time and at any time enter into an indenture or indentures supplemental hereto (which shall conform to the provisions of the Trust Indenture Act as then in effect), without the consent of the Securityholders, for one or more of the following purposes:

- (1) to cure any ambiguity, defect, or inconsistency herein or in the Securities of any series;

- (2) to comply with Article X;
- (3) to provide for uncertificated Securities in addition to or in place of certificated Securities;
to add to the covenants of the Company for the benefit of the holders of all or any series of Securities (and if such covenants are to be for the benefit of less than all series of Securities, stating that such covenants are expressly being included solely for the benefit of such series) or to surrender any right or power herein conferred upon the Company or to
- (4) add any additional Events of Default for the benefit of the holders of all or any series of Securities (and if such additional Events of Default are to be for the benefit of less than all series of Securities, stating that such additional Events of Default are expressly being included solely for the benefit of such series);
- (5) to add to, delete from, or revise the conditions, limitations, and restrictions on the authorized amount, terms, or purposes of issue, authentication, and delivery of Securities (prior to the issuance thereof), as herein set forth;
- (6) to make any change that does not adversely affect the rights of any Securityholder in any material respect;
to provide for the issuance of and establish the form and terms and conditions of the Securities of any series as provided in
- (7) Section 2.01, to establish the form of any certifications required to be furnished pursuant to the terms of this Indenture or any series of Securities, or to add to the rights of the holders of any series of Securities; or
to evidence and provide for the acceptance of appointment hereunder by a successor Trustee with respect to the Securities
- (8) of one or more series and to add to or change any of the provisions of this Indenture as shall be necessary to provide for or facilitate the administration of the trusts hereunder by more than one Trustee, pursuant to the requirements of Section 7.12.

The Trustee is hereby authorized to join with the Company in the execution of any such supplemental indenture, and to make any further appropriate agreements and stipulations that may be therein contained, but the Trustee shall not be obligated to enter into any such supplemental indenture that affects the Trustee's own rights, duties or immunities under this Indenture or otherwise.

Any supplemental indenture authorized by the provisions of this Section may be executed by the Company and the Trustee without the consent of the holders of any of the Securities at the time Outstanding, notwithstanding any of the provisions of Section 9.02.

Section 9.02 Supplemental Indentures With Consent of Securityholders.

With the consent (evidenced as provided in Section 8.01) of the holders of not less than a majority in aggregate principal amount of the Securities of each series affected by such supplemental indenture or indentures at the time Outstanding, the Company and the Trustee may from time to time and at any time enter into an indenture or indentures supplemental hereto (which shall conform to the provisions of the Trust Indenture Act as then in effect) for the purpose of adding any provisions to or changing in any manner or eliminating any of the provisions of this Indenture or of any supplemental indenture or of modifying in any manner not covered by Section 9.01 the rights of the holders of the Securities of such series under this Indenture; provided, however, that no such supplemental indenture shall, without the consent of the holders of each Security then Outstanding and affected thereby:

(1) change the maturity of the principal of, or any installment of principal of or interest on, any Security, or reduce the principal amount thereof or the rate of interest thereon or any premium payable upon the redemption thereof, or reduce the amount of the principal of an Original Issue Discount Security or any other Security which would be due and payable upon a declaration of acceleration of the maturity thereof pursuant to Section 6.01 or change the coin or currency in which any Security or any premium or interest thereon is payable, or impair the right to institute suit for the enforcement of any such payment on or after the maturity thereof (or, in the case of redemption, on or after the redemption date), or

(2) reduce the percentage in principal amount of the Outstanding Securities of any series, the consent of whose holders is required for any such supplemental indenture, or the consent of whose holders is required for any waiver of certain defaults hereunder and their consequences provided for in this Indenture, or

(3) modify any of the provisions of this Section or Section 6.06 relating to waivers of default, except to increase any such percentage or to provide that certain other provisions of this Indenture cannot be modified or waived without the consent of the holder of each Outstanding Security affected thereby; provided, however, that this clause shall not be deemed to require the consent of any holder with respect to changes in the references to “the Trustee” and concomitant changes in this Section, or the deletion of this proviso, in accordance with the requirements of Sections 7.12 and 9.01(8).

A supplemental indenture which changes or eliminates any covenant or other provision of this Indenture which has expressly been included solely for the benefit of one or more particular series of Securities, or which modifies the rights of the holders of Securities of such series with respect to such covenant or other provision, shall be deemed not to affect the rights under this Indenture of the holders of Securities of any other series. It shall not be necessary for the consent of the Securityholders of any series affected thereby under this Section to approve the particular form of any proposed supplemental indenture, but it shall be sufficient if such consent shall approve the substance thereof.

Section 9.03 Effect of Supplemental Indentures.

Upon the execution of any supplemental indenture pursuant to the provisions of this Article or of Section 10.01, this Indenture shall, with respect to such series, be and be deemed to be modified and amended in accordance therewith and the respective rights, limitations of rights, obligations, duties and immunities under this Indenture of the Trustee, the Company and the holders of Securities of the series affected thereby shall thereafter be determined, exercised and enforced hereunder subject in all respects to such modifications and amendments, and all the terms and conditions of any such supplemental indenture shall be and be deemed to be part of the terms and conditions of this Indenture for any and all purposes.

Section 9.04 Securities Affected by Supplemental Indentures.

Securities of any series, affected by a supplemental indenture, authenticated and delivered after the execution of such supplemental indenture pursuant to the provisions of this Article or of Section 10.01, may bear a notation in form approved by the Company, provided such form meets the requirements of any exchange upon which such series may be listed, as to any matter provided for in such supplemental indenture. If the Company shall so determine, new Securities of that series so modified as to conform, in the opinion of the Board of Directors of the Company, to any modification of this Indenture contained in any such supplemental indenture may be prepared by the Company, authenticated by the Trustee and delivered in exchange for the Securities of that series then Outstanding.

Section 9.05 Execution of Supplemental Indentures.

Upon the request of the Company, accompanied by its Board Resolutions authorizing the execution of any such supplemental indenture, and upon the filing with the Trustee of evidence of the consent of Securityholders required to consent thereto as aforesaid, the Trustee shall join with the Company in the execution of such supplemental indenture unless such supplemental indenture affects the Trustee's own rights, duties or immunities under this Indenture or otherwise, in which case the Trustee may in its discretion but shall not be obligated to enter into such supplemental indenture.

Promptly after the execution by the Company and the Trustee of any supplemental indenture pursuant to the provisions of this Section, the Trustee shall transmit by mail, first class postage prepaid, a notice, setting forth in general terms the substance of such supplemental indenture, to the Securityholders of all series affected thereby as their names and addresses appear upon the Security Register. Any failure of the Trustee to mail such notice, or any defect therein, shall not, however, in any way impair or affect the validity of any such supplemental indenture.

ARTICLE X
SUCCESSOR ENTITY

Section 10.01 Company May Consolidate, Etc.

Nothing contained in this Indenture or in any of the Securities shall prevent any consolidation or merger of the Company with or into any other Person (whether or not affiliated with the Company) or successive consolidations or mergers in which the Company or its successor or successors shall be a party or parties, or shall prevent any sale, conveyance, transfer or other disposition of the property of the Company or its successor or successors as an entirety, or substantially as an entirety, to any other Person (whether or not affiliated with the Company or its successor or successors) authorized to acquire and operate the same; provided, however, the Company hereby covenants and agrees that, upon any such consolidation or merger (in each case, if the Company is not the survivor of such transaction), sale, conveyance, transfer or other disposition, the due and punctual payment of the principal of (and premium, if any) and interest on all of the Securities of all series in accordance with the terms of each series, according to their tenor and the due and punctual performance and observance of all the covenants and conditions of this Indenture or established with respect to each series of Securities pursuant to Section 2.01 to be kept or performed by the Company shall be expressly assumed, by supplemental indenture (which shall conform to the provisions of the Trust Indenture Act, as then in effect) satisfactory in form to the Trustee executed and delivered to the Trustee by the entity formed by such consolidation, or into which the Company shall have been merged, or by the entity which shall have acquired such property.

Section 10.02 Successor Entity Substituted.

(a) In case of any such consolidation, merger, sale, conveyance, transfer or other disposition and upon the assumption by the successor entity by supplemental indenture, executed and delivered to the Trustee and satisfactory in form to the Trustee, of the due and punctual payment of the principal of (and premium, if any) and interest on all of the Securities of all series Outstanding and the due and punctual performance of all of the covenants and conditions of this Indenture or established with respect to each series of the Securities pursuant to Section 2.01 to be performed by the Company, such successor entity shall succeed to and be substituted for the Company with the same effect as if it had been named as the Company herein, and thereupon the predecessor corporation shall be relieved of all obligations and covenants under this Indenture and the Securities.

(b) In case of any such consolidation, merger, sale, conveyance, transfer or other disposition such changes in phraseology and form (but not in substance) may be made in the Securities thereafter to be issued as may be appropriate.

(c) Nothing contained in this Article shall require any action by the Company in the case of a consolidation or merger of any Person into the Company where the Company is the survivor of such transaction, or the acquisition by the Company, by purchase or otherwise, of all or any part of the property of any other Person (whether or not affiliated with the Company).

Section 10.03 Evidence of Consolidation, Etc. to Trustee.

The Trustee, subject to the provisions of Section 7.01, may receive an Opinion of Counsel as conclusive evidence that any such consolidation, merger, sale, conveyance, transfer or other disposition, and any such assumption, comply with the provisions of this Article.

ARTICLE XI
SATISFACTION AND DISCHARGE; DEFEASANCE

Section 11.01 Satisfaction and Discharge.

This Indenture will be discharged and will cease to be of further effect with respect to a series of Securities (except as to any surviving rights of registration of transfer or exchange of such series of Securities herein expressly provided for), and the Trustee, at the expense of the Company, shall execute proper instruments acknowledging satisfaction and discharge of this Indenture with respect to such series, when:

- either (a) all Securities of that series theretofore authenticated and delivered (other than (i) any Securities that shall have been destroyed, lost or stolen and that shall have been replaced or paid as provided in Section 2.07 and (ii) Securities for whose payment money or noncallable Governmental Obligations have theretofore been deposited in trust or segregated and held in trust by the Company and thereafter repaid to the Company or discharged from such trust, as provided in Section 11.05) have been delivered to the Trustee for cancellation; or (b) all Securities of such series not theretofore delivered to the Trustee for cancellation (i) have become due and payable, or (ii) will by their terms become due and payable within one year or (iii) are to be called for redemption within one year under arrangements satisfactory to the Trustee for the giving of
- (1) notice of redemption, and the Company shall deposit or cause to be deposited with the Trustee as trust funds in trust for the purpose (x) moneys in an amount, or (y) noncallable Governmental Obligations the scheduled principal of and interest on which in accordance with their terms will provide, not later than the due date of any payment, money in an amount, or (z) a combination thereof, sufficient, in the case of (y) or (z), in the opinion of a nationally recognized firm of independent public accountants expressed in a written certification thereof delivered to the Trustee, to pay and discharge, at maturity or upon redemption, all Securities of that series not theretofore delivered to the Trustee for cancellation, including principal (and premium, if any) and interest due or to become due to such date of maturity or date fixed for redemption, as the case may be;
 - (2) the Company has paid or caused to be paid all other sums payable hereunder with respect to such series by the Company; and
 - (3) the Company has delivered to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that all the conditions precedent herein provided for relating to the satisfaction and discharge of this Indenture with respect to such series of Securities have been complied with.

Notwithstanding the satisfaction and discharge of this Indenture with respect to a series of Securities, the obligations of the Trustee under Section 7.07 and, if money shall have been deposited with the Trustee pursuant to subclause (y) of clause (1) of this Section, the obligations of the Trustee under Sections 11.03 and 11.05 shall survive.

Section 11.02 Defeasance.

The Company may, at its option and at any time (including notwithstanding the exercise by the Company of a Covenant Defeasance (as defined herein)), elect to have its obligations discharged with respect to a series of the Securities (“Legal Defeasance”). Such Legal Defeasance means that the Company shall be deemed to have paid and discharged the entire indebtedness represented by such series of Securities, except for (a) the rights of holders to receive payments in respect of the principal of (and premium, if any) and interest on the Securities when such payments are due solely from the trust fund described in this Section, (b) the Company’s obligations with respect to such series of Securities concerning issuing temporary Securities, registration of transfer or exchange of such series of Securities, mutilated, destroyed, lost or stolen Securities of such series and the maintenance of an office or agency for payments, (c) the rights, powers, trust, duties and immunities of the Trustee and the Company’s obligations in connection therewith and (d) the Legal Defeasance provisions of this Indenture. In addition, the Company may, at its option and at any time, elect to have the obligations of the Company released with respect to covenants provided with respect to such series of Securities under Section 2.01(15), 9.01(4) and 9.01(7) of this Indenture (“Covenant Defeasance”) and thereafter any omission to comply with such obligations shall not constitute a Default or Event of Default with respect to such series of Securities. In the event of Covenant Defeasance, those events described under Section 6.01(a) with respect to the foregoing covenants will no longer constitute an Event of Default with respect to such series of Securities.

In order to exercise either Legal Defeasance or Covenant Defeasance:

- the Company must irrevocably deposit with the Trustee, in trust, for the benefit of the holders of such series, (A) moneys in an amount, or (B) noncallable Governmental Obligations the scheduled principal of and interest on which in accordance with their terms will provide, not later than the due date of any payment, money in an amount, or (C) a combination thereof,
- (1) sufficient, in the case of (B) or (C), in the opinion of a nationally recognized firm of independent public accountants expressed in a written certification thereof delivered to the Trustee, to pay and discharge, at maturity or upon redemption, the principal of (and premium, if any) and interest on such series of Securities on the stated date for payment thereof or on the applicable redemption date, as the case may be;

- in the case of Legal Defeasance, the Company shall have delivered to the Trustee an Opinion of Counsel confirming that (a) the Company has received from, or there has been published by, the Internal Revenue Service a ruling or (b) since the date of this Indenture, there has been a change in the applicable federal income tax law, in either case to the effect that, and
- (2) based thereon such Opinion of Counsel shall confirm that, the holders of such series of Securities will not recognize income, gain or loss for federal income tax purposes as a result of such Legal Defeasance and will be subject to federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such Legal Defeasance had not occurred;

- in the case of Covenant Defeasance, the Company shall have delivered to the Trustee an Opinion of Counsel confirming that the holders of such series of Securities will not recognize income, gain or loss for federal income tax purposes as a result of such Covenant Defeasance and will be subject to federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such Covenant Defeasance had not occurred;
- (3)

- no Default or Event of Default with respect to the Securities of such series shall have occurred and be continuing on the
- (4) date of such deposit or insofar as Events of Default under clauses (4) and (5) of Section 6.01(a) are concerned, at any time in the period ending on the 91st day after the date of deposit;
- the Company shall have delivered to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that all
- (5) conditions precedent provided for or relating to the Legal Defeasance or the Covenant Defeasance, as the case may be, have been complied with; and
- if such series of Securities are to be redeemed prior to final maturity (other than from mandatory sinking fund payments or
- (6) analogous payments), notice of such redemption shall have been duly given pursuant to this Indenture or provision therefor satisfactory to the Trustee shall have been made.

Section 11.03 Deposited Moneys to be Held in Trust.

All moneys or Governmental Obligations deposited with the Trustee pursuant to Sections 11.01 or 11.02 shall be held in trust and shall be available for payment as due, either directly or through any paying agent (including the Company acting as its own paying agent), to the holders of the particular series of Securities for the payment or redemption of which such moneys or Governmental Obligations have been deposited with the Trustee.

Section 11.04 Payment of Moneys Held by Paying Agents.

In connection with the satisfaction and discharge of this Indenture all moneys or Governmental Obligations then held by any paying agent under the provisions of this Indenture shall, upon demand of the Company, be paid to the Trustee and thereupon such paying agent shall be released from all further liability with respect to such moneys or Governmental Obligations.

Section 11.05 Repayment to Company.

Any moneys or Governmental Obligations deposited with any paying agent or the Trustee, or then held by the Company, in trust for payment of principal of (or premium, if any) or interest on the Securities of a particular series that are not applied but remain unclaimed by the holders of such Securities for at least two years after the date upon which the principal of (and premium, if any) or interest on such Securities shall have respectively become due and payable, shall be repaid to the Company on May 31 of each year or (if then held by the Company) shall be discharged from such trust; and thereupon the paying agent and the Trustee shall be released from all further liability with respect to such moneys or Governmental Obligations, and the holder of any of the Securities entitled to receive such payment shall thereafter, as an unsecured general creditor, look only to the Company for the payment thereof as an unsecured general creditor, unless an abandoned property law designates another Person.

ARTICLE XII
IMMUNITY OF INCORPORATORS, STOCKHOLDERS, OFFICERS AND DIRECTORS

Section 12.01 No Recourse.

No recourse under or upon any obligation, covenant or agreement of this Indenture, or of any Security, or for any claim based thereon or otherwise in respect thereof, shall be had against any incorporator, stockholder, officer or director, past, present or future as such, of the Company or of any predecessor or successor corporation, either directly or through the Company or any such predecessor or successor corporation, whether by virtue of any constitution, statute or rule of law, or by the enforcement of any assessment or penalty or otherwise; it being expressly understood that this Indenture and the obligations issued hereunder are solely corporate obligations, and that no such personal liability whatever shall attach to, or is or shall be incurred by, the incorporators, stockholders, officers or directors as such, of the Company or of any predecessor or successor corporation, or any of them, because of the creation of the indebtedness hereby authorized, or under or by reason of the obligations, covenants or agreements contained in this Indenture or in any of the Securities or implied therefrom; and that any and all such personal liability of every name and nature, either at common law or in equity or by constitution or statute, of, and any and all such rights and claims against, every such incorporator, stockholder, officer or director as such, because of the creation of the indebtedness hereby authorized, or under or by reason of the obligations, covenants or agreements contained in this Indenture or in any of the Securities or implied therefrom, are hereby expressly waived and released as a condition of, and as a consideration for, the execution of this Indenture and the issuance of such Securities.

ARTICLE XIII
MISCELLANEOUS PROVISIONS

Section 13.01 Effect on Successors and Assigns.

All the covenants, stipulations, promises and agreements in this Indenture contained by or on behalf of the Company shall bind its successors and assigns, whether so expressed or not.

Section 13.02 Actions by Successor.

Any act or proceeding by any provision of this Indenture authorized or required to be done or performed by any board, committee or officer of the Company shall and may be done and performed with like force and effect by the corresponding board, committee or officer of any corporation that shall at the time be the lawful successor of the Company.

Section 13.03 Surrender of Company Powers.

The Company by instrument in writing executed by authority of its Board of Directors and delivered to the Trustee may surrender any of the powers reserved to the Company, and thereupon such power so surrendered shall terminate both as to the Company and as to any successor corporation.

Section 13.04 Notices.

Except as otherwise expressly provided herein any notice or demand that by any provision of this Indenture is required or permitted to be given or served by the Trustee or by the holders of Securities to or on the Company may be given or served by being deposited first class postage prepaid in a post-office letterbox addressed (until another address is filed in writing by the Company with the Trustee), as follows:

If to the Company, to:

Human Genome Sciences, Inc.
14200 Shady Grove Road,
Rockville, Maryland 20850-7464
Facsimile No.: (301) 517-8831
Attention: General Counsel

DLA Piper
6225 Smith Avenue,
Baltimore, MD 21209
Facsimile No.: (410) 580-3001
Attention: Robert W. (Jay) Smith, Jr. and Jason C. Harmon

If to the Trustee, to:

The Bank of New York Mellon Trust Company, N.A.
525 William Penn Place,
38th Floor, Pittsburgh,
PA 15259,
Attn: Corporate Trust
Facsimile No.: (412) 234-7535

Any notice, election, request or demand by the Company or any Securityholder to or upon the Trustee shall be deemed to have been sufficiently given or made, for all purposes, if given or made in writing at the Corporate Trust Office of the Trustee.

The Company or the Trustee by notice to the other may designate additional or different addresses for subsequent notices or communications.

Any notice or communication mailed to a holder shall be mailed by first-class mail or delivered by guaranteed overnight courier or by other electronic means to it at its address shown on the register kept by the primary Security Registrar. Any notice or communication shall also be so mailed to any Person described in Trust Indenture Act Section 313(c), to the extent required by the Trust Indenture Act.

Failure to mail a notice or communication to a holder or any defect in it shall not affect its sufficiency with respect to other holders. If a notice or communication to a holder is mailed in the manner provided above, it is duly given, whether or not the addressee receives it.

If the Company mails a notice or communication to holders, it shall mail a copy to the Trustee and each Agent at the same time.

Section 13.05 Governing Law.

THE INDENTURE AND THIS SECURITY, AND ANY CLAIM, CONTROVERSY OR DISPUTE ARISING UNDER OR RELATED TO THE INDENTURE OR THIS SECURITY, SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK.

Section 13.06 Treatment of Securities as Debt.

It is intended that the Securities will be treated as indebtedness and not as equity for federal income tax purposes. The provisions of this Indenture shall be interpreted to further this intention.

Section 13.07 Compliance Certificates and Opinions.

(a) Upon any application or demand by the Company to the Trustee to take any action under any of the provisions of this Indenture, the Company, shall furnish to the Trustee an Officers' Certificate stating that all conditions precedent provided for in this Indenture relating to the proposed action have been complied with and an Opinion of Counsel stating that in the opinion of such counsel all such conditions precedent have been complied with.

(b) Each certificate or opinion provided for in this Indenture and delivered to the Trustee with respect to compliance with a condition or covenant in this Indenture shall include

- (1) a statement that the Person making such certificate or opinion has read such covenant or condition;
- (2) a brief statement as to the nature and scope of the examination or investigation upon which the statements or opinions contained in such certificate or opinion are based;
a statement that, in the opinion of such Person, he has made such examination or investigation as is necessary to
- (3) enable him to express an informed opinion as to whether or not such covenant or condition has been complied with;
and
- (4) a statement as to whether or not, in the opinion of such Person, such condition or covenant has been complied with.

Section 13.08 Payments on Business Days.

Except as provided pursuant to Section 2.01 pursuant to a Board Resolution, and as set forth in an Officers' Certificate, or established in one or more indentures supplemental to this Indenture, in any case where the date of maturity of interest or principal of any Security or the date of redemption of any Security shall not be a Business Day, then payment of interest or principal (and premium, if any) may be made on the next succeeding Business Day with the same force and effect as if made on the nominal date of maturity or redemption, and no interest shall accrue for the period after such nominal date.

Section 13.09 Conflict with Trust Indenture Act.

If and to the extent that any provision of this Indenture limits, qualifies or conflicts with the duties imposed by Sections 310 to 317, inclusive, of the Trust Indenture Act, such imposed duties shall control. If any provision of this Indenture modifies or excludes any provision of the Trust Indenture Act which may be so modified or excluded, the latter provision shall be deemed to apply to this Indenture as so modified or to be excluded, as the case may be.

Section 13.10 Counterparts.

This Indenture may be executed in any number of counterparts, each of which shall be an original, but such counterparts shall together constitute one and the same instrument.

Section 13.11 Separability.

In case any one or more of the provisions contained in this Indenture or in the Securities of any series shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions of this Indenture or of such Securities, but this Indenture and such Securities shall be construed as if such invalid or illegal or unenforceable provision had never been contained herein or therein.

Section 13.12 Assignment.

The Company will have the right at all times to assign any of its rights or obligations under this Indenture to a direct or indirect wholly-owned Subsidiary of the Company, provided that, in the event of any such assignment, the Company, will remain liable for all such obligations. Subject to the foregoing, the Indenture is binding upon and inures to the benefit of the parties thereto and their respective successors and assigns. This Indenture may not otherwise be assigned by the parties thereto.

IN WITNESS WHEREOF, the parties hereto have caused this Indenture to be duly executed all as of the day and year first above written.

HUMAN GENOME SCIENCES, INC.

By: /s/ David P. Southwell

Name: David P. Southwell

Title: Executive Vice President and Chief Financial Officer

THE BANK OF NEW YORK MELLON
TRUST COMPANY, N.A., as Trustee

By: /s/ Natalie Lawrence

Name: Natalie Lawrence

Title: Associate

HUMAN GENOME SCIENCES, INC.

FIRST SUPPLEMENTAL INDENTURE
DATED AS OF NOVEMBER 7, 2011

To

INDENTURE DATED AS OF NOVEMBER 7, 2011

THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A.,
AS TRUSTEE

3.00% CONVERTIBLE SENIOR NOTES DUE 2018

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EXHIBIT

Exhibit A

Form of Security

A-1

FIRST SUPPLEMENTAL INDENTURE, dated as of November 7, 2011, between HUMAN GENOME SCIENCES, INC., a Delaware corporation (the “**Company**”), and THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., a national banking association, as Trustee.

RECITALS OF THE COMPANY

WHEREAS, the Company and the Trustee executed and delivered an Indenture, dated as of November 7, 2011 (the “**Original Indenture**”) to provide for the issuance by the Company from time to time of its senior unsecured debt securities (herein called the “**Debt Securities**”), to be issued in one or more series as provided in the Original Indenture;

WHEREAS, no Debt Security of any series has been created under the Original Indenture prior to the date of execution of this First Supplemental Indenture; and

WHEREAS, under the Original Indenture, a new series of senior notes may at any time be established in or pursuant to a Board Resolution, and set forth in an Officers’ Certificate or one or more indentures supplemental to the Original Indenture;

WHEREAS, the Company proposes to create under the Original Indenture pursuant to this First Supplemental Indenture a new series of convertible senior notes and to add new provisions to, and change and eliminate certain existing provisions of, the Original Indenture in respect of such new series of convertible senior notes;

WHEREAS, additional senior unsecured notes of other series hereafter established, except as may be limited in the Original Indenture as at the time supplemented and modified, may be issued from time to time pursuant to the Indenture as at the time supplemented and modified;

WHEREAS, all conditions under the Original Indenture necessary to authorize the execution and delivery of this First Supplemental Indenture and make it a valid and binding obligation of the Company in accordance with its terms, have been done or performed.

NOW, THEREFORE, THIS FIRST SUPPLEMENTAL INDENTURE WITNESSETH, for and in consideration of the premises set forth herein and for other good and valuable consideration the sufficiency of which is hereby acknowledged, the Company and the Trustee agree as follows for the benefit of each other and for the equal and ratable benefit of the Holders of the Company’ s 3.00% Convertible Senior Notes due 2018 (as are issued under this Indenture, and as amended or supplemented from time to time, the “**Securities**”) to supplement the Original Indenture as follows:

ARTICLE 1 ESTABLISHMENT OF SERIES

Section 1.01. *Establishment.*

(a) Pursuant to Sections 2.01 and 9.01 of the Original Indenture there is hereby established a new series of senior unsecured notes to be issued under the Indenture, designated as the Company’ s 3.00% Convertible Senior Notes due 2018.

(b) Each Security shall be dated the date of authentication thereof and shall bear interest from the date of original issuance thereof or from the most recent Interest Payment Date to which interest has been paid or duly provided for.

(c) The Securities and the Trustee's certificate of authentication shall be substantially in the respective forms set forth in Exhibit A, which Exhibit is incorporated in and made part of this Indenture. The Securities may have notations, legends or endorsements required by law, stock exchange rule or usage. The Company shall provide any such notations, legends or endorsements to the Trustee in writing. Each Security shall be dated the date of its authentication. The terms and provisions contained in the Securities shall constitute, and are hereby expressly made, a part of this Indenture, and the Company and the Trustee, by their execution and delivery of this Indenture, expressly agree to such terms and provisions and to be bound thereby. However, to the extent any provision of any Security conflicts with the express provisions of this Indenture, the provisions of this Indenture shall govern and be controlling.

(d) All of the Securities shall be issued initially in the form of one or more Global Securities, which shall be deposited on behalf of the purchasers of the Securities represented thereby with the Trustee, at its Corporate Trust Office, as custodian for the depository, The Depository Trust Company ("**DTC**") (such depository, or any successor thereto, being hereinafter referred to as the "**Depository**"), and registered in the name of its nominee, Cede & Co., duly executed by the Company and authenticated by the Trustee as hereinafter provided.

Each Global Security shall represent such of the outstanding Securities as shall be specified therein and each shall provide that it shall represent the aggregate amount of outstanding Securities from time to time reflected in the records of the Trustee, subject in each case to compliance with the Applicable Procedures, and that the aggregate amount of outstanding Securities represented thereby may from time to time be reduced or increased, as appropriate, to reflect exchanges, purchases or conversions of such Securities. Any adjustment of the aggregate principal amount of a Global Security to reflect the amount of any increase or decrease in the amount of outstanding Securities represented thereby shall be made by the Trustee in accordance with instructions given by the Holder thereof as required by Section 2.11 of the Original Indenture and shall be made on the records of the Trustee and the Depository.

Members of, or participants in, the Depository ("**Agent Members**") shall have no rights under this Indenture with respect to any Global Security held on their behalf by the Depository or under the Global Security, and the Depository (including, for this purpose, its nominee) may be treated by the Company, the Trustee and any agent of the Company or the Trustee as the absolute owner and Holder of such Global Security for all purposes whatsoever. Notwithstanding the foregoing, nothing herein shall (1) prevent the Company, the Trustee or any agent of the Company or the Trustee from giving effect to any written certification, proxy or other authorization furnished by the Depository or (2) impair, as between the Depository and its Agent Members, the operation of customary practices governing the exercise of the rights of a Holder of any Security.

(e) The Company shall execute and the Trustee shall, in accordance with this Article 1, authenticate and deliver initially one or more Global Securities that (1) shall be registered in the name of the Depository, (2) shall be delivered by the Trustee to the Depository or pursuant to the Depository's instructions and (3) shall bear a legend substantially to the following effect:

"UNLESS THIS CERTIFICATE IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY TO THE COMPANY OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE OR PAYMENT, AND ANY CERTIFICATE ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY (AND ANY PAYMENT HEREON IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL SINCE THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN. THIS SECURITY IS A GLOBAL SECURITY WITHIN THE MEANING OF THE INDENTURE HEREINAFTER REFERRED TO AND IS REGISTERED IN THE NAME OF A DEPOSITORY OR A NOMINEE THEREOF. THIS SECURITY IS EXCHANGEABLE FOR SECURITIES REGISTERED IN THE NAME OF A PERSON OTHER THAN THE DEPOSITORY OR ITS NOMINEE ONLY IN THE LIMITED CIRCUMSTANCES DESCRIBED IN THE INDENTURE AND UNLESS AND UNTIL IT IS EXCHANGED IN WHOLE OR IN PART FOR SECURITIES IN DEFINITIVE FORM, THIS SECURITY MAY NOT BE TRANSFERRED EXCEPT AS A WHOLE BY THE DEPOSITORY TO A NOMINEE OF THE DEPOSITORY OR BY A NOMINEE OF THE DEPOSITORY TO THE DEPOSITORY OR ANOTHER NOMINEE OF THE DEPOSITORY OR BY THE DEPOSITORY OR ANY SUCH NOMINEE TO A SUCCESSOR DEPOSITORY OR A NOMINEE OF SUCH SUCCESSOR DEPOSITORY."

Section 1.02. *Execution and Authentication; Payments of Interest and Defaulted Amounts.*

(a) Section 2.03 of Article II of the Original Indenture shall not apply to, and have no force and effect with respect to, the Securities and any reference to Section 2.03 of Article II of the Original Indenture shall be superseded by and references thereto shall be deemed to refer to this Section 1.02 of Article 1 of this First Supplemental Indenture.

(b) The Securities shall be issuable only in registered form without coupons and only in denominations of \$1,000 principal amount and any integral multiple thereof.

(c) The Trustee shall act as the initial authenticating agent for the Securities.

(d) The Trustee shall authenticate and make available for delivery Securities for original issue in the aggregate principal amount of \$494,500,000 upon receipt of a written order or orders of the Company signed by two Officers, at least one of whom shall be the principal executive officer, principal financial officer or principal accounting officer of the Company (a “**Company Order**”). The Company Order shall specify the amount of Securities to be authenticated, shall provide that all such Securities will be represented by a Global Security and the date on which each original issue of Securities is to be authenticated. The Company at any time or from time to time may, without the consent of the Holders, issue additional Securities (“**Additional Securities**”) under this Indenture having the same ranking, interest rate, maturity and other terms and with the same CUSIP as the Securities initially issued hereunder in an unlimited aggregate principal amount, and entitled to all of the benefits of this Indenture; *provided* that such Additional Securities must be part of the same issue as the Securities initially hereunder for U.S. federal income tax purposes. Such Additional Securities shall, together with the Securities initially issued hereunder, constitute a single series of Securities under this Indenture, including without limitation in determining the necessary Holders who may take the actions or consent to the taking of actions as specified in this Indenture.

(e) Accrued interest on the Securities shall be computed on the basis of a 360-day year composed of twelve 30-day months. The Person in whose name any Security (or its predecessor) is registered on register of the Primary Registrar at the close of business on any Regular Record Date with respect to any Interest Payment Date shall be entitled to receive the interest payable on such Interest Payment Date. Interest shall be payable at the office or agency of the Company maintained by the Company for such purposes, which shall initially be the Corporate Trust Office. The Company shall pay interest (i) on any Certificated Securities (A) to Holders having an aggregate principal amount of \$2,000,000 or less, by check mailed to the Holders of these Securities at their address as it appears in the register of the Primary Registrar and (B) to Holders having an aggregate principal amount of more than \$2,000,000, either by check mailed to the Holders of these Securities or upon application by a Holder to the Company and Trustee at least 10 Business Days prior to the relevant payment date pursuant to Section 6.02, by wire transfer in immediately available funds to that Holder’s account within the United States, which application shall remain in effect until the Holder notifies, in writing, the Primary Registrar to the contrary or (ii) on any Global Security by wire transfer of immediately available funds to the account of the Depository or its nominee.

(f) Any Defaulted Amounts shall forthwith cease to be payable to the Holder on the relevant payment date by virtue of its having been such Holder but shall accrue interest per annum at the rate borne by the Securities *plus* one percent, subject to the enforceability thereof under applicable law, from, and including, such relevant payment date to, but excluding, the date on which such Defaulted Amounts shall have been paid by the Company, at its election in each case, as provided in subsection (i) or (ii) below:

(i) The Company may elect to make payment of any Defaulted Amounts to the Persons in whose names the Securities (or their respective predecessor Securities) are registered at the close of business on a special record date for the payment of such Defaulted Amounts, which shall be fixed in the following manner. The Company shall notify the Trustee in writing of the amount of the Defaulted Amounts proposed to be paid on each Security and the date of the proposed payment (which shall be not less than 25 days after the receipt by the Trustee of such notice, unless the Trustee shall consent to an

earlier date), and at the same time the Company shall deposit with the Trustee an amount of money equal to the aggregate amount to be paid in respect of such Defaulted Amounts or shall make arrangements satisfactory to the Trustee for such deposit on or prior to the date of the proposed payment, such money when deposited to be held in trust for the benefit of the Persons entitled to such Defaulted Amounts as in this clause provided. Thereupon the Company shall fix a special record date for the payment of such Defaulted Amounts which shall be not more than 15 days and not less than 10 days prior to the date of the proposed payment, and not less than 10 days after the receipt by the Trustee of the notice of the proposed payment. The Company shall promptly notify the Trustee of such special record date and the Trustee, in the name and at the expense of the Company, shall cause notice of the proposed payment of such Defaulted Amounts and the special record date therefor to be mailed, first-class postage prepaid, to each Holder at its address as it appears in the register of the Primary Registrar, not less than 10 days prior to such special record date. Notice of the proposed payment of such Defaulted Amounts and the special record date therefor having been so mailed, such Defaulted Amounts shall be paid to the Persons in whose names the Securities (or their respective predecessor Securities) are registered at the close of business on such special record date and shall no longer be payable pursuant to the following subsection (ii) of this Section 1.02(f).

(ii) The Company may make payment of any Defaulted Amounts in any other lawful manner not inconsistent with the requirements of any securities exchange or automated quotation system on which the Securities may be listed or designated for issuance, and upon such notice as may be required by such exchange or automated quotation system, if, after notice given by the Company to the Trustee of the proposed payment pursuant to this clause, such manner of payment shall be deemed practicable by the Trustee.

ARTICLE 2 DEFINITIONS AND INCORPORATION BY REFERENCE

Section 2.01. *General.* All the terms contained in this First Supplemental Indenture shall, except as specifically provided herein or except as the context may otherwise require, have the meaning given to such terms in the Original Indenture. In the events of any inconsistency between the Original Indenture and this First Supplemental Indenture, this First Supplemental Indenture shall govern. References to “this Indenture” or “the Indenture” in this First Supplemental Indenture shall mean the Original Indenture, as supplemented by this First Supplemental Indenture, as amended or supplemented from time to time pursuant to the term hereof. The words “herein,” “hereof,” “hereunder,” and words of similar import shall refer to this First Supplemental Indenture.

Except as specifically set forth herein in Article 9 and Sections 3.10, 12.09 and 12.10, the changes, modifications and supplements to the Base Indenture effected by this First Supplemental Indenture shall be applicable only with respect to, and shall only govern the terms of, the Securities, including any Additional Securities, which may be issued from time to time pursuant to this First Supplemental Indenture, and shall not apply to any other Debt Securities that may be issued under the Base Indenture unless a supplemental indenture with respect to such other Debt Securities specifically incorporates such changes, modifications and supplements. The provisions of this First Supplemental Indenture shall supersede any corresponding provisions in the Base Indenture, including for the purposes of the Trust Indenture Act.

Section 2.02. *Definitions.* For all purposes of this Indenture, except as otherwise expressly provided herein or unless the context otherwise requires:

“**Additional Interest**” means all amounts, if any, payable pursuant to Section 8.05.

“**Additional Shares**” has the meaning defined in Section 5.04(a) hereof.

“**Additional Securities**” has the meaning defined in Section 1.02(d) hereof.

“**Affiliate**” means, with respect to any specified Person, any other Person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified Person. For the purposes of this definition, “**control**,” when used with respect to any Person, means the power to direct the management and policies of such Person, directly or indirectly, whether through the ownership of voting securities, by contract or otherwise; and the terms “**controlling**” and “**controlled**” have meanings correlative to the foregoing.

“**Agent**” means any Registrar, Paying Agent or Conversion Agent.

“**Agent Members**” has the meaning defined in Section 1.01(d) hereof.

“**Applicable Procedures**” means, with respect to any transfer or exchange of beneficial ownership interests in a Global Security, the rules and procedures of the Depository, in each case to the extent applicable to such transfer or exchange.

“**Bankruptcy Law**” means Title 11, U.S. Code, or any similar federal or state law for the relief of debtors..

“**Bid Solicitation Agent**” means the Person appointed by the Company to solicit bids for the Trading Price of the Securities in accordance with Section 5.01(c). The Trustee shall initially act as the Bid Solicitation Agent.

“**Board of Directors**” means either the board of directors of the Company or any committee of the Board of Directors authorized to act for it with respect to this Indenture.

“**Capital Stock**” of any Person means (a) in the case of a corporation, corporate stock of such Person, (b) in the case of an association or business entity, shares, interests, participations, rights or other equivalents (however designated) of corporate stock of such Person, (c) in the case of a partnership or limited liability company, partnership or membership interests (whether general or limited) of such Person and (d) in the case of any other legal form, any other interest or participation of such Person that confers the right to receive a share of the profits and losses of, or distribution of assets of, such Person.

“**Cash**” or “**cash**” means such coin or currency of the United States as at any time of payment is legal tender for the payment of public and private debts.

“**Cash Settlement**” has the meaning defined in Section 5.02(a) hereof.

“**Certificated Security**” means a Security that is in substantially the form attached hereto as Exhibit A and that does not include the text or the schedule called for by footnotes 1 through 5 thereof.

“**Clause A Distribution**” has the meaning defined in Section 5.05(c) hereof.

“**Clause B Distribution**” has the meaning defined in Section 5.05(c) hereof.

“**Clause C Distribution**” has the meaning defined in Section 5.05(c) hereof.

“**close of business**” means 5:00 p.m. (New York City time).

“**Combination Settlement**” has the meaning defined in Section 5.02(a) hereof.

“**Company Order**” has the meaning defined in Section 1.02(d) hereof.

“**Common Equity**” of any Person means Capital Stock of such Person that is generally entitled (a) to vote in the election of directors of such Person or (b) if such Person is not a corporation, to vote or otherwise participate in the selection of the governing body, partners, managers or others who will control the management or policies of such Person.

“**Common Stock**” means the common stock of the Company, \$0.01 par value per share, subject to Section 5.07.

“**Conversion Agent**” has the meaning defined in Section 3.02 hereof.

“**Conversion Date**” has the meaning defined in Section 5.02(c) hereof.

“**Conversion Notice**” has the meaning defined in Section 5.02(b) hereof.

“**Conversion Obligation**” has the meaning defined in Section 5.01(a) hereof.

“**Conversion Price**” means, as of any date, \$1,000, *divided by* the Conversion Rate as of such date.

“**Conversion Rate**” has the meaning defined in Section 5.01(a) hereof.

“**Daily Conversion Value**” means, for each of the 25 consecutive Trading Days during the Observation Period, 4% of the product of:

- (a) the Conversion Rate on such Trading Day; and
- (b) the Daily VWAP of the Common Stock on such Trading Day.

“**Daily Measurement Value**” means the Specified Dollar Amount (if any), *divided by* 25.

“**Daily Settlement Amount**,” for each of the 25 consecutive Trading Days during the Observation Period, shall consist of:

- (a) cash equal to the lesser of (i) the Daily Measurement Value and (ii) the Daily Conversion Value; and
- (b) if the Daily Conversion Value exceeds the Daily Measurement Value, a number of shares of Common Stock equal to (i) the difference between the Daily Conversion Value and the Daily Measurement Value, *divided by* (ii) the Daily VWAP for such Trading Day.

“**Daily VWAP**” means, for each of the 25 consecutive Trading Days during the applicable Observation Period, the per share volume-weighted average price as displayed under the heading “Bloomberg VWAP” on Bloomberg page “HGSI <equity> AQR” (or its equivalent successor if such page is not available) in respect of the period from the scheduled open of trading until the scheduled close of trading of the primary trading session on such Trading Day (or if such volume-weighted average price is unavailable, the market value of one share of Common Stock on such Trading Day determined, using a volume-weighted average method, by a nationally recognized independent investment banking firm retained for this purpose by the Company). The “**Daily VWAP**” shall be determined without regard to after-hours trading or any other trading outside of the regular trading session trading hours.

“**Default**” or “**default**” means, when used with respect to the Securities, any event that is or, after notice or passage of time or both, would be an Event of Default.

“**Defaulted Amounts**” means any amounts on any Securities (including, without limitation, the Fundamental Change Repurchase Price, principal and interest) that are payable but are not punctually paid or duly provided for.

“**Depositary**” has the meaning defined in Section 1.01(d) hereof.

“**Distributed Property**” has the meaning defined in Section 5.05(c) hereof.

“**DTC**” has the meaning defined in Section 1.01(d) hereof.

“**Effective Date**” has the meaning defined in Section 5.04(c) hereof.

“**Event of Default**” has the meaning defined in Section 8.02 hereof.

“**Ex-Dividend Date**” means the first date on which the shares of the Common Stock trade on the applicable exchange or in the applicable market, regular way, without the right to receive the issuance, dividend or distribution in question, from the Company or, if applicable, from the seller of Common Stock on such exchange or market (in the form of due bills or otherwise) as determined by such exchange or market.

“**First Supplemental Indenture**” means this First Supplemental Indenture as amended or supplemented from time to time pursuant to the terms of this First Supplemental Indenture.

“**Fundamental Change**” shall be deemed to have occurred at the time after the Securities are originally issued if any of the following occurs:

(a) the Common Stock (or other common stock or American Depositary Receipts representing common stock into which the Securities are then convertible) ceases to be listed on any of The New York Stock Exchange, The NASDAQ Global Select Market or The NASDAQ Global Market (or any of their respective successors);

(b) any Person, including any syndicate or group deemed to be a “person” under Section 13(d)(3) of the Exchange Act, acquires beneficial ownership, directly or indirectly, through a purchase, merger or other acquisition transaction or series of transactions, of shares of the Company’s Capital Stock entitling the Person to exercise 50% or more of the total voting power of all shares of the Company’s Capital Stock entitled to vote generally in elections of directors, other than an acquisition by the Company, any of its Subsidiaries and any of its employee benefit plans;

(c) the Company merges or consolidates with or into any other Person (other than one of its Subsidiaries), another Person merges or consolidates with or into the Company, or the Company conveys, sells, transfers or leases all or substantially all of its assets to another Person in one transaction or a series of related transactions, other than any transaction:

(i) that does not result in a reclassification, conversion, exchange or cancellation of the outstanding Common Stock; or

(ii) pursuant to which the holders of all classes of the Company’s Common Equity immediately prior to the transaction have the entitlement to exercise, directly or indirectly, 50% or more of the total voting power of all classes of the Capital Stock of the continuing or surviving entity or transferee or parent thereof entitled to vote generally in the election of directors or managers of the continuing or surviving entity or transferee or parent thereof immediately after the transaction in substantially the same proportions as such entitlement immediately prior to such transaction; or

(d) the Company’s stockholders approve any plan or proposal for the liquidation or dissolution of the Company;

provided, however, that a transaction or transactions described in clause (b) or (c) above shall not constitute a Fundamental Change and Holders shall not have the right to require the Company to repurchase any Securities (and the Company shall not be required to deliver the Fundamental Change Repurchase Right Notice incidental thereto) if at least 90% of the consideration paid for the Common Stock (excluding cash payments for fractional shares and cash payments made pursuant to dissenters’ or appraisal rights) in a merger or consolidation or a conveyance, sale, transfer or lease otherwise constituting a Fundamental Change under clause (b) and/or clause (c) above consists of shares of common stock (or American Depositary Receipts representing common stock) that are listed on any of

The New York Stock Exchange, The NASDAQ Global Select Market or The NASDAQ Global Market (or any of their respective successors) or will be so traded or quoted immediately following such transaction or transactions and, as a result of the transaction or transactions, the Securities become convertible into such consideration, excluding cash payments for fractional shares and cash payments made pursuant to dissenters' or appraisal rights (subject to the settlement provisions of Section 5.02); provided that, with respect to common stock or American Depositary Receipts representing common stock of an entity organized under the laws of a jurisdiction outside the U.S., such entity has a worldwide market capitalization of its equity securities of at least \$5,000,000,000 before giving effect to the Fundamental Change (the exclusion described in the foregoing "provided, however" clause, including the provisos thereto, the "**Public Securities Exclusion**"). For purposes of this definition, whether a Person is a "beneficial owner" will be determined in accordance with Rule 13d-3 under the Exchange Act, and "Person" includes any syndicate or group that would be deemed to be a "person" under Section 13(d)(3) of the Exchange Act.

"**Fundamental Change Repurchase Date**" has the meaning defined in Section 4.02(d) hereof.

"**Fundamental Change Repurchase Price**" has the meaning defined in Section 4.02(a) hereof.

"**Fundamental Change Repurchase Right Notice**" has the meaning defined in Section 4.02(b) hereof.

"**GAAP**" means generally accepted accounting principles in the United States of America as in effect as of the date of this Indenture, including those set forth in (1) the opinions and pronouncements of the Accounting Principles Board of the American Institute of Certified Public Accountants, (2) the statements and pronouncements of the Financial Accounting Standards Board, (3) such other statements by such other entity as approved by a significant segment of the accounting profession and (4) the rules and regulations of the SEC governing the inclusion of financial statements (including pro forma financial statements) in registration statements filed under the Securities Act and periodic reports required to be filed pursuant to Section 13 of the Exchange Act, including opinions and pronouncements in staff accounting bulletins and similar written statements from the accounting staff of the SEC.

"**Global Security**" means a permanent Global Security that is in substantially the form attached hereto as Exhibit A and that includes the text and the schedule called for by footnotes 1 through 4 thereof and that is deposited with the Depository or its custodian and registered in the name of the Depository or its nominee.

"**Holder**" means the Person in whose name a Security is registered on the Primary Registrar' s books.

"**Interest Payment Date**" means each May 15 and November 15 of each year, beginning on May 15, 2012.

"**Last Reported Sale Price**" of the Common Stock on any date means:

(a) the closing sale price per share (or if no closing sale price is reported, the average of the bid and ask prices or, if more than one in either case, the average of the average bid and the average ask prices) on that date as reported in composite transactions for the principal U.S. national or regional securities exchange on which the Common Stock is traded;

(b) if the Common Stock is not listed for trading on a U.S. national or regional securities exchange on the relevant date, the last quoted bid price for the Common Stock in the over-the-counter market on the relevant date as reported by OTC Markets Group Inc. or a similar organization; or

(c) if the Common Stock is not so quoted, the average of the mid-point of the last bid and ask prices for the Common Stock on the relevant date from each of at least three nationally recognized independent investment banking firms selected by the Company for this purpose.

"**Make-Whole Fundamental Change**" means any transaction or event that constitutes a Fundamental Change (as defined above in clause (b) or (c) of the definition thereof and determined after giving effect to any exceptions to or exclusions from such definition, but without regard to the carve-out set forth in subclause (ii) of clause (c) of the definition thereof).

“Market Disruption Event” means:

(a) a failure by the primary United States national or regional securities exchange or market on which the Common Stock is listed or admitted for trading to open for trading during its regular trading session; or

(b) the occurrence or existence prior to 1:00 p.m., New York City time, on any Scheduled Trading Day for the Common Stock for more than one half-hour period in the aggregate during regular trading hours of any suspension or limitation imposed on trading (by reason of movements in price exceeding limits permitted by the relevant stock exchange or otherwise) in the Common Stock or in any options, contracts or future contracts relating to the Common Stock.

“Maturity Date” means November 15, 2018.

“Measurement Period” has the meaning defined in Section 5.01(c) hereof.

“Merger Event” has the meaning defined in Section 5.07(a) hereof.

“Non-Separate Rights” has the meaning defined in Section 5.09 hereof.

“Observation Period” with respect to any Security surrendered for conversion means:

(a) if the relevant Conversion Date occurs prior to the 30th Scheduled Trading Day immediately preceding the Maturity Date, the 25 consecutive Trading Day period beginning on, and including, the third Trading Day after such Conversion Date; and

(b) if the relevant Conversion Date occurs on or after the 30th Scheduled Trading Day immediately preceding the Maturity Date, the 25 consecutive Trading Days beginning on, and including, the 27th Scheduled Trading Day immediately preceding the Maturity Date.

“Officer” means the Chairman of the Board, the Chief Executive Officer, the President, any Vice President, the Chief Operating Officer, the Chief Financial Officer, the Treasurer, any Assistant Treasurer, the Controller, the Secretary or any Assistant Secretary of the Company.

“open of business” means 9:00 a.m. (New York City time).

“Outstanding” means, when used with respect to the Securities, Securities that are “outstanding” as provided in Section 3.06 hereof.

“Paying Agent” has the meaning defined in Section 3.02 hereof.

“Physical Settlement” has the meaning defined in Section 5.02(a) hereof.

“Primary Registrar” has the meaning defined in Section 3.02 hereof.

“Record Date” means, with respect to any dividend, distribution or other transaction or event in which the holders of Common Stock (or other security) have the right to receive any cash, securities or other property or in which the Common Stock (or other applicable security) is exchanged for or converted into any combination of cash, securities or other property, the date fixed for determination of stockholders entitled to receive such cash, securities or other property (whether such date is fixed by the Board of Directors, by statute, by contract or otherwise).

“Reference Property” has the meaning defined in Section 5.07(a) hereof.

“**Registrar**” has the meaning defined in Section 3.02 hereof.

“**Regular Record Date**,” with respect to any Interest Payment Date, shall mean the May 1 or November 1 (whether or not such day is a Business Day) immediately preceding the applicable May 15 or November 15 Interest Payment Date, respectively.

“**Repurchase Exercise Notice**” has the meaning defined in Section 4.02(c) hereof.

“**Scheduled Trading Day**” means a day that is scheduled to be a Trading Day on the principal U.S. national or regional securities exchange or market on which the Common Stock is listed or admitted for trading. If the Common Stock is not so listed or admitted for trading, “**Scheduled Trading Day**” means a Business Day.

“**SEC**” means the U.S. Securities and Exchange Commission.

“**Securities**” has the meaning defined in the Recitals hereof.

“**Securities Act**” means the U.S. Securities Act of 1933, as amended, or any successor statute or statutes thereto, and the rules and regulations promulgated thereunder, as in effect from time to time.

“**Securities Custodian**” means the Trustee, as custodian for DTC, with respect to the Securities in global form, or any successor thereto.

“**Settlement Amount**” has the meaning defined in Section 5.02(a)(ii) hereof.

“**Settlement Method**” means, with respect to any conversion of the Securities, Physical Settlement, Cash Settlement or Combination Settlement, as elected (or deemed to have been elected) by the Company.

“**Settlement Notice**” has the meaning defined in Section 5.02(a)(i) hereof.

“**Significant Subsidiary**” means, in respect of any Person, a Subsidiary of such Person that would constitute a “significant subsidiary”, as such term is defined in Rule 1-02 of Regulation S-X under the Exchange Act.

“**Specified Dollar Amount**” means the maximum cash amount per \$1,000 principal amount of Securities to be received upon conversion as specified in the Settlement Notice related to any converted Securities.

“**Spin-Off**” has the meaning defined in Section 5.05(c) hereof.

“**Stock Price**” has the meaning defined in Section 5.04(c) hereof.

“**Subsidiary**” means, in respect of any Person, any corporation, association, partnership or other business entity of which more than 50% of the total voting power of shares of Capital Stock or other interests (including partnership interests) entitled (without regard to the occurrence of any contingency) to vote in the election of directors, managers, general partners or trustees thereof is at the time owned or controlled, directly or indirectly, by (a) such Person; (b) such Person and one or more Subsidiaries of such Person; or (c) one or more Subsidiaries of such Person.

“**Trading Day**” means a day on which:

(a) trading in the Common Stock generally occurs on The NASDAQ Global Select Market or, if the Common Stock is not then listed on The NASDAQ Global Select Market, on the principal other U.S. national or regional securities exchange on which the Common Stock is then listed or, if the Common Stock is not then listed on a U.S. national or regional securities exchange, on the principal other market on which the Common Stock is then traded; and

(b) a Last Reported Sale Price for the Common Stock is available on such securities exchange or market;

provided that if the Common Stock is not so listed or traded, “**Trading Day**” means a Business Day; and *provided, further*, that for purposes of determining amounts due upon conversion only, “**Trading Day**” means a day on which:

(i) there is no Market Disruption Event; and

(ii) trading in the Common Stock generally occurs on The NASDAQ Global Select Market or, if the Common Stock is not then listed on The NASDAQ Global Select Market, on the principal other U.S. national or regional securities exchange on which the Common Stock is then listed or, if the Common Stock is not then listed on a U.S. national or regional securities exchange, on the principal other market on which the Common Stock is then listed or admitted for trading, except that if the Common Stock is not so listed or admitted for trading, “**Trading Day**” means a Business Day.

“**Trading Price**” of the Securities on any date of determination means the average of the secondary market bid quotations provided to the Bid Solicitation Agent for \$5,000,000 principal amount of Securities at approximately 3:30 p.m., New York City time, on such determination date by three independent nationally recognized securities dealers the Company selects; *provided* that if three such bids cannot reasonably be provided to the Bid Solicitation Agent but two such bids are provided, then the average of the two bids shall be used, and if only one such bid can reasonably be provided to the Bid Solicitation Agent, that one bid shall be used. If the Bid Solicitation Agent cannot reasonably be provided with at least one bid for \$5,000,000 principal amount of Securities from a nationally recognized securities dealer, then the Trading Price per \$1,000 principal amount of Securities shall be deemed to be less than 98% of the product of the Last Reported Sale Price of the Common Stock and the Conversion Rate on such Trading Day. If (i) the Company is not acting as the Bid Solicitation Agent, and the Company does not, when it is required to do so, instruct the Bid Solicitation Agent to obtain bids, or if the Company gives such instruction to the Bid Solicitation Agent and the Bid Solicitation Agent fails to make such determination; or (ii) if the Company is acting as Bid Solicitation Agent and it fails to make such determination, then, in either case, the Trading Price per \$1,000 principal amount of Securities will be deemed to be less than 98% of the product of the Last Reported Sale Price of Common Stock and the Conversion Rate for each Trading Day on which such failure occurs.

“**Trigger Event**” has the meaning defined in Section 5.05(c) hereof.

“**unit of Reference Property**” has the meaning defined in Section 5.07(a) hereof.

“**Valuation Period**” has the meaning defined in Section 5.05(c) hereof.

Section 2.03. *Trust Indenture Act Provisions.* Whenever this Indenture refers to a provision of the Trust Indenture Act, that provision is incorporated by reference in and made a part of this Indenture. The Indenture shall also include those provisions of the Trust Indenture Act required to be included herein by the provisions of the Trust Indenture Reform Act of 1990. The following Trust Indenture Act terms used in this Indenture have the following meanings:

“indenture securities” means the Securities;

“indenture security holder” means a Holder;

“indenture to be qualified” means this Indenture; and

“indenture trustee” or “institutional trustee” means the Trustee; and “obligor” on the indenture securities means the Company or any other obligor on the Securities.

All other terms used in this Indenture that are defined in the Trust Indenture Act, defined by Trust Indenture Act reference to another statute or defined by any SEC rule and not otherwise defined herein have the meanings assigned to them therein.

Section 2.04. *Rules of Construction.* Unless the context otherwise requires:

- (a) a term has the meaning assigned to it;
- (b) an accounting term not otherwise defined has the meaning assigned to it in accordance with GAAP;
- (c) words in the singular include the plural, and words in the plural include the singular;
- (d) provisions apply to successive events and transactions;
- (e) the term “merger” includes a statutory share exchange and the term “merged” has a correlative meaning;
- (f) the masculine gender includes the feminine and the neuter;
- (g) references to agreements and other instruments include subsequent amendments thereto; and
- (h) “herein,” “hereof” and other words of similar import refer to this First Supplemental Indenture as a whole and not to any particular Article, Section or other subdivision.

Section 2.05. *References to Additional Interest.* Unless the context otherwise requires, any reference to interest on, or in respect of, any Security in this Indenture shall be deemed to include Additional Interest if, in such context, Additional Interest is, was or would be payable pursuant to Section 8.05. Unless the context otherwise requires, any express mention of Additional Interest in any provision hereof shall not be construed as excluding Additional Interest in those provisions hereof where such express mention is not made.

ARTICLE 3 THE SECURITIES

Section 3.01. *General.* Sections 2.05(c), 2.08 and 2.11 of Article II and Section 4.03 of Article IV of the Original Indenture shall not apply to, and have no force and effect with respect to, the Securities and Sections 2.05(c), 2.08 and 2.11 of Article II and Section 4.03 of Article IV of the Original Indenture shall be superseded by and references thereto shall be deemed to refer to Section 3.05(a), 3.08, 3.09 and Section 3.02 of this Article 3, respectively, of this First Supplemental Indenture.

Section 3.02. *Registrar, Paying Agent and Conversion Agent.* The Company shall maintain one or more Security Registrars (each, a “**Registrar**”), one or more offices or agencies where Securities may be presented for payment (each, a “**Paying Agent**”), one or more offices or agencies where Securities may be presented for conversion (each, a “**Conversion Agent**”) and one or more offices or agencies where notices and demands to or upon the Company in respect of the Securities and this Indenture may be served. The Company will at all times maintain a Paying Agent, Conversion Agent, Registrar and an office or agency where notices and demands to or upon the Company in respect of the Securities and this Indenture may be served in Pittsburgh, Pennsylvania. One of the Registrars (the “**Primary Registrar**”) shall keep a register of the Securities and of their registration of transfer and exchange. The Company shall give prompt written notice to the Trustee of the location, and any change in the location, of such office or agency.

The Company shall enter into an appropriate agency agreement with any Agent not a party to this Indenture. The agreement shall implement the provisions of this Indenture that relate to such Agent. The Company shall give prompt written notice to the Trustee of the name and address of any Agent not a party to this Indenture. If the Company fails to maintain a Registrar, Paying Agent, Conversion Agent or agent for service of notices and demands in any place required by this Indenture, or fails to give the foregoing notice, the Trustee shall act as such. The Company or any Affiliate of the Company may act as Paying Agent (except for the purposes of Section 6.02 and Article 10).

The Company hereby initially designates the Trustee as Paying Agent, Primary Registrar, Securities Custodian and Conversion Agent and each of the Corporate Trust Office of the Trustee and the office or agency of the Trustee in Pittsburgh, Pennsylvania, as an office or agency of the Company for each of the aforesaid purposes.

Section 3.03. *Paying Agent to Hold Money in Trust.* Prior to 11:00 a.m., New York City time, on each due date of the principal of or interest on any Securities, the Company shall deposit with a Paying Agent a sum sufficient to pay such principal or interest so becoming due. A Paying Agent shall hold in trust for the benefit of the Holders or the Trustee all money held by the Paying Agent for the payment of principal of or interest on the Securities, and shall notify the Trustee of any default by the Company (or any other obligor on the Securities) in making any such payment. If the Company or an Affiliate of the Company acts as Paying Agent, it shall, before 11:00 a.m., New York City time, on each due date of the principal of or interest on any Securities, segregate the money and hold it as a separate trust fund for the benefit of the Holders. The Company at any time may require a Paying Agent to pay all money held by it to the Trustee, and the Trustee may at any time during the continuance of any default, upon written request to a Paying Agent, require such Paying Agent to pay forthwith to the Trustee all sums so held in trust by such Paying Agent. Upon doing so, the Paying Agent (other than the Company) shall have no further liability for the money.

Section 3.04. *Holders.* The Trustee shall preserve in as current a form as is reasonably practicable the most recent list available to it of the names and addresses of the Holders, and the Trustee shall otherwise comply with Trust Indenture Act Section 312(a). If the Trustee is not the Primary Registrar, the Company shall furnish to the Trustee at least seven Business Days before each semiannual interest payment date, and at such other times as the Trustee may request in writing, a list in such form and as of such date as the Trustee may reasonably require of the names and addresses of the Holders, and the Company shall otherwise comply with Trust Indenture Act Section 312(a).

Section 3.05. *Transfer and Exchange.*

(a) No service charge shall be made for any exchange or registration of transfer of Securities but the Company may require payment of a sum sufficient to cover any tax or other governmental charge in relation thereto, other than exchanges pursuant to Section 4.06, Section 5.02(d), or Section 11.05 of this First Supplemental Indenture or Sections 2.06 or 2.07 of the Original Indenture not involving any transfer. The provisions of this Section 3.05(a) and Section 2.05 of the Original Indenture are, with respect to any Global Security, subject to Section 3.09 hereof

Neither the Company, any Registrar nor the Trustee shall be required to exchange or register a transfer of any Securities or portions thereof in respect of which a Repurchase Exercise Notice pursuant to Section 4.02(c) has been delivered and not withdrawn by the Holder thereof (except, in the case of the purchase of a Security in part, the portion thereof not to be purchased).

Section 3.06. *Outstanding Securities.* Securities outstanding at any time are all Securities authenticated by the Trustee, except for those canceled by it, those converted pursuant to Article 5, those delivered to it for cancellation or surrendered for transfer or exchange and those described in this Section 3.06 as not outstanding.

If a Security is replaced pursuant to Section 2.07 of the Original Indenture, it ceases to be outstanding unless the Trustee receives proof satisfactory to it that the replaced Security is held by a protected purchaser.

If a Paying Agent (other than the Company or an Affiliate of the Company) holds on the Maturity Date money sufficient to pay the principal of and accrued interest on Securities (or portions thereof) payable on that date, then on and after such Maturity Date such Securities (or portions thereof, as the case may be) shall cease to be outstanding and interest on them shall cease to accrue.

Subject to the restrictions contained in Section 8.04 of the Original Indenture, a Security does not cease to be outstanding because the Company or an Affiliate of the Company holds the Security.

Section 3.07. *Treasury Securities*. In determining whether the Holders of the required principal amount of Securities have concurred in any notice, direction, waiver or consent, Securities owned by the Company or any other obligor on the Securities or by any Affiliate of the Company or of such other obligor shall be disregarded, except that, for purposes of determining whether the Trustee shall be protected in relying on any such notice, direction, waiver or consent, only Securities that a Responsible Officer of the Trustee actually knows are so owned shall be so disregarded. Securities so owned that have been pledged in good faith shall not be disregarded if the pledgee establishes to the satisfaction of the Trustee the pledgee's right so to act with respect to the Securities and that the pledgee is not the Company or any other obligor on the Securities or any Affiliate of the Company or of such other obligor.

Section 3.08. *Cancellation; Repurchase*. The Company shall cause all Securities surrendered for the purpose of payment, repurchase, registration of transfer or exchange or conversion, if surrendered to any Person other than the Trustee (including any of the Company's Agents, Subsidiaries or Affiliates), to be delivered to the Trustee for cancellation. The Registrar, the Paying Agent and the Conversion Agent shall forward to the Trustee or its agent any Securities surrendered to them for registration of transfer, exchange, redemption, payment or conversion. The Trustee and no one else shall promptly cancel, in accordance with its standard procedures, all Securities surrendered for the purpose of payment, repurchase, registration of transfer, exchange, conversion or cancellation and shall dispose of canceled Securities (subject to the record retention requirements of the Exchange Act), in accordance with its standard procedures, and no Securities shall be authenticated in exchange thereof except as expressly permitted by any of the provisions of this Indenture. The Company may not hold or resell such Securities or issue new Securities to replace Securities that it has purchased or otherwise acquired or that have been delivered to the Trustee for cancellation.

The Company may, to the extent permitted by law, and directly or indirectly (regardless of whether such Securities are surrendered to the Company), repurchase Securities in the open market, by tender offer or exchange offer, by private agreement through counterparties or otherwise, whether by the Company or its Subsidiaries, including by cash-settled swaps or other derivatives and, in each case, at any price. The Company shall cause any Securities so purchased (other than Securities repurchased pursuant to cash-settled swaps or other derivatives) to be surrendered to the Trustee for cancellation in accordance with this Section 3.08, and they shall no longer be considered outstanding under this Indenture upon their repurchase. Any Securities held by the Company or one of its Subsidiaries shall be disregarded for voting purposes in connection with any notice, waiver, consent or direction requiring the vote or concurrence of Holders.

Section 3.09. *Additional Transfer and Exchange Requirements*. A Global Security may not be transferred, in whole or in part, to any Person other than the Depository or a nominee or any successor thereof, and no such transfer to any such other Person may be registered; *provided* that the foregoing shall not prohibit any transfer of a Security that is issued in exchange for a Global Security but is not itself a Global Security. No transfer of a Security to any Person shall be effective under this Indenture or the Securities unless and until such Security has been registered in the name of such Person. Notwithstanding any other provisions of this Indenture or the Securities, transfers of a Global Security, in whole or in part, shall be made only in accordance with this Section 3.09.

(a) The provisions of subsections (i), (ii), (iii) and (iv) below shall apply only to Global Securities:

(i) Notwithstanding any other provisions of this Indenture or the Securities, a Global Security shall not be exchanged in whole or in part for a Security registered in the name of any Person other than the Depository or one or more nominees thereof; *provided* that a Global Security may be exchanged for Certificated Securities registered in the names of any Person designated by the Depository in the event that (A) the Depository has notified the Company that it is unwilling or unable to continue as Depository for such Global Security or the Depository has ceased to be a "clearing agency" registered under the Exchange Act, and a successor Depository is not appointed by the Company within 90 days or (B) an Event of Default has occurred and is continuing and a beneficial owner requests that its Securities be exchanged for Certificated Securities. Any Global Security exchanged pursuant to clause (A) above shall be so exchanged in whole and not in part, and any Global Security exchanged pursuant to clause (B) above may be exchanged in whole or from time to time in part as directed by the Depository. Any Security issued in exchange for a Global Security or any portion thereof shall be a Global Security; *provided* that any such Security so issued that is registered in the name of a Person other than the Depository or a nominee thereof shall not be a Global Security.

(ii) Securities issued in exchange for a Global Security or any portion thereof shall be issued in fully-registered book-entry form, without interest coupons, shall have an aggregate principal amount equal to that of such Global Security or portion thereof to be so exchanged, shall be registered in such names and be in such authorized denominations as the Depositary shall designate and shall bear any applicable legend provided for herein. Any Global Security to be exchanged in whole shall be surrendered by the Depositary to the Trustee, as Registrar. With regard to any Global Security to be exchanged in part, either such Global Security shall be so surrendered for exchange or, if the Trustee is acting as Securities Custodian for the Depositary or its nominee with respect to such Global Security, the principal amount thereof shall be reduced, by an amount equal to the portion thereof to be so exchanged, by means of an appropriate adjustment made on the records of the Trustee. Upon any such surrender or adjustment, the Trustee shall authenticate and deliver the Security issuable on such exchange to or upon the order of the Depositary or an authorized representative thereof; *provided, however,* that any Global Security surrendered for exchange shall be duly endorsed or accompanied by a written instrument of transfer in accordance with Section 2.05(b) of the Original Indenture.

(iii) Subject to the provisions of subsection (v) below, the registered Holder may grant proxies and otherwise authorize any Person, including Agent Members and Persons that may hold interests through Agent Members, to take any action which a Holder is entitled to take under this Indenture or the Securities.

(iv) In the event of the occurrence of any of the events specified in subsection (i) above, the Company will promptly make available to the Trustee a reasonable supply of Certificated Securities in definitive, fully registered form, without interest coupons.

(v) Neither Agent Members nor any other Persons on whose behalf Agent Members may act shall have any rights under this Indenture with respect to any Global Security registered in the name of the Depositary or any nominee thereof, or under any such Global Security, and the Depositary or such nominee, as the case may be, may be treated by the Company, the Trustee and any agent of the Company or the Trustee as the absolute owner and holder of such Global Security for all purposes whatsoever. Notwithstanding the foregoing, nothing herein shall prevent the Company, the Trustee or any agent of the Company or the Trustee from giving effect to any written certification, proxy or other authorization furnished by the Depositary or such nominee, as the case may be, or impair, as between the Depositary, its Agent Members and any other Person on whose behalf an Agent Member may act, the operation of customary practices of such Persons governing the exercise of the rights of a holder of any Security.

(b) In the event that Certificated Securities are issued in exchange for beneficial interests in Global Securities and, thereafter, the events or conditions specified in Section 3.09(a)(i) that required such exchange shall cease to exist, the Company shall deliver notice to the Trustee and to the Holders stating that Holders may exchange Certificated Securities for interests in Global Securities by complying with the procedures set forth in this Indenture and briefly describing such procedures and the events or circumstances requiring that such notice be given. Thereafter, if Certificated Securities are presented by a Holder to a Registrar with a request:

(i) to register the transfer of such Certificated Securities to a Person who will take delivery thereof in the form of a beneficial interest in a Global Security; or

(ii) to exchange such Certificated Securities for an equal principal amount of beneficial interests in a Global Security, which beneficial interests will be owned by the Holder transferring such Certificated Securities,

the Registrar shall register the transfer or make the exchange as requested by canceling such Certificated Securities and causing, or directing the Securities Custodian to cause, the aggregate principal amount of the applicable Global Security to be increased accordingly and, if no such Global Security is then outstanding, the Company shall issue and the Trustee, upon receipt of a Company Order, shall authenticate and deliver a new Global Security; *provided, however,* that the Certificated Securities presented or surrendered for registration of transfer or exchange shall be duly endorsed or accompanied by a written instrument of transfer in accordance with Section 2.05(b) of the Original Indenture.

Section 3.10. *CUSIP Numbers*. Article II of the Original Indenture is hereby supplemented by adding the provisions of the following paragraph to the end of Article II of the Original Indenture as Section 2.12 thereof, and notwithstanding anything to the contrary contained in this First Supplemental Indenture, such provisions of the following paragraph shall apply with respect to all Debt Securities issued under the Original Indenture, including, for the avoidance of doubt, the Securities:

“Section 2.12 *CUSIP Numbers*: The Company in issuing the Securities may use one or more “CUSIP” numbers (if then generally in use), and, if so, the Trustee shall use “CUSIP” numbers in notices as a convenience to Holders; *provided* that any such notice may state that no representation is made as to the correctness of such numbers either as printed on the Securities or as contained in any notice and that reliance may be placed only on the other identification numbers printed on the Securities, and any such notice or related action by the Company contemplated thereby shall not be affected by any defect in or omission of such numbers. The Company will promptly notify the Trustee of any change in the “CUSIP” numbers.”

ARTICLE 4
NO REDEMPTION; REPURCHASE UPON A FUNDAMENTAL CHANGE

Section 4.01. *No Optional Redemption*. The Company shall not have the option to redeem the Securities prior to the Maturity Date. No sinking fund is provided for the Securities. Accordingly, Article III of the Original Indenture shall not apply to, and have no force and effect with respect to, the Securities.

Section 4.02. *Repurchase At Option of The Holder Upon A Fundamental Change*.

(a) Subject to the satisfaction of the requirements of this Article 4, if a Fundamental Change occurs at any time prior to the Maturity Date, each Holder shall have the right to require the Company to repurchase for cash their Securities, or any portion of the principal amount thereof that is equal to \$1,000 or integral multiples of \$1,000 in excess thereof at a repurchase price (the “**Fundamental Change Repurchase Price**”) equal to 100% of the principal amount of the Securities to be repurchased plus accrued and unpaid interest, if any, to, but excluding, the Fundamental Change Repurchase Date (unless such Fundamental Change Repurchase Date falls after a Regular Record Date and on or prior to the corresponding Interest Payment Date, in which case the Company shall pay the full amount of accrued and unpaid interest payable on such Interest Payment Date to the Holder of record at the close of business on such Regular Record Date and the Fundamental Change Repurchase Price shall be equal to 100% of the principal amount of the Securities to be repurchased).

The Company shall provide to the Holders of the Securities, the Trustee and the Conversion Agent a notice (i) at least 35 Scheduled Trading Days prior to the anticipated effective date of a Fundamental Change or (ii) if the Company does not have knowledge of a Fundamental Change at least 35 Scheduled Trading Days prior to the anticipated effective date of such transaction, within two Business Days of the earlier of (x) the date upon which the Company receives, or otherwise becomes aware, of the anticipated effective date of such Fundamental Change and (y) the actual effective date of such Fundamental Change.

(b) In addition to the notice required pursuant to Section 4.02(a), on or before the 15th Business Day after the date on which a Fundamental Change becomes effective, the Company shall provide to all Holders of the Securities, the Trustee and the Conversion Agent a notice of the occurrence of the Fundamental Change and of the resulting repurchase right (the “**Fundamental Change Repurchase Right Notice**”). The Fundamental Change Repurchase Right Notice shall state:

- (i) the event or events giving rise to the Fundamental Change;
- (ii) if the Fundamental Change also constitutes a Make-Whole Fundamental Change;

- (iii) the Conversion Rate and any adjustments to the Conversion Rate;
- (iv) the effective date of the Fundamental Change;
- (v) the last date on which a Holder may exercise the repurchase right;
- (vi) the Fundamental Change Repurchase Price;
- (vii) the Fundamental Change Repurchase Date;
- (viii) the name and address of the Paying Agent and the Conversion Agent;
- (ix) that the Securities with respect to which a Repurchase Exercise Notice has been given by the Holder may be converted only if the Holder withdraws the Repurchase Exercise Notice as described in Section 4.02(c); and
- (x) the procedures that Holders must follow to require the Company to repurchase their Securities.

Simultaneously with providing the Fundamental Change Repurchase Right Notice, the Company shall issue a press release and publish the information through a public medium customary for such press releases.

(c) To exercise the repurchase right in connection with a Fundamental Change, a Holder must deliver, prior to the close of business, on the second Business Day immediately preceding the Fundamental Change Repurchase Date, the Securities to be purchased to the Paying Agent, duly endorsed for transfer, or effect book-entry transfer of the Securities to the Paying Agent, together with a written notice exercising its right to require the Company to repurchase its Securities or a portion thereof (a “**Repurchase Exercise Notice**”), substantially in the form included in Exhibit A hereto, duly completed, to the Paying Agent. The Repurchase Exercise Notice must state:

- (i) if the Securities are Certificated Securities, the certificate numbers of the Securities to be delivered for repurchase;
- (ii) the portion of the principal amount of the Securities to be repurchased, which must be equal to \$1,000 or integral multiples of \$1,000 in excess thereof; and
- (iii) that the Securities are to be repurchased by the Company as of the Fundamental Change Repurchase Date pursuant to the applicable provisions of the Securities and this Indenture.

If the Securities are Global Securities, the Repurchase Exercise Notice must comply with the Applicable Procedures.

A Holder may withdraw any Repurchase Exercise Notice (in whole or in part) by a written notice of withdrawal delivered to the Paying Agent prior to the close of business on the second Business Day prior to the Fundamental Change Repurchase Date. The notice of withdrawal must state:

- (i) the principal amount of the Securities for which the Repurchase Exercise Notice has been withdrawn;
- (ii) if Certificated Securities have been issued, the certificate numbers of the withdrawn Securities; and
- (iii) the principal amount, if any, that remains subject to the Repurchase Exercise Notice.

If the Securities are Global Securities, the withdrawal notice must comply with the Applicable Procedures.

(d) The Company must repurchase on a date (the “**Fundamental Change Repurchase Date**”) chosen by the Company that is no less than 20 and no more than 35 Business Days after the date of the Fundamental Change Repurchase Right Notice with respect to the occurrence of the relevant Fundamental Change, subject to extension to comply with applicable law. To receive payment of the Fundamental Change Repurchase Price, a Holder must either effect book-entry transfer or deliver the Securities, together with necessary endorsements, to the office of the Paying Agent after delivery of the Repurchase Exercise Notice. Holders shall receive payment of the Fundamental Change Repurchase Price on the later of (i) the Fundamental Change Repurchase Date and (ii) the time of book-entry transfer or the delivery of the Securities. If the Paying Agent holds money sufficient to pay the Fundamental Change Repurchase Price of the Securities on the Fundamental Change Repurchase Date, then:

(i) the Securities will cease to be outstanding and interest, if any, will cease to accrue (whether or not book-entry transfer of the Securities is made or whether or not the Securities are delivered to the Paying Agent); and

(ii) all other rights of the Holder will terminate (other than the right to receive the Fundamental Change Repurchase Price upon delivery or transfer of the Securities).

Section 4.03. *Compliance With Securities Laws Upon Purchase of Securities.* In connection with any offer to purchase the Securities under Section 4.02, the Company shall comply with all tender offer rules applicable to the Company under the Exchange Act. The Company shall:

(a) comply with the provisions of Rule 13e-4 and Rule 14e-1 (or any successor to either such Rule), if applicable, under the Exchange Act;

(b) file a Schedule TO (or any successor or similar schedule, form or report), if required, under the Exchange Act; and

(c) otherwise comply with all federal and state securities laws in connection with such offer by the Company to purchase the Securities upon a Fundamental Change, so as to permit the rights of the Holders and obligations of the Company under Section 4.02 to be exercised in the time and in the manner specified therein.

To the extent that the provisions of any securities laws or regulations conflict with the provisions of Section 4.02, the Company shall comply with the applicable securities laws and regulations and shall not be deemed to have breached its obligations under Section 4.02 by virtue of such conflict.

Section 4.04. *No Repurchase Upon Acceleration.* No Securities may be repurchased on any date at the option of Holders upon a Fundamental Change if the principal amount of the Securities has been accelerated, and such acceleration has not been rescinded, on or prior to such date (except in the case of an acceleration resulting from a Default by the Company in the payment of the Fundamental Change Repurchase Price with respect to such Securities). The Paying Agent will promptly return to the respective Holders thereof any Certificated Securities held by it following the acceleration of the Securities (except in the case of an acceleration resulting from a Default by the Company in the payment of the Fundamental Change Repurchase Price with respect to such Securities), and any instructions for book-entry transfer of the Securities in compliance with the procedures of the Depository shall be deemed to have been cancelled, and, upon such return or cancellation, as the case may be, the Fundamental Change Repurchase Notice with respect thereto shall be deemed to have been withdrawn.

Section 4.05. *Repayment to the Company.* To the extent that the aggregate amount of cash deposited by the Company pursuant to Section 4.02 exceeds the aggregate Fundamental Change Repurchase Price of the Securities or portions thereof that the Company is obligated to purchase, then promptly after the Fundamental Change Repurchase Date, the Trustee or a Paying Agent, as the case may be, shall return any such excess cash to the Company.

Section 4.06. *Partial Repurchase.* Upon surrender of a Security that is to be repurchased in part pursuant to Section 4.02, the Company shall execute and the Trustee shall authenticate and deliver to the Holder a new Security in an authorized denomination equal in principal amount to the unrepurchased portion of the Security surrendered.

ARTICLE 5
CONVERSION

Section 5.01. *Conversion Rights.*

(a) Subject to and upon compliance with the provisions of this Article 5, each Holder of a Security shall have the right, at such Holder's option, to convert all or any portion (if the portion to be converted is \$1,000 principal amount or an integral multiple thereof) of such Security (i) subject to satisfaction of one or more of the conditions described in subsections (b) through (e) of this Section 5.01, at any time prior to the close of business on the Business Day immediately preceding August 15, 2018 under the circumstances and during the periods set forth in subsections (b) through (e) of this Section 5.01, and (ii) irrespective of the conditions set forth in subsections (b) through (e) of this Section 5.01, on or after August 15, 2018 and prior to the close of business on the Business Day immediately preceding the Maturity Date, in each case at an initial conversion rate of 75.0469 shares of Common Stock (subject to adjustment as provided in Section 5.05, the "**Conversion Rate**") per \$1,000 principal amount of Securities (subject to the settlement provisions of Section 5.02, the "**Conversion Obligation**").

(b) Prior to the close of business on the Business Day immediately preceding August 15, 2018, a Holder may surrender all or a portion of its Securities for conversion during any calendar quarter commencing after the calendar quarter ending on December 31, 2011 (and only during such calendar quarter), if the Last Reported Sale Price of the Common Stock for at least 20 Trading Days (whether or not consecutive) during the period of 30 consecutive Trading Days ending on, and including, the last Trading Day of the immediately preceding calendar quarter is greater than or equal to 130% of the Conversion Price on each applicable Trading Day.

(c) Prior to the close of business on the Business Day immediately preceding August 15, 2018, a Holder of the Securities may surrender its Securities for conversion during the five Business Day period after any five consecutive Trading Day period (the "**Measurement Period**") in which the Trading Price per \$1,000 principal amount of the Securities, as determined following a request by a Holder of the Securities in accordance with the procedures described below, for each Trading Day of the Measurement Period was less than 98% of the product of the Last Reported Sale Price of Common Stock and the Conversion Rate on each such Trading Day.

The Bid Solicitation Agent (if other than the Company) shall have no obligation to determine the Trading Price of the Securities unless the Company has requested such determination; and the Company shall have no obligation to make such request (or, if the Company is acting as Bid Solicitation Agent, it shall have no obligation to determine the Trading Price) unless a Holder of the Securities requests in writing that the Company make such a determination and provides the Company with reasonable evidence that the Trading Price per \$1,000 principal amount of the Securities would be less than 98% of the product of the Last Reported Sale Price of Common Stock and the Conversion Rate. At such time, the Company shall instruct the Bid Solicitation Agent (if other than the Company) to determine, or if the Company is acting as Bid Solicitation Agent, the Company shall determine, the Trading Price per \$1,000 principal amount of Securities beginning on the next Trading Day and on each successive Trading Day until the Trading Price per \$1,000 principal amount of Securities is greater than or equal to 98% of the product of the Last Reported Sale Price of Common Stock and the Conversion Rate on such Trading Day.

If the Trading Price per \$1,000 principal amount of Securities for each Trading Day of the applicable Measurement Period was less than 98% of the product of the Last Reported Sale Price of Common Stock and the Conversion Rate, the Company shall notify the Holders, the Trustee and the Conversion Agent. If, at any time after the Trading Price per \$1,000 principal amount of Securities for each Trading Day of a Measurement Period was less than 98% of the product of the Last Reported Sale Price of Common Stock and the Conversion Rate, the Trading Price per \$1,000 principal amount of Securities is greater than or equal to 98% of the product of the Last Reported Sale Price of Common Stock and the Conversion Rate for such Trading Day, the Company shall notify the Holders, the Trustee and the Conversion Agent.

(d) If, prior to the close of business on the Business Day immediately preceding August 15, 2018, the Company elects to:

(i) issue to all or substantially all holders of Common Stock any rights, options or warrants entitling them, for a period of not more than 60 calendar days after the announcement date of such issuance, to subscribe for or purchase shares of Common Stock at a price per share that is less than the average of the Last Reported Sale Prices of the Common Stock for the five consecutive Trading Day period ending on, and including, the Trading Day immediately preceding the date of announcement of such issuance; or

(ii) distribute to all or substantially all holders of Common Stock, the Company's assets, debt securities or rights to purchase the Company's securities, which distribution has a per share value, as reasonably determined by the Board of Directors, exceeding 10% of the average of the Last Reported Sale Price of the Common Stock for the five consecutive Trading Day period ending on, and including, the Trading Day immediately preceding the date of announcement of such distribution,

then, in either case, the Company shall notify the Holders of the Securities at least 35 Scheduled Trading Days prior to the Ex-Dividend Date for such issuance or distribution. Once the Company has given such notice, Holders may surrender their Securities for conversion at any time until the earlier of the close of business on the Business Day immediately preceding the Ex-Dividend Date for such issuance or distribution and the Company's announcement that such issuance or distribution will not take place, even if the Securities are not otherwise convertible at such time.

(e) If a transaction or event that constitutes a Fundamental Change or Make-Whole Fundamental Change (provided that a transaction exempted from such definition by the Public Securities Exclusion shall constitute a Fundamental Change and Make-Whole Fundamental Change for purposes of this section 5.01(e)) occurs prior to the close of business on the Business Day immediately preceding August 15, 2018, regardless of whether a Holder of the Securities has the right to require the Company to repurchase the Securities pursuant to Section 4.02, or if the Company is a party to a consolidation, merger, binding share exchange, or transfer or lease of all or substantially all of the Company's assets, pursuant to which Common Stock would be converted into cash, securities or other assets, the Securities may be surrendered for conversion at any time from or after the date that is 35 Scheduled Trading Days prior to the anticipated effective date of the transaction (or, if later, the Business Day after the Company gives notice of such transaction) until 35 Trading Days after the actual effective date of such transaction or, if such transaction also constitutes a Fundamental Change, until the related Fundamental Change Repurchase Date. The Company shall notify the Holders, the Trustee and the Conversion Agent (i) as promptly as practicable following the date the Company publicly announces such transaction but in no event less than 35 Scheduled Trading Days prior to the anticipated effective date of such transaction; or (ii) if the Company does not have knowledge of such transaction at least 35 Scheduled Trading Days prior to the anticipated effective date of such transaction, then within two Business Days of the earlier of (x) the date upon which the Company receives notice, or otherwise becomes aware, the anticipated effective date of such transaction and (y) the actual effective date of such transaction.

Section 5.02. *Settlement Upon Conversion; Conversion Procedures.*

(a) Subject to this Section 5.02, Section 5.04 and Section 5.07, upon conversion of any Security, the Company shall pay or deliver, as the case may be, to the converting Holder, in respect of each \$1,000 principal amount of Securities being converted cash ("**Cash Settlement**"), shares of Common Stock, together with cash, if applicable, in lieu of any fractional share of Common Stock in accordance with subsection (i) of this Section 5.02 ("**Physical Settlement**") or a combination of cash and shares of Common Stock, together with cash, if applicable, in lieu of any fractional share of Common Stock in accordance with subsection (i) of this Section 5.02 ("**Combination Settlement**"), at its election, as set forth in this Section 5.02.

(i) All conversions occurring on or after August 15, 2018 shall be settled using the same Settlement Method. Prior to August 15, 2018, the Company shall use the same Settlement Method for all conversions occurring on the same Conversion Date, but the Company shall not have any obligation to use the same Settlement Method with respect to conversions that occur on different Trading Days. If, in respect of any Conversion Date (or with respect to the period beginning on, and including, August 15, 2018 and ending on, and including, the Business Day immediately preceding the Maturity Date, as the case may be), the Company elects to deliver a notice (the "**Settlement Notice**") of the relevant Settlement Method in

respect of such Conversion Date (or such period, as the case may be), the Company, through the Trustee (upon request of the Company), shall deliver such Settlement Notice to converting Holders no later than the close of business on the second Trading Day immediately following the relevant Conversion Date (or, in the case of any conversions occurring on or after August 15, 2018, no later than August 15, 2018). If the Company does not elect a Settlement Method prior to the deadline set forth in the immediately preceding sentence, the Company shall no longer have the right to elect Cash Settlement or Physical Settlement and the Company shall be deemed to have elected Combination Settlement in respect of its Conversion Obligation, and the Specified Dollar Amount per \$1,000 principal amount of Securities shall be deemed to be \$1,000. Such Settlement Notice shall be prepared by the Company and shall specify the relevant Settlement Method and, in the case of an election of Combination Settlement, the relevant Settlement Notice shall indicate the Specified Dollar Amount. If the Company elects Combination Settlement but does not timely notify converting Holders of the Specified Dollar Amount per \$1,000 principal amount of Securities, such Specified Dollar Amount will be deemed to be \$1,000.

(ii) The cash, shares of Common Stock or combination of cash and shares of Common Stock in respect of any conversion of Securities (the “**Settlement Amount**”) shall be computed as follows:

(A) if the Company elects to satisfy its Conversion Obligation in respect of such conversion by Physical Settlement, the Company shall deliver to the converting Holder in respect of each \$1,000 principal amount of Securities being converted a number of shares of Common Stock equal to the Conversion Rate;

(B) if the Company elects to satisfy its Conversion Obligation in respect of such conversion by Cash Settlement, the Company shall pay to the converting Holder in respect of each \$1,000 principal amount of Securities being converted cash in an amount equal to the sum of the Daily Conversion Values for each of the 25 consecutive Trading Days during the related Observation Period; and

(C) if the Company elects (or is deemed to have elected) to satisfy its Conversion Obligation in respect of such conversion by Combination Settlement, the Company shall pay or deliver, as the case may be, in respect of each \$1,000 principal amount of Securities being converted, a Settlement Amount equal to the sum of the Daily Settlement Amounts for each of the 25 consecutive Trading Days during the related Observation Period.

(iii) The Daily Settlement Amounts (if applicable) and the Daily Conversion Values (if applicable) shall be determined by the Company promptly following the last day of the Observation Period. Promptly after such determination of the Daily Settlement Amounts or the Daily Conversion Values, as the case may be, and the amount of cash payable in lieu of any fractional share, the Company shall notify the Trustee and the Conversion Agent of the Daily Settlement Amounts or the Daily Conversion Values, as the case may be, and the amount of cash payable in lieu of fractional shares of Common Stock.

(b) Subject to Section 5.02(e), before any Holder of a Security shall be entitled to convert a Security as set forth above, such Holder shall:

(i) in the case of a Certificated Security:

(A) complete and deliver an irrevocable notice to the Conversion Agent as set forth in the Form of Conversion Notice attached to the Form of Security set forth in Exhibit A hereto (a “**Conversion Notice**”) at the office of the Conversion Agent and state in writing therein the principal amount of Securities to be converted and the name or names (with addresses) in which such Holder wishes the certificate or certificates for any shares of Common Stock to be delivered upon settlement of the Conversion Obligation to be registered;

(B) deliver such Security to the Conversion Agent;

(C) if required by the Conversion Agent, furnish appropriate endorsements and additional transfer documents, to the Conversion Agent;

(D) if required, pay all transfer or similar taxes; and

(E) if required, pay funds equal to interest payable on the next Interest Payment Date to which such Holder is not entitled as set forth in subsection (g) of this Section 5.02; and

(ii) in the case of a Global Security, comply with the Depository's procedures for converting a beneficial interest in a Global Security and, if required, pay all taxes or duties and funds equal to interest payable on the next Interest Payment Date to which such Holder is not entitled as set forth in subsection (g) of this Section 5.02.

The Trustee (and, if different, the Conversion Agent) shall notify the Company of any conversion pursuant to this Article 5 on the Conversion Date for such conversion. No Conversion Notice with respect to any Securities may be surrendered by a Holder thereof if such Holder has also delivered a Fundamental Change Repurchase Notice to the Company in respect of such Securities and not validly withdrawn such Fundamental Change Repurchase Notice in accordance with Section 4.02(c).

If more than one Security shall be surrendered for conversion at one time by the same Holder, the Conversion Obligation with respect to such Securities shall be computed on the basis of the aggregate principal amount of the Securities (or specified portions thereof to the extent permitted thereby) so surrendered.

(c) A Security shall be deemed to have been converted immediately prior to the close of business on the date (the "**Conversion Date**") that the Holder has complied with the requirements set forth in subsection (b) above. The Company shall pay or deliver, as the case may be, the consideration due in respect of the Conversion Obligation on the third Business Day immediately following the relevant Conversion Date, if the Company elects Physical Settlement, or on the third Business Day immediately following the last Trading Day of the Observation Period, in the case of any other Settlement Method. If any shares of Common Stock are due to converting Holders, the Company shall issue or cause to be issued, and deliver to the Conversion Agent, its stock transfer agent or to such Holder, or such Holder's nominee or nominees, certificates or a book-entry transfer through the Depository for the full number of shares of Common Stock to which such Holder shall be entitled in satisfaction of the Company's Conversion Obligation.

(d) In case any Security shall be surrendered for partial conversion, the Company shall execute and the Trustee shall authenticate and deliver to or upon the written order of the Holder of the Security so surrendered a new Security or Securities in authorized denominations in an aggregate principal amount equal to the unconverted portion of the surrendered Security, without payment of any service charge by the converting Holder but, if required by the Company or Trustee, with payment of a sum sufficient to cover any transfer tax or similar governmental charge required by law or that may be imposed in connection therewith as a result of the name of the Holder of the new Securities issued upon such conversion being different from the name of the Holder of the old Securities surrendered for such conversion.

(e) If a Holder submits a Security for conversion, the Company shall pay any documentary, stamp or similar issue or transfer tax due on the issue of any shares of Common Stock upon the conversion, unless the tax is due because the Holder requests any shares to be issued in a name other than the Holder's name, in which case the Holder shall pay that tax. The Company or its stock transfer agent may refuse to deliver the certificates representing the shares of Common Stock being issued in a name other than the Holder's name until the Company or its representative receives a sum sufficient to pay any tax that is due by such Holder in accordance with the immediately preceding sentence.

(f) Upon the conversion of an interest in a Global Security, the Trustee, or the Securities Custodian at the direction of the Trustee, shall reflect the reduction in the principal amount represented thereby in the books and records of the Trustee and Depository. The Company shall notify the Trustee in writing of any conversion of Securities effected through any Conversion Agent other than the Trustee.

(g) Except as described below, the Company shall not make any separate cash payment for accrued and unpaid interest, if any, upon conversion of Securities. The Company's settlement of the Conversion Obligation shall be deemed to satisfy in full its obligation to pay the principal amount of the Security and accrued and unpaid interest, if any, attributable to the period from, and including, the most recent Interest Payment Date to, but excluding, the Conversion Date. As a result, accrued and unpaid interest, if any, to, but excluding, the Conversion Date shall be deemed to be paid in full rather than cancelled, extinguished or forfeited. Upon a conversion of Securities into a combination of cash and shares of Common Stock, accrued and unpaid interest shall be deemed to be paid first out of the cash paid upon such conversion. Notwithstanding the foregoing, if Securities are submitted for conversion after the close of business on a Regular Record Date and prior to the open of business on the immediately following Interest Payment Date, Holders of such Securities as of the close of business on such Regular Record Date shall receive the full amount of interest payable on such Securities on such Interest Payment Date notwithstanding the conversion, and Securities surrendered for conversion must be accompanied by funds equal to the amount of interest payable on the principal amount of the Securities being converted; *provided* that no such payment need be made:

(i) for conversions following the Regular Record Date immediately preceding the Maturity Date;

(ii) if the Company has specified a Fundamental Change Repurchase Date that is after a Regular Record Date and on or prior to the corresponding Interest Payment Date; or

(iii) to the extent of any overdue interest, if any overdue interest exist at the time of conversion with respect to such Security.

(h) The Person in whose name the certificate for any shares of Common Stock delivered upon conversion is registered shall be treated as a stockholder of record as of the close of business on the relevant Conversion Date (if the Company elects to satisfy the related Conversion Obligation by Physical Settlement) or the last Trading Day of the relevant Observation Period (if the Company elects, or is deemed to have elected, to satisfy the related Conversion Obligation by Combination Settlement), as the case may be. Upon a conversion of Securities, such Person shall no longer be a Holder of such Securities surrendered for conversion.

(i) The Company shall not issue any fractional share of Common Stock upon conversion of the Securities and shall instead pay cash in lieu of any fractional share of Common Stock issuable upon conversion based on the Daily VWAP on the relevant Conversion Date (in the case of Physical Settlement) or based on the Daily VWAP on the last Trading Day of the relevant Observation Period (in the case of Combination Settlement). For each Security surrendered for conversion, if the Company has elected (or is deemed to have elected) Combination Settlement, the full number of shares that shall be issued upon conversion thereof shall be computed on the basis of the aggregate Daily Settlement Amounts for the applicable Observation Period and any fractional shares remaining after such computation shall be paid in cash.

(j) Each conversion shall be deemed to have been effected as to any Security surrendered for conversion on the Conversion Date; *provided, however*, that the Person in whose name any shares of Common Stock shall be issuable upon such conversion shall become the holder of record of such shares as of the close of business on the Conversion Date (in the case of Physical Settlement) or the last Trading Day of the relevant Observation Period (if in the case of Combination Settlement).

Section 5.03. *Company to Provide Stock.* The Company shall, prior to issuance of any Securities hereunder, and from time to time as may be necessary, reserve, out of its authorized but unissued Common Stock, a sufficient number of shares of Common Stock to permit the conversion of all outstanding Securities into shares of Common Stock (assuming that at the time of computation of such number of shares, all such Securities would be converted by a single Holder and that Physical Settlement is applicable).

All shares of Common Stock delivered upon conversion of the Securities shall be newly issued shares, shall be duly authorized, validly issued, fully paid and nonassessable and shall be free from preemptive rights and free of any lien or adverse claim.

The Company shall endeavor promptly to comply with all federal and state securities laws regulating the offer and delivery of shares of Common Stock upon conversion of Securities, if any, and will list or cause to have quoted such shares of Common Stock on each national securities exchange, over-the-counter market or such other market on which the Common Stock is then listed or quoted; *provided, however*, that if rules of such automated quotation system or exchange permit the Company to defer the listing of such Common Stock until the first conversion of the Securities into Common Stock in accordance with the provisions of this Indenture, the Company covenants to list such Common Stock issuable upon conversion of the Securities in accordance with the requirements of such automated quotation system or exchange at such time.

Section 5.04. *Adjustment to Conversion Rate Upon a Make-Whole Fundamental Change.*

(a) If and only to the extent that a Holder converts its Securities in connection with a Make-Whole Fundamental Change, the Company shall, under the circumstances set forth in this Section 5.04, increase the Conversion Rate for the Securities so surrendered for conversion by a number of additional shares (the “**Additional Shares**”), as described below.

(b) Upon surrender of Securities for conversion in connection with a Make-Whole Fundamental Change, the Company shall, at its option, satisfy its Conversion Obligation by Physical Settlement, Cash Settlement or Combination Settlement in accordance with Section 5.02. However, if the consideration for the Common Stock in any Make-Whole Fundamental Change described in clause (c) of the definition of Fundamental Change is composed entirely of cash, for any conversion of the Securities following the Effective Date of such Make-Whole Fundamental Change, the Conversion Obligation shall be calculated based solely on the Stock Price for the transaction and shall be deemed to be an amount in cash per \$1,000 principal amount of converted Securities equal to the Conversion Rate (including any adjustment described in this Section 5.04), *multiplied by* such Stock Price. In such event, the Conversion Obligation shall be determined and paid to Holders in cash on the third Business Day following the Conversion Date. The Company shall notify Holders of the Effective Date of any Make-Whole Fundamental Change and issue a press release announcing such Effective Date no later than five Business Days after such Effective Date.

(c) The number of Additional Shares, if any, by which the Conversion Rate shall be increased shall be determined by reference to the table set forth in clause (f) below, based on the date on which the Make-Whole Fundamental Change occurs or becomes effective (the “**Effective Date**”) and the price (the “**Stock Price**”) paid (or deemed to be paid) per share of Common Stock in such Make-Whole Fundamental Change. If holders of Common Stock receive only cash in a Make-Whole Fundamental Change described in clause (c) of the definition of Fundamental Change, the Stock Price shall be the cash amount paid per share of Common Stock. Otherwise, the Stock Price shall be the average of the Last Reported Sale Prices of the Common Stock on each of the five consecutive Trading Days prior to, but excluding, the Effective Date of the Make-Whole Fundamental Change.

(d) A conversion of Securities by a Holder shall be deemed for these purposes to be “in connection with” a Make-Whole Fundamental Change if the Conversion Notice is received by the Conversion Agent on or after the Effective Date of the Make-Whole Fundamental Change and prior to the close of business on the Business Day immediately preceding the related Fundamental Change Repurchase Date (or, in the case of a Make-Whole Fundamental Change that would have been a Fundamental Change but for the carve-out in subsection (ii) of clause (c) of the definition of Fundamental Change, the 35th Trading Day following the actual Effective Date of the Make-Whole Fundamental Change).

(e) The Stock Prices set forth in the first row of the following table (*i.e.*, the column headings) shall be adjusted as of any date on which the Conversion Rate is adjusted pursuant to Section 5.05. The adjusted Stock Prices shall equal the Stock Prices applicable immediately prior to such adjustment, *multiplied by* a fraction, the numerator of which is the Conversion Rate immediately prior to the adjustment giving rise to the Stock Price adjustment and the denominator of which is the Conversion Rate as so adjusted. The number of Additional Shares will be adjusted in the same manner, at the same time and for the same events as the Conversion Rate as set forth in Section 5.05.

(f) The following table sets forth the number of Additional Shares by which the Conversion Rate shall be increased per \$1,000 initial principal amount of Securities for each Stock Price and Effective Date set forth below:

Effective Date	Stock Price										
	\$10.25	\$11.00	\$12.00	\$15.00	\$20.00	\$25.00	\$30.00	\$35.00	\$40.00	\$50.00	\$75.00
November 7, 2011	22.5141	19.7838	16.7163	10.8276	6.6736	4.9395	3.8899	3.1466	2.6008	1.8437	0.8675
November 15, 2012	22.5141	19.7916	16.5163	10.3650	6.0960	4.4602	3.5077	2.8422	2.3538	1.6749	0.7955
November 15, 2013	22.5141	19.8482	16.3623	9.8459	5.3685	3.9373	3.0845	2.5013	2.0734	1.4802	0.7092
November 15, 2014	22.5141	19.8355	16.1208	9.1766	4.6699	3.2967	2.5932	2.1125	1.7545	1.2580	0.6080
November 15, 2015	22.5141	19.7061	15.7142	8.3856	3.7522	2.5929	2.0504	1.6755	1.3956	1.0048	0.4901
November 15, 2016	22.5141	19.2830	14.9519	7.1926	2.6942	1.8208	1.4491	1.1876	0.9915	0.7174	0.3539
November 15, 2017	22.5141	18.2125	13.3819	5.2070	1.3765	0.9727	0.7778	0.6390	0.5348	0.3890	0.1947
November 15, 2018	22.5141	15.8622	8.2864	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

The exact Stock Prices and Effective Dates may not be set forth in the table above, in which case:

(i) if the Stock Price is between two Stock Prices in the table or the Effective Date is between two Effective Dates in the table, the number of Additional Shares shall be determined by straight-line interpolation between the number of Additional Shares set forth for the higher and lower Stock Prices and the earlier and later Effective Dates, as applicable, based on a 365-day year;

(ii) if the Stock Price is more than \$75.00 per share (subject to adjustment in the same manner as the Stock Prices set forth in the column headings of the table above), no Additional Shares shall be added to the Conversion Rate; and

(iii) if the Stock Price is less than \$10.25 per share (subject to adjustment in the same manner as the Stock Prices set forth in the column headings of the table), no Additional Shares shall be added to the Conversion Rate.

Notwithstanding the foregoing, in no event shall the total number of shares of Common Stock issuable upon conversion exceed 97.5610 per \$1,000 principal amount of Securities, subject to adjustment in the same manner, at the same time and for the same events as the Conversion Rate as set forth in Section 5.05.

Section 5.05. *Conversion Rate Adjustments.* The Conversion Rate shall be adjusted, without duplication, from time to time by the Company, upon the occurrence of any of the following events, except that the Company shall not make any adjustments to the Conversion Rate if Holders of the Securities participate (other than in the case of a share split or share combination), at the same time and upon the same terms as holders of the Common Stock and solely as a result of holding the Securities, in any of the events described in this Section 5.05, without having to convert their Securities as if they held a number of shares of Common Stock equal to the Conversion Rate, *multiplied* by the principal amount (expressed in thousands) of Securities held by such Holder.

(a) If the Company exclusively issues shares of Common Stock as a dividend or distribution on shares of its Common Stock, or if the Company effects a share split or share combination, the Conversion Rate shall be adjusted based on the following formula:

$$CR1 = CR0 \times \frac{OS1}{OS0}$$

where,

- CR0 = the Conversion Rate in effect immediately prior to the open of business on the Ex-Dividend Date of such dividend or distribution, or immediately prior to the open of business on the effective date of such share split or share combination, as applicable;
- CR1 = the Conversion Rate in effect immediately after the open of business on such Ex-Dividend Date or effective date;
- OS0 = the number of shares of Common Stock outstanding immediately prior to the open of business on such Ex-Dividend Date or effective date; and
- OS1 = the number of shares of Common Stock outstanding immediately after giving effect to such dividend, distribution, share split or share combination.

Any adjustment made under this Section 5.05(a) shall become effective immediately after the open of business on the Ex-Dividend Date for such dividend or distribution, or immediately after the open of business on the effective date for such share split or share combination, as applicable. If any dividend or distribution of the type described in this Section 5.05(a) is declared but not so paid or made, the Conversion Rate shall be immediately readjusted, effective as of the date the Board of Directors determines not to pay such dividend or distribution, to the Conversion Rate that would then be in effect if such dividend or distribution had not been declared.

(b) If the Company issues to all or substantially all holders of its Common Stock any rights, options or warrants entitling them, for a period of not more than 60 calendar days after the announcement date of such issuance, to subscribe for or purchase shares of Common Stock at a price per share that is less than the average of the Last Reported Sale Prices of the Common Stock for the five consecutive Trading Day period ending on, and including, the Trading Day immediately preceding the date of announcement of such issuance, the Conversion Rate shall be increased based on the following formula:

$$CR1 = CR0 \times \frac{OS0 + X}{OS0 + Y}$$

where,

- CR0 = the Conversion Rate in effect immediately prior to the open of business on the Ex-Dividend Date for such issuance;
- CR1 = the Conversion Rate in effect immediately after the open of business on such Ex-Dividend Date;
- OS0 = the number of shares of Common Stock outstanding immediately prior to the open of business on such Ex-Dividend Date;
- X = the total number of shares of Common Stock issuable pursuant to such rights, options or warrants; and
- Y = the number of shares of Common Stock equal to the aggregate price payable to exercise such rights, options or warrants, *divided by* the average of the Last Reported Sale Prices of the Common Stock over the five consecutive Trading Day period ending on, and including, the Trading Day immediately preceding the date of announcement of the issuance of such rights, options or warrants.

Any increase made under this Section 5.05(b) shall be made successively whenever any such rights, options or warrants are issued and shall become effective immediately after the open of business on the Ex-Dividend Date for such issuance. To the extent that shares of the Common Stock are not delivered after the expiration of such rights, options or warrants, the Conversion Rate shall be decreased to the Conversion Rate that would then be in effect had the increase with respect to the issuance of such rights, options or warrants been made on the basis of delivery of only the number of shares of Common Stock actually delivered. If such rights, options or warrants are not so issued, the Conversion Rate shall be decreased to the Conversion Rate that would then be in effect if such Ex-Dividend Date for such issuance had not occurred.

For purposes of this Section 5.05(b), in determining whether any rights, options or warrants entitle the holders to subscribe for or purchase shares of the Common Stock at less than such average of the Last Reported Sale Prices of the Common Stock for the five consecutive Trading Day period ending on, and including, the Trading Day immediately preceding the date of announcement for such issuance, and in determining the aggregate offering price of such shares of Common Stock, there shall be taken into account any consideration received by the Company for such rights, options or warrants and any amount payable on exercise or conversion thereof, the value of such consideration, if other than cash, to be determined by the Board of Directors.

(c) If the Company distributes shares of its Capital Stock, evidences of its indebtedness, other assets or property or rights, options or warrants to acquire its Capital Stock or other securities, to all or substantially all holders of the Common Stock, excluding (i) dividends, distributions or issuances as to which an adjustment is effected pursuant to Section 5.05(a) or Section 5.05(b), (ii) dividends or distributions paid exclusively in cash as to which an adjustment is effected pursuant to Section 5.05(d), (iii) Spin-Offs as to which the provisions set forth below in this Section 5.05(c) shall apply, (iv) any dividend or distributions in connection with any event described under Section 5.07, and (v) Non-Separate Rights (any of such shares of Capital Stock, evidences of indebtedness, other assets or property or rights, options or warrants to acquire Capital Stock or other securities of the Company, the “**Distributed Property**”), then the Conversion Rate shall be increased based on the following formula:

$$CR1 = CR0 \times \frac{SP0}{SP0 - FMV}$$

where,

CR0 = the Conversion Rate in effect immediately prior to the open of business on the Ex-Dividend Date for such distribution;

CR1 = the Conversion Rate in effect immediately after the open of business on such Ex-Dividend Date;

SP0 = the average of the Last Reported Sale Prices of the Common Stock over the five consecutive Trading Day period ending on, and including, the Trading Day immediately preceding the Ex-Dividend Date for such distribution; and

FMV = the fair market value (as determined by the Board of Directors) of the Distributed Property with respect to each outstanding share of the Common Stock on the Ex-Dividend Date for such distribution.

Any increase made under the portion of this Section 5.05(c) above shall become effective immediately after the open of business on the Ex-Dividend Date for such distribution. If such distribution is not so paid or made, the Conversion Rate shall be decreased to the Conversion Rate that would then be in effect if such dividend or distribution had not been declared.

Notwithstanding the foregoing, if “FMV” (as defined above) is equal to or greater than “SP0” (as defined above), in lieu of the foregoing increase, each Holder of a Security shall receive, in respect of each \$1,000 principal amount thereof, at the same time and upon the same terms as holders of the Common Stock receive the Distributed Property, the amount of Distributed Property such Holder would have received if such Holder owned a number of shares of Common Stock equal to the Conversion Rate in effect on the Ex-Dividend Date for the distribution.

If the Board of Directors determines the “FMV” (as defined above) of any distribution for purposes of this Section 5.05(c) by reference to the actual or when-issued trading market for any securities, it shall in doing so consider the prices in such market over the same period used in computing the Last Reported Sale Prices of the Common Stock over the five consecutive Trading Day period ending on, and including, the Trading Day immediately preceding the Ex-Dividend Date for such distribution.

With respect to an adjustment pursuant to this Section 5.05(c) where there has been a payment of a dividend or other distribution on the Common Stock of shares of Capital Stock of any class or series, or similar equity interest, of or relating to a Subsidiary or other business unit of the Company, that are, or, when issued, will be, listed or admitted for trading on a U.S. national securities exchange (a “Spin-Off”), the Conversion Rate shall be increased based on the following formula:

$$CR1 = CR0 \times \frac{FMV0 + MP0}{MP0}$$

where,

CR0 = the Conversion Rate in effect immediately prior to the end of the Valuation Period;

CR1 = the Conversion Rate in effect immediately after the end of the Valuation Period;

FMV0 = the average of the Last Reported Sale Prices of the Capital Stock or similar equity interest distributed to holders of the Common Stock applicable to one share of the Common Stock (determined by reference to the definition of Last Reported Sale Price as if references therein to Common Stock were to such Capital Stock or similar equity interest) over the first five consecutive Trading Day period after, and including, the Ex-Dividend Date of the Spin-Off (the “Valuation Period”); and

MP0 = the average of the Last Reported Sale Prices of the Common Stock over the Valuation Period.

The adjustment to the Conversion Rate under the preceding paragraph shall occur at the close of business on the last Trading Day of the Valuation Period; *provided* that because the Company will make the adjustment to the Conversion Rate at the end of the Valuation Period with retroactive effect, the Company will delay the settlement of any Securities where the last day of the related Observation Period occurs during the Valuation Period. In such event, notwithstanding Section 5.02(a)(i), the Company will pay the cash and deliver any shares of Common Stock (subject to the Company’s right to deliver cash in lieu of such shares of Common Stock) due upon conversion (based on the adjusted Conversion Rate as described above) on the third Business Day immediately following the last day of the Valuation Period.

For purposes of this Section 5.05(c) (and subject in all respect to Section 5.09), rights, options or warrants distributed by the Company, pursuant to a stockholder rights plan to all or substantially all holders of its Common Stock entitling them to subscribe for or purchase shares of the Company’s Capital Stock, including Common Stock (either initially or under certain circumstances), which rights, options or warrants, until the occurrence of a specified event or events (“Trigger Event”): (i) are deemed to be transferred with such shares of the Common Stock; (ii) are not exercisable; and (iii) are also issued in respect of future issuances of the Common Stock, shall be deemed not to have been distributed for purposes of this Section 5.05(c) (and no adjustment to the Conversion Rate under this Section 5.05(c) will be required) until the occurrence of the earliest Trigger Event, whereupon such rights, options or warrants shall be deemed to have been distributed and an appropriate adjustment (if any is required) to the Conversion Rate shall be made under this Section 5.05(c). If any such right, option or warrant, including any such existing rights, options or warrants distributed prior to the date of this Indenture, are subject to events, upon the occurrence of which such rights, options or warrants become exercisable to purchase different securities, evidences of indebtedness or other assets, then the date of the occurrence of any and each such event shall be deemed to be the date of distribution and Ex-Dividend Date with respect to new rights, options or warrants with such rights (in which case the existing rights, options or warrants shall be deemed to terminate and expire on such date without exercise by any of the holders thereof). In addition, in the event of any distribution (or deemed distribution) of rights, options or warrants, or any Trigger Event or other event (of the type described in the immediately preceding sentence) with respect thereto that was counted for purposes of calculating a distribution amount for which an adjustment to the Conversion Rate under this Section 5.05(c) was made, (1) in the case of any such rights, options or warrants that shall all have been redeemed or purchased without exercise by any holders thereof, upon such final redemption or purchase (x) the Conversion Rate shall be readjusted as if such rights, options or warrants had not been issued and (y) the Conversion Rate shall then again be readjusted to give effect to such distribution, deemed distribution or Trigger Event, as the case may be, as though it were a cash distribution, equal to the per share redemption or purchase price received by a holder or holders of Common Stock with respect to such rights, options or warrants (assuming such holder had retained such rights, options or warrants), made to all holders of Common Stock as of the date of such redemption or purchase, and (2) in the case of such rights, options or warrants that shall have expired or been terminated without exercise by any holders thereof, the Conversion Rate shall be readjusted as if such rights, options and warrants had not been issued.

For purposes of Section 5.05(a), Section 5.05(b) and this Section 5.05(c), any dividend or distribution to which this Section 5.05(c) is applicable that also includes one or both of:

(A) a dividend or distribution of shares of Common Stock to which Section 5.05(a) is applicable (the “**Clause A Distribution**”); or

(B) a dividend or distribution of rights, options or warrants to which Section 5.05(b) is applicable (the “**Clause B Distribution**”),

then (1) such dividend or distribution, other than the Clause A Distribution and the Clause B Distribution, shall be deemed to be a dividend or distribution to which this Section 5.05(c) is applicable (the “**Clause C Distribution**”) and any Conversion Rate adjustment required by this Section 5.05(c) with respect to such Clause C Distribution shall then be made, and (2) the Clause A Distribution and Clause B Distribution shall be deemed to immediately follow the Clause C Distribution and any Conversion Rate adjustment required by Section 5.05(a) and Section 5.05(b) with respect thereto shall then be made, except that, if determined by the Company (I) the “Ex-Dividend Date” of the Clause A Distribution and the Clause B Distribution shall be deemed to be the Ex-Dividend Date of the Clause C Distribution and (II) any shares of Common Stock included in the Clause A Distribution or Clause B Distribution shall be deemed not to be “outstanding immediately prior to the open of business on such Ex-Dividend Date or effective date” within the meaning of Section 5.05(a) or “outstanding immediately prior to the open of business on such Ex-Dividend Date” within the meaning of Section 5.05(b).

(d) If the Company makes any cash dividend or distribution to all or substantially all holders of the Common Stock, the Conversion Rate shall be adjusted based on the following formula:

$$CR1 = CR0 \times \frac{SP0}{SP0 - C}$$

where,

CR0 = the Conversion Rate in effect immediately prior to the open of business on the Ex-Dividend Date for such dividend or distribution;

CR1 = the Conversion Rate in effect immediately after the open of business on the Ex-Dividend Date for such dividend or distribution;

SP0 = the average of the Last Reported Sale Prices of the Common Stock over the five consecutive Trading Day period ending on, and including, the Trading Day immediately preceding the Ex-Dividend Date for such dividend or distribution; and

C = the amount in cash per share the Company distributes to holders of its Common Stock.

Any increase pursuant to this Section 5.05(d) shall become effective immediately after the open of business on the Ex-Dividend Date for such dividend or distribution. If such dividend or distribution is not so paid, the Conversion Rate shall be decreased, effective as of the date the Board of Directors determines not to make or pay such dividend or distribution, to the Conversion Rate that would then be in effect if such dividend or distribution had not been declared.

Notwithstanding the foregoing, if “C” (as defined above) is equal to or greater than “SP0” (as defined above), in lieu of the foregoing increase, each Holder of a Security shall receive, for each \$1,000 principal amount of Securities, at the same time and upon the same terms as holders of shares of the Common Stock, the amount of cash that such Holder would have received if such Holder owned a number of shares of Common Stock equal to the Conversion Rate on the Ex-Dividend Date for such cash dividend or distribution.

(e) If the Company or any of its Subsidiaries makes a payment in respect of a tender offer or exchange offer for the Common Stock, to the extent that the cash and value of any other consideration included in the payment per share of the Common Stock exceeds the Last Reported Sale Price of the Common Stock on the Trading Day next succeeding the last date on which tenders or exchanges may be made pursuant to such tender offer or exchange offer, as the case may be, the Conversion Rate shall be increased based on the following formula:

$$CR1 = CR0 \times \frac{AC + (SP1 \times OS1)}{OS0 \times SP1}$$

where,

- CR0 = the Conversion Rate in effect immediately prior to the close of business on the Trading Day next succeeding the date such tender or exchange offer expires;
- CR1 = the Conversion Rate in effect immediately after the close of business on the Trading Day next succeeding the date such tender or exchange offer expires;
- AC = the aggregate value of all cash and any other consideration (as determined by the Board of Directors) paid or payable for shares of Common Stock purchased in such tender or exchange offer;
- OS0 = the number of shares of Common Stock outstanding immediately prior to the date such tender or exchange offer expires (prior to giving effect to the purchase of all shares of Common Stock accepted for purchase or exchange in such tender or exchange offer);
- OS1 = the number of shares of Common Stock outstanding immediately after the date such tender or exchange offer expires (after giving effect to the purchase of all shares of Common Stock accepted for purchase or exchange in such tender or exchange offer); and
- SP1 = the average of the Last Reported Sale Prices of the Common Stock over the five consecutive Trading Day period commencing on, and including, the Trading Day next succeeding the date such tender or exchange offer expires (the "Offer Valuation Period").

The adjustment to the Conversion Rate under this Section 5.05(e) shall occur at the close of business on the Trading Day next succeeding the date such tender or exchange offer expires, *provided* that because the Company will make the adjustment to the Conversion Rate at the end of the Offer Valuation Period with retroactive effect, the Company will delay the settlement of any Securities where the last day of the related Observation Period occurs during the Offer Valuation Period. In such event, notwithstanding Section 5.02(a)(i), the Company will pay the cash and deliver any shares of Common Stock (subject to the Company's right to deliver cash in lieu of such shares of Common Stock) due upon conversion (based on the adjusted Conversion Rate as described above) on the third Business Day immediately following the last day of the Offer Valuation Period.

(f) Notwithstanding this Section 5.05 or any other provision of this Indenture or the Securities, if a Conversion Rate adjustment becomes effective on any Ex-Dividend Date, and a Holder that has converted its Securities on or after such Ex-Dividend Date and on or prior to the related Record Date would be treated as the record holder of the Common Stock as of the related Conversion Date as described under Section 5.02 (j) based on an adjusted Conversion Rate for such Ex-Dividend Date, then, notwithstanding the Conversion Rate adjustment provisions in this Section 5.05, the Conversion Rate adjustment relating to such Ex-Dividend Date shall not be made for such converting Holder. Instead, such Holder shall be treated as if such Holder were the record owner of the shares of Common Stock on an unadjusted basis and participate in the related dividend, distribution or other event giving rise to such adjustment.

(g) Except as stated herein, the Company shall not adjust the Conversion Rate for the issuance of shares of its Common Stock or any securities convertible into or exchangeable for shares of its Common Stock or the right to purchase shares of its Common Stock or such convertible or exchangeable securities.

(h) In addition to those adjustments required by subsections (a), (b), (c), (d) and (e) of this Section 5.05, and to the extent permitted by applicable law and subject to the stockholder approval requirements of the NASDAQ Global Select Market, the Company from time to time may increase the Conversion Rate by any amount for any period of at least 20 Business Days if the Board of Directors has determined that such increase would be in the Company's best interest. In addition, the Company may (but is not required to) increase the Conversion Rate, as the Board of Directors considers advisable, to avoid or diminish any income tax to holders of Common Stock or rights to purchase Common Stock resulting from any dividend or distribution of stock (or rights to acquire stock) or from any event treated as such for income tax purposes to the extent permitted by applicable law and subject to the stockholder approval requirements of the NASDAQ Global Select Market. Whenever the Conversion Rate is increased pursuant to either of the preceding two sentences, the Company shall mail to the Holder of each Security at its last address appearing on the register of the Primary Registrar a notice of the increase at least 15 days prior to the date the increased Conversion Rate takes effect, and such notice shall state the increased Conversion Rate and the period during which it will be in effect.

(i) If the application of the adjustments required by subsections (a), (b), (c), (d) and (e) of this Section 5.05 would result in a decrease in the Conversion Rate, no adjustment to the Conversion Rate shall be made (other than as a result of a reverse share split or other share combination).

(j) Notwithstanding anything to the contrary in this Section 5.05, the Conversion Rate shall not be adjusted:

(i) upon the issuance of any shares of Common Stock pursuant to any present or future plan providing for the reinvestment of dividends or interest payable on the Company's securities and the investment of additional optional amounts in shares of Common Stock under any plan;

(ii) upon the issuance of any shares of Common Stock or options or rights to purchase those shares pursuant to any present or future employee, director or consultant benefit plan or program of or assumed by the Company or any of its Subsidiaries;

(iii) upon the issuance of any shares of Common Stock pursuant to any option, warrant, right or exercisable, exchangeable or convertible security not described in clause (ii) of this subsection (j) and outstanding as of the date the Securities were first issued;

(iv) solely for a change in the par value of the Common Stock; or

(v) for accrued and unpaid interest, if any.

(k) All calculations and other determinations in respect of the Conversion Rate shall be made by the Company to the nearest 1/10,000th of a share.

(l) Whenever the Conversion Rate is adjusted pursuant to this Section 5.05, the Company shall compute the adjusted Conversion Rate in accordance with this Section 5.05 and shall prepare an Officers' Certificate setting forth (i) the adjusted Conversion Rate, (ii) the subsection of this Section 5.05 pursuant to which such adjustment has been made, showing in reasonable detail the facts upon which such adjustment is based, (iii) the calculation of such adjustment and (iv) the date as of which such adjustment is effective, and such Officers' Certificate shall promptly be delivered to the Trustee and each Conversion Agent (which certificates shall be conclusive evidence of the accuracy of such adjustment absent manifest error). As soon as practicable after each such adjustment, the Company shall deliver to the Holders a notice stating that the Conversion Rate has been adjusted and setting forth the adjusted Conversion Rate. Unless and until a Responsible Officer of the Trustee shall receive an Officers' Certificate with respect to an adjustment of the Conversion Rate, the Trustee may assume without inquiry that the Conversion Rate has not been adjusted and that the last Conversion Rate of which it has knowledge remains in effect. Neither the Trustee nor any Conversion Agent shall be under any duty or responsibility with respect to any such certificate or the information and calculations contained therein, except to exhibit the same to any Holder of Securities desiring inspection thereof at its office during normal business hours.

Simultaneously with an adjustment of the Conversion Rate, the Company shall disseminate a press release detailing the new Conversion Rate and other relevant information.

(m) For purposes of this Section 5.05, the number of shares of Common Stock at any time outstanding shall not include shares held in the treasury of the Company so long as the Company does not pay any dividend or make any distribution on shares of Common Stock held in the treasury of the Company, but shall include shares issuable in respect of scrip certificates issued in lieu of fractions of shares of Common Stock.

(n) If the Company is required by applicable law to pay, and pays, withholding tax on behalf of a Holder as a result of an adjustment to the Conversion Rate, the Company may, at its option, set off or cause to be set off such withholding tax against any payments of cash or shares of Common Stock on the Securities (or, if such withholding tax has not previously been fully set off against such cash or shares, against any payments on the shares of Common Stock).

Section 5.06. *Adjustments of Prices.* Whenever any provision of this Indenture requires the Company to calculate the Last Reported Sale Prices, the Daily VWAPs, the Daily Conversion Values or the Daily Settlement Amounts over a span of multiple days (including an Observation Period and the period for determining the Stock Price for purposes of a Make-Whole Fundamental Change), the Board of Directors shall make appropriate adjustments to each to account for any adjustment to the Conversion Rate that becomes effective, or any event requiring an adjustment to the Conversion Rate where the Ex-Dividend Date of the event occurs, at any time during the relevant period. Without limiting the foregoing, and by way of example, with respect to any Securities converted where a portion of the related Observation Period occurs during a Valuation Period, for a Spin-Off, any adjustment with respect to such Spin-Off will be given retroactive effect to such portion of the Observation Period.

Section 5.07. *Effect of Recapitalizations, Reclassifications and Changes of the Common Stock.* (a) In the case of:

(i) any recapitalization, reclassification or change of the Common Stock (other than changes resulting from a subdivision or combination),

(ii) any consolidation, merger or combination involving the Company,

(iii) any sale, lease or other transfer to a third party of the consolidated assets of the Company and the Company's Subsidiaries substantially as an entirety, or

(iv) any statutory share exchange,

in each case as a result of which the Common Stock would be converted into, or exchanged for, stock, other securities, other property or assets (including cash or any combination thereof) (any such event, a "**Merger Event**"), then, at and after the effective time of such Merger Event, the right to convert each \$1,000 principal amount of Securities shall be changed into a right to convert such principal amount of Securities into the kind and amount of shares of stock, other securities or other property or assets (including cash or any combination thereof) that a holder of a number of shares of Common Stock equal to the Conversion Rate in effect immediately prior to such Merger Event would have owned or been entitled to receive (the "**Reference Property**", with each "**unit of Reference Property**" meaning the kind and amount of Reference Property that a holder of one share of Common Stock is entitled to receive) upon such Merger Event and, prior to or at the effective time of such Merger Event, the Company or the successor or purchasing Person, as the case may be, shall execute with the Trustee a supplemental indenture permitted under Section 11.02 providing for such change in the right to convert each \$1,000 principal amount of Securities; *provided, however*, that at and after the effective time of the Merger Event (A) the Company shall continue to have the right to determine the form of consideration to be paid or delivered, as the case may be, upon conversion of Securities in accordance with Section 5.02 and (B)(I) any amount payable in cash upon

conversion of the Securities in accordance with Section 5.02 shall continue to be payable in cash, (II) any shares of Common Stock that the Company would have been required to deliver upon conversion of the Securities in accordance with Section 5.02 shall instead be deliverable in the amount and type of Reference Property that a holder of that number of shares of Common Stock would have been entitled to receive in such Merger Event and (III) the Daily VWAP shall be calculated based on the value of a unit of Reference Property. If the Merger Event causes the Common Stock to be converted into, or exchanged for, the right to receive more than a single type of consideration (determined based in part upon any form of stockholder election), then the Reference Property into which the Securities will be convertible shall be deemed to be the weighted average of the types and amounts of consideration received by the holders of Common Stock that affirmatively make such an election. The Company shall notify Holders, the Trustee and the Conversion Agent of the weighted average as soon as practicable after the determination is made.

If the holders of Common Stock receive only cash in such Merger Event, then for all conversions that occur after the effective date of such Merger Event (x) the consideration due upon conversion of each \$1,000 principal amount of Securities shall be solely cash in an amount equal to the Conversion Rate in effect on the Conversion Date (as will be increased by any Additional Shares pursuant to Section 5.04, if applicable), *multiplied* by the price paid per share of Common Stock in such Merger Event and (y) the Company shall satisfy the Conversion Obligation by paying cash to converting Holders on the third Scheduled Trading Day immediately following the Conversion Date.

Such supplemental indenture described in the second immediately preceding paragraph shall provide for adjustments that shall be as nearly equivalent as is possible to the adjustments provided for in this Article 5. If, in the case of any Merger Event, the Reference Property includes shares of stock, securities or other property or assets (including cash or any combination thereof) of a Person other than the successor or purchasing corporation, as the case may be, in such Merger Event, then such supplemental indenture shall also be executed by such other Person and shall contain such additional provisions to protect the interests of the Holders of the Securities as the Board of Directors shall reasonably consider necessary by reason of the foregoing, including to the extent required by the Board of Directors and practicable the provisions providing for the repurchase rights set forth in Article 4.

(b) In the event the Company shall execute a supplemental indenture pursuant to subsection (a) of this Section 5.07, the Company shall promptly file with the Trustee an Officers' Certificate briefly stating the reasons therefor, the kind or amount of cash, securities or property or asset that will comprise the Reference Property after any such Merger Event, any adjustment to be made with respect thereto and that all conditions precedent have been complied with, and shall promptly mail notice thereof to all Holders. The Company shall cause notice of the execution of such supplemental indenture to be mailed to each Holder, at its address appearing on the register of the Primary Registrar provided for in this Indenture, within 20 days after execution thereof. Failure to deliver such notice shall not affect the legality or validity of such supplemental indenture.

(c) The Company shall not become a party to any Merger Event unless its terms are consistent with this Section 5.07. None of the foregoing provisions shall affect the right of a holder of Securities to convert its Securities into cash, shares of Common Stock or a combination of cash and shares of Common Stock, as applicable, as set forth in Section 5.01 and Section 5.02 prior to the effective date of such Merger Event.

(d) The above provisions of this Section 5.07 shall similarly apply to successive Merger Events.

Section 5.08. *Cancellation of Converted Securities.* All Certificated Securities delivered for conversion shall be delivered to the Trustee or its agent to be canceled by or at the direction of the Trustee, which shall dispose of the same as provided in this Indenture. Upon conversions of beneficial interests in any Global Security, the Trustee or the Securities Custodian, at the direction of the Trustee, shall reduce the aggregate principal amount of outstanding Securities represented by such Global Security to reflect the conversion.

Section 5.09. *Stockholders Rights*. To the extent that the Company has a stockholder rights plan in effect upon conversion of the Securities, each share of Common Stock, if any, issued upon such conversion shall be entitled to receive the appropriate number of rights, if any, and the certificates representing the Common Stock issued upon such conversion shall bear such legends, if any, in each case as may be provided by the terms of any such stockholder rights plan, as the same may be amended from time to time (such rights prior to separation from the Common Stock, “**Non-Separate Rights**”). If at the time of conversion, however, the rights have separated from the shares of Common Stock in accordance with the provisions of the applicable stockholder rights plan so that the Holders would not be entitled to receive any rights in respect of Common Stock, if any, issuable upon conversion of the Securities, the Conversion Rate shall be increased at the time of separation as if the Company distributed to all or substantially all holders of Common Stock shares of Capital Stock of the Company, evidences of its indebtedness, other assets or property or rights, options or warrants to acquire its Capital Stock or other securities as provided in Section 5.05(c), subject to decrease in the event of the expiration, termination or redemption of such rights. A distribution of rights pursuant to such a stockholder rights plan shall not trigger a Conversion Rate adjustment pursuant to Section 5.05(c) if Holders of the Securities participate in such distribution on an as-converted basis in accordance with the first paragraph of Section 5.05.

Section 5.10. *Trustee’s Disclaimer*. (a) The Trustee shall have no duty to determine when an adjustment under this Article 5 should be made, how it should be made or what such adjustment should be, but may accept as conclusive evidence of that fact or the correctness of any such adjustment, and shall be protected in relying upon, the Officers’ Certificate that the Company is obligated to deliver to the Trustee pursuant to Section 5.05(l). The Trustee makes no representation as to the validity or value of any securities or assets issued upon conversion of Securities, and the Trustee shall not be responsible for the Company’s failure to comply with any provisions of this Article 5. The Trustee, the Bid Solicitation Agent and the Conversion Agent shall have no responsibility for determination of the Daily Settlement Amounts (if applicable) or the Daily Conversion Values (if applicable). In addition, in no event shall the Trustee, the Bid Solicitation Agent or Conversion Agent be responsible for making any calculations under this Indenture or for determining amounts to be paid or for monitoring any Stock Price. For the avoidance of doubt, the Trustee, the Bid Solicitation Agent and Conversion Agent shall rely conclusively on the calculations and information provided to them by the Company as to the Daily VWAP, Trading Price, Daily Conversion Value, Daily Settlement Amount and Last Reported Sale Price. Nor shall the Trustee, the Bid Solicitation Agent or Conversion Agent be charged with knowledge of or have any duties to monitor any Measurement Period or Observation Period.

(b) The Trustee shall not be under any responsibility to determine the correctness of any provisions contained in any supplemental indenture executed pursuant to Section 7.02, but may accept as conclusive evidence of the correctness thereof, and shall be fully protected in relying upon, the Officers’ Certificate with respect thereto which the Company is obligated to file with the Trustee pursuant to Section 7.02.

ARTICLE 6 COVENANTS

Section 6.01. *General*. Sections 4.01, 4.05 and 4.06 of Article IV and Section 5.03 of Article V of the Original Indenture shall not apply to, and have no force and effect with respect to, the Securities and any reference to Article IV or Sections 4.01, 4.05 and 4.06 and Section 5.03 of Article V of the Original Indenture shall be superseded by and references thereto shall be deemed to refer to this Article 6 and Sections 6.02, 6.06, 6.04 and 6.03, respectively, of this First Supplemental Indenture.

Section 6.02. *Payment on the Securities*. The Company shall promptly make all payments in respect of the Securities on the dates and in the manner provided in the Securities and this Indenture. Principal (including the Fundamental Change Repurchase Price, if applicable) of and interest on the Securities shall be considered paid on the date it is due, if the Paying Agent (if other than the Company or an Affiliate thereof) holds as of 11:00 a.m., New York City time, on the due date money, deposited by the Company or an Affiliate thereof in immediately available funds, designated for and sufficient to pay all principal (including the Fundamental Change Repurchase Price) and interest then due on the Securities.

Payment of the principal of and interest on the Securities shall be made at the office or agency of the Company maintained for that purpose in Pittsburgh, Pennsylvania (which shall initially be an office or agency of the Trustee in Pittsburgh, Pennsylvania); *provided, however*, that at the option of the Company payment of interest may be made by check mailed to the address of the Person entitled thereto as such address appears in the Register; *provided further* that a Holder with an aggregate principal amount in excess of \$2,000,000 will be paid by wire transfer in immediately available funds at the election of such Holder if such Holder has provided wire transfer instructions to the Company and the Trustee at least 10 Business Days prior to the payment date, it being understood that as long as the Securities are Global Securities, payment will be made by wire transfer to DTC.

Section 6.03. *SEC Reports.*

(a) The Company shall file copies of the annual reports and of the information, documents and other reports (or copies of such portions of any of the foregoing as the SEC may from time to time by rules and regulations prescribe) that the Company is required to file with the SEC pursuant to Section 13 or 15(d) of the Exchange Act with the Trustee within 15 days after the Company is required to file the same with the SEC; or, if the Company is not required to file information, documents or reports with the SEC, then the Company shall file with the Trustee and the SEC, if permitted, in accordance with the rules and regulations prescribed from time to time by the SEC, such of the supplementary and periodic information, documents and reports that may be required in respect of an issuer of a security listed and registered on a national securities exchange as may be prescribed from time to time in such rules and regulations. Documents filed by the Company with the SEC via the EDGAR system or any successor system shall be deemed to be filed with the Trustee as of the time such documents are filed via EDGAR. The Company shall at all times comply with the TIA Section 314(a).

(b) Delivery of such reports, information and documents to the Trustee is for informational purposes only and the Trustee's receipt of such shall not constitute constructive notice of any information contained therein or determinable from information contained therein, including the Company's compliance with any of its covenants hereunder (as to which the Trustee is entitled to rely exclusively on Officers' Certificates).

Section 6.04. *Compliance Certificates.*

(a) The Company shall deliver to the Trustee, within 120 days after the end of each fiscal year during which any Securities were outstanding, an Officers' Certificate stating whether or not the signer thereof knows of any Default or Event of Default that occurred during such fiscal year. Such Officers' Certificate shall contain a certification from the principal executive officer, principal financial officer or principal accounting officer of the Company that a review has been conducted of the activities of the Company and the Company's performance under this Indenture and that the Company has complied with all conditions and covenants under this Indenture. For purposes of this Section 6.04, such compliance shall be determined without regard to any period of grace or requirement of notice provided under this Indenture. If the officer of the Company signing such Officers' Certificate has knowledge of such a Default or Event of Default, the Officers' Certificate shall describe any such Default or Event of Default and its status.

(b) The Company shall, so long as any of the Securities are outstanding, deliver to the Trustee, forthwith, and in any event within five days, upon any Officer becoming aware of any Default or Event of Default, an Officers' Certificate specifying such Default or Event of Default and what action the Company is taking or proposes to take with respect thereto.

Section 6.05. *Further Instruments and Acts.* Upon request of the Trustee, the Company will execute and deliver such further instruments and do such further acts as may be reasonably necessary or proper to carry out more effectively the purposes of this Indenture.

Section 6.06. *Maintenance of Corporate Existence.* Subject to Article 7, the Company will do or cause to be done all things necessary to preserve and keep in full force and effect its corporate existence.

Section 6.07. *Stay, Extension and Usury Laws.* The Company covenants (to the extent that it may lawfully do so) that it shall not at any time insist upon, plead, or in any manner whatsoever claim or take the benefit or advantage of, any stay, extension or usury law or other law which would prohibit or forgive the Company from paying all or any portion of the principal of or interest on the Securities as contemplated herein, wherever enacted, now or at any time hereafter in force, or which may affect the covenants or the performance of this Indenture, and the Company (to the extent it may lawfully do so) hereby expressly waives all benefit or advantage of any such law and covenants that it will not, by resort to any such law, hinder, delay or impede the execution of any power herein granted to the Trustee, but will suffer and permit the execution of every such power as though no such law had been enacted.

ARTICLE 7
CONSOLIDATION, MERGER, SALE, CONVEYANCE, TRANSFER OR LEASE

Section 7.01. *General.* Article X of the Original Indenture shall not apply to, and have no force and effect with respect to, the Securities and any reference to Article X or the Sections of Article X of the Original Indenture shall be superseded by and references thereto shall be deemed to refer to this Article 7 and the Sections of this Article 7, respectively, of this First Supplemental Indenture.

Section 7.02. *Company May Consolidate, Etc, Only on Certain Terms.* The Company shall not consolidate or enter into a share exchange with or merge with or into any other Person, or sell, convey, transfer or lease the properties and assets of the Company substantially as an entirety to any Person, unless:

(a) in case the Company shall consolidate with or merge into another Person (in a transaction in which the Company is not the surviving corporation) or sell, convey, transfer or lease all of its properties and assets substantially as an entirety to another Person, the Person formed by such consolidation or into which the Company is merged or the Person which acquires by sale, conveyance or transfer, or which leases, all of the properties and assets substantially as an entirety of the Company shall:

(i) the successor or transferee person, if not us, is a corporation or limited liability company organized and existing under the laws of the United States, any State of the United States, or the District of Columbia; provided that the property into which the Securities shall be convertible shall be cash and/or the stock or other equity (or American Depositary Receipts representing common stock) of an entity that is a corporation for U.S. federal income tax purposes; provided further that, with respect to stock or other equity or American Depositary Receipts representing common stock of an entity organized under the laws of a jurisdiction outside the U.S., such entity has a worldwide market capitalization of its equity securities of at least \$5,000,000,000 before giving effect to the merger, sale, conveyance, transfer or lease and such stock or other equity or American Depositary Receipts representing common stock is listed on any of The New York Stock Exchange, The NASDAQ Global Select Market or The NASDAQ Global Market (or any of their respective successors); and

(ii) expressly assume, by an indenture supplemental hereto, executed and delivered to the Trustee, in form satisfactory to the Trustee, the due and punctual payment of the principal of and interest on all the Securities and the performance or observance of every covenant of this Indenture on the part of the Company to be performed or observed and the conversion rights shall be provided for in accordance with Article 5, by supplemental indenture satisfactory in form to the Trustee, executed and delivered to the Trustee, by the Person (if other than the Company) formed by such consolidation or into which the Company shall have been merged or by the Person which shall have acquired the Company' s assets;

(b) immediately after giving effect to such transaction, no Event of Default, and no event which, after notice or lapse of time or both, would become an Event of Default, shall have happened and be continuing; and

(c) the Company has delivered to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that such consolidation, merger, sale, conveyance, transfer or lease and, if a supplemental indenture is required in connection with such transaction, such supplemental indenture, comply with this Article 7 and that all conditions precedent herein provided for relating to such transaction have been complied with.

Notwithstanding anything to the contrary herein, the Company may merge with an Affiliate of the Company solely for the purpose of reincorporating the Company in another jurisdiction in the United States of America, any State thereof or the District of Columbia, and the Company may convert into a limited liability company if the condition set forth in the *proviso* of clause (a)(i) of this Section 7.02 shall be satisfied.

Section 7.03. *Successor Substituted.* Upon any consolidation of the Company with, or merger of the Company into, any other Person or any sale, conveyance, transfer or lease of the properties and assets of the Company substantially as an entirety in accordance with Section 7.02, there shall be an adjustment to the Conversion Obligation and the successor Person formed by such consolidation or into which the Company is merged or to which such sale, conveyance, transfer or lease of the properties and assets of the Company substantially as an entirety is made shall succeed to, and be substituted for, and may exercise every right and power of, the Company under this Indenture with the same effect as if such successor Person had been named as the Company herein, and thereafter, except in the case of a lease, the predecessor Person shall be relieved of all obligations and covenants under this Indenture and the Securities.

ARTICLE 8 DEFAULT AND REMEDIES

Section 8.01. *General.* Article VI of the Original Indenture shall not apply to, and have no force and effect with respect to, the Securities and any reference to Article VI or the Sections of Article VI of the Original Indenture shall be superseded by and references thereto shall be deemed to refer to this Article 8 and the Sections of this Article 8, respectively, of this First Supplemental Indenture.

Section 8.02. *Events Of Default.* An “**Event of Default**” shall occur if:

- (1) the Company fails to pay the principal of any Security when due and payable at its stated maturity, upon any required repurchase, upon declaration of acceleration or otherwise;
- (2) the Company fails to pay the interest on any Security when due and payable and such failure continues for a period of 30 days;
- (3) the Company fails to convert any Security in accordance with this Indenture upon exercise of a Holder’ s conversion right and such failure continues for 5 days;
- (4) the Company fails to provide timely notice pursuant to Section 4.02(a), Section 4.02(b), Section 5.01(d), Section 5.01(e) or Section 5.04(b), in each case when due and such failure continues for 30 days;
- (5) the Company fails to comply with its obligations set forth in Article 7;
- (6) the Company fails to perform any other agreement required of it in this Indenture or the Securities and such failure continues for 60 days after written notice is given in accordance with the immediately succeeding paragraph;
- (7) any indebtedness for money borrowed by the Company or any of its Subsidiaries in an aggregate outstanding principal amount in excess of \$25,000,000 is not paid at final maturity or upon acceleration, and such indebtedness is not discharged, or such acceleration is not cured or rescinded, within 30 days after written notice is given in accordance with the immediately succeeding paragraph;
- (8) the failure by the Company or any of its subsidiaries to pay final judgments entered by a court or courts of competent jurisdiction aggregating in excess of \$25,000,000, which judgments are not paid, discharged or stayed, for a period of 60 days or more;
- (9) the Company or any Significant Subsidiary, pursuant to or within the meaning of any Bankruptcy Law:
 - (A) commences a voluntary case or proceeding;
 - (B) consents to the entry of an order for relief against it in an involuntary case or proceeding;

(C) consents to the appointment of a Custodian of it or for all or substantially all of its property; or

(D) makes a general assignment for the benefit of its creditors; or

(10) a court of competent jurisdiction enters an order or decree under any Bankruptcy Law that:

(A) is for relief against the Company or any Significant Subsidiary in an involuntary case or proceeding;

(B) appoints a Custodian of the Company or any Significant Subsidiary or for all or substantially all of the property of the Company or any Significant Subsidiary; or

(C) orders the liquidation of the Company or any Significant Subsidiary;

and in each case the order or decree remains unstayed and in effect for 60 consecutive days.

A default under clause (6) or clause (7) above is not an Event of Default until the Trustee notifies the Company, or the Holders of at least 25% in aggregate principal amount of the Securities then outstanding notify the Company and the Trustee, in writing of the default, and the Company does not cure the default within the time periods specified in clauses (6) or (7), as applicable, after receipt of such notice. The notice given pursuant to this Section 8.02 must specify the default, demand that it be remedied and state that the notice is a "Notice of Default." When any default under this Section 8.02 is cured, it ceases.

The Trustee shall not be charged with knowledge of any Event of Default unless written notice thereof shall have been actually received by a Responsible Officer at the Corporate Trust Office of the Trustee by the Company, a Paying Agent, any Holder or any agent of any Holder.

Section 8.03. *Acceleration.* If an Event of Default (other than an Event of Default specified in clause (9) or (10) of Section 8.02) occurs and is continuing, the Trustee may, by notice to the Company, or the Holders of at least 25% in aggregate principal amount of the Securities then outstanding may, by notice to the Company and the Trustee, declare all unpaid principal to the date of acceleration on the Securities then outstanding (if not then due and payable) to be due and payable upon any such declaration, and the same shall become and be immediately due and payable. If an Event of Default specified in clause (9) or (10) of Section 8.02 occurs, all unpaid principal of the Securities then outstanding shall *ipso facto* become and be immediately due and payable without any declaration or other act on the part of the Trustee or any Holder. After any acceleration, but before a judgment or decree based on acceleration, the Holders of a majority in aggregate principal amount of the Securities may, except with respect to the nonpayment of principal or interest or with respect to the failure to pay and/or deliver the consideration due upon conversion, rescind and annul such acceleration by notice to the Trustee if (a) all existing Events of Default, other than the non-payment of accelerated principal, have been cured or waived; (b) to the extent the payment of such interest is lawful, interest (calculated at the rate per annum borne by the Securities plus one percent) on overdue installments of interest and overdue principal, which has become due otherwise than by such declaration of acceleration, has been paid; (c) the rescission would not conflict with any judgment or decree of a court of competent jurisdiction; and (d) all payments due to the Trustee and any predecessor Trustee under Section 7.07 of the Original Indenture have been made. No such rescission shall affect any subsequent default or impair any right consequent thereto.

Section 8.04. *Other Remedies.* If an Event of Default occurs and is continuing, the Trustee may, but shall not be obligated to, pursue any available remedy by proceeding at law or in equity to collect the payment of the principal of or interest on the Securities or to enforce the performance of any provision of the Securities or this Indenture. The Trustee may maintain a proceeding even if it does not possess any of the Securities or does not produce any of them in the proceeding. A delay or omission by the Trustee or any Holder in exercising any right or remedy accruing upon an Event of Default shall not impair the right or remedy or constitute a waiver of or acquiescence in the Event of Default. No remedy is exclusive of any other remedy. All available remedies are cumulative to the extent permitted by law.

Section 8.05. *Additional Interest.*

(a) Notwithstanding anything in this Indenture or in the Securities to the contrary, to the extent the Company elects, the sole remedy for an Event of Default during the first 180 days after the occurrence of an Event of Default relating to (i) the Company's failure to file with the Trustee pursuant to Section 314(a)(1) of the Trust Indenture Act any documents or reports that the Company is required to file with the SEC pursuant to Section 13 or 15(d) of the Exchange Act or (ii) the Company's failure to comply with its obligations as set forth in Section 6.03(a), shall after the occurrence of such an Event of Default consist exclusively of the right to receive Additional Interest on the Securities at a rate equal to:

(i) 0.25% per annum of the principal amount of the Securities outstanding for each day during which such Event of Default is continuing during the 90-day period beginning on, and including, the date on which such an Event of Default first occurs; and

(ii) 0.50% per annum of the principal amount of the Securities outstanding for each day during which such Event of Default is continuing during the 90-day period beginning on, and including, the 91st day following, and including, the date on which such an Event of Default first occurs.

(b) If the Company so elects, such Additional Interest shall be payable in the same manner and on the same dates as the stated interest payable on the Securities. On the 181st day after such Event of Default (if such Event of Default is not cured or waived prior to such 181st day), the Securities will be subject to acceleration as provided in Section 8.03. This Section 8.05 shall not affect the rights of Holders in the event of the occurrence of any other Event of Default. If the Company does not elect to pay Additional Interest following an Event of Default in accordance with this Section 8.05, or if it so elects but fails to pay the Additional Interest when due, the Securities shall be immediately subject to acceleration as provided in Section 8.03. To elect to pay Additional Interest as the sole remedy during the first 180 days after the occurrence of an Event of Default relating to the failure to comply with the reporting obligations in accordance with subsection (a) of this Section 8.05 and this subsection (b), the Company must notify all Holders of the Securities, the Trustee and the Paying Agent of such election prior to the beginning of such 180-day period. Upon the Company's failure to timely give such notice, the Securities shall be immediately subject to acceleration as provided in Section 8.03.

Section 8.06. *Waiver of Defaults and Events of Default.* Subject to Section 8.09 and Section 10.03, the Holders of a majority in aggregate principal amount of the Securities then outstanding by notice to the Trustee may waive an existing default or Event of Default and its consequence, except (a) a default or Event of Default in the payment of the principal of or interest on any Security, (b) a failure by the Company to convert any Securities in accordance with the provisions of the Securities and this Indenture or (c) any default or Event of Default in respect of any provision of this Indenture or the Securities that, under Section 11.03, cannot be modified or amended without the consent of the Holder of each Security affected. When a default or Event of Default is waived, it is cured and ceases.

Section 8.07. *Control by Majority.* The Holders of a majority in aggregate principal amount of the outstanding Securities will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee or exercising any trust or power conferred on the Trustee with respect to the Securities. However, the Trustee may refuse to follow any direction that conflicts with law or this Indenture, that the Trustee, in good faith by a Responsible Officer of the Trustee, determines may be unduly prejudicial to the rights of another Holder or the Trustee, or that may involve the Trustee in personal liability unless the Trustee is offered indemnity reasonably satisfactory to it; *provided, however*, that the Trustee may take any other action deemed proper by the Trustee that is not inconsistent with such direction.

Section 8.08. *Limitations on Suits.* A Holder may not pursue any remedy with respect to this Indenture or the Securities (except actions for the enforcement of payment of the principal or interest on any Security on or after the applicable due date or the right to convert the Securities in accordance with Article 5) or for the appointment of a receiver or a trustee, unless:

(1) the Holder has previously given the Trustee written notice of a continuing Event of Default;

(2) the Holders of at least 25% in aggregate principal amount of the Securities then outstanding have made a written request and have offered to the Trustee indemnity reasonably satisfactory to the Trustee to institute such proceeding as Trustee; and

(3) the Trustee has failed to institute such proceeding within 60 days after such notice, request and offer, and has not received from the Holders of a majority in aggregate principal amount of the Securities then outstanding a direction inconsistent with such request within 60 days after such notice, request and offer.

A Holder may not use this Indenture to prejudice the rights of another Holder or to obtain a preference or priority over such other Holder.

Section 8.09. *Rights of Holders to Receive Payment and to Convert.* Each Holder shall have the right to receive payment or delivery, as the case may be, of (a) the principal (including the Fundamental Change Repurchase Price) of, (b) accrued and unpaid interest, if any, on, and (c) the consideration due upon conversion of, its Securities, on or after the respective due dates expressed or provided for in this Indenture, or to institute suit for the enforcement of any such payment or delivery, as the case may be, and such right to receive payment or delivery, as the case may be, on or after such respective dates shall not be impaired or affected without the consent of such Holder.

Section 8.10. *Collection Suit By Trustee.* (a) If an Event of Default in the payment of principal or interest specified in clause (1) or (2) of Section 8.02 occurs and is continuing, then, upon demand of the Trustee, the Company will pay to the Trustee, for the benefit of the holders of the Securities, the whole amount that then shall have been become due and payable on all Securities for principal (and premium, if any) or interest, or both, as the case may be, with interest upon the overdue principal (and premium, if any) and (to the extent that payment of such interest is enforceable under applicable law) upon overdue installments of interest at the rate per annum expressed in the Securities; and, in addition thereto, such further amount as shall be sufficient to cover the costs and expenses of collection, and the amount payable to the Trustee under Section 7.07 of the Original Indenture.

(b) If the Company shall fail to pay such amounts forthwith upon such demand, the Trustee, in its own name and as trustee of an express trust, shall be entitled and empowered to institute any action or proceedings at law or in equity for the collection of the sums so due and unpaid, and may prosecute any such action or proceeding to judgment or final decree, and may enforce any such judgment or final decree against the Company or other obligor upon the Securities and collect the moneys adjudged or decreed to be payable in the manner provided by law out of the property of the Company or other obligor upon the Securities, wherever situated.

(c) In case of any receivership, insolvency, liquidation, bankruptcy, reorganization, readjustment, arrangement, composition or judicial proceedings affecting the Company, or its creditors or property, the Trustee shall have power to intervene in such proceedings and take any action therein that may be permitted by the court and shall (except as may be otherwise provided by law) be entitled to file such proofs of claim and other papers and documents as may be necessary or advisable in order to have the claims of the Trustee and of the holders of Securities allowed for the entire amount due and payable by the Company under the Indenture at the date of institution of such proceedings and for any additional amount that may become due and payable by the Company after such date, and to collect and receive any moneys or other property payable or deliverable on any such claim, and to distribute the same after the deduction of the amount payable to the Trustee under Section 7.07 of the Original Indenture; and any receiver, assignee or trustee in bankruptcy or reorganization is hereby authorized by each of the holders of Securities to make such payments to the Trustee, and, in the event that the Trustee shall consent to the making of such payments directly to such Holders, to pay to the Trustee any amount due it under Section 7.07 of the Original Indenture.

(d) All rights of action and of asserting claims under this Indenture or the Securities, may be enforced by the Trustee without the possession of any of such Securities, or the production thereof at any trial or other proceeding relative thereto, and any such suit or proceeding instituted by the Trustee shall be brought in its own name as trustee of an express trust, and any recovery of judgment shall, after provision for payment to the Trustee of any amounts due under Section 7.07 of the Original Indenture, be for the ratable benefit of the holders of the Securities. In case of an Event of Default hereunder, the Trustee may in its discretion proceed to protect and enforce the rights vested in it by this Indenture by such appropriate judicial proceedings as the Trustee shall deem

most effectual to protect and enforce any of such rights, either at law or in equity or in bankruptcy or otherwise, whether for the specific enforcement of any covenant or agreement contained in the Indenture or in aid of the exercise of any power granted in this Indenture, or to enforce any other legal or equitable right vested in the Trustee by this Indenture or by law. Nothing contained herein shall be deemed to authorize the Trustee to authorize or consent to or accept or adopt on behalf of any Holder any plan of reorganization, arrangement, adjustment or composition affecting the Securities or the rights of any holder thereof or to authorize the Trustee to vote in respect of the claim of any Holder in any such proceeding.

Section 8.11. *Priorities.* Any moneys collected by the Trustee pursuant to this Article 8 with respect to the Securities shall be applied in the following order, at the date or dates fixed by the Trustee and, in case of the distribution of such moneys on account of principal (or premium, if any) or interest, upon presentation of the Securities, and, in the case of Global Securities, reflection of the payment in the books and records of the Trustee and Depository, or, in the case of Certificated Securities, a notation thereon of the payment, if only partially paid, and upon surrender thereof if fully paid:

FIRST: To the payment of costs and expenses of collection and of all amounts payable to the Trustee under Section 7.07 of the Original Indenture;

SECOND: To the payment of the amounts then due and unpaid upon the Securities for principal (and premium, if any) and interest, in respect of which or for the benefit of which such money has been collected, ratably, without preference or priority of any kind, according to the amounts due and payable on such Securities for principal (and premium, if any) and interest, respectively.

THIRD: To the Company.

Section 8.12. *Undertaking For Costs.* In any suit for the enforcement of any right or remedy under this Indenture or in any suit against the Trustee for any action taken or omitted by it as Trustee, a court in its discretion may require the filing by any party litigant in the suit of an undertaking to pay the costs of the suit, and the court in its discretion may assess reasonable costs, including reasonable attorneys' fees and expenses, against any party litigant in the suit, having due regard to the merits and good faith of the claims or defenses made by the party litigant. This Section 8.12 does not apply to a suit made by the Trustee, a suit by a Holder pursuant to Section 8.08, or a suit by Holders of more than 10% in aggregate principal amount of the Securities then outstanding.

ARTICLE 9 TRUSTEE

Section 9.01. *General.* Article VII of the Original Indenture is hereby supplemented as reflected in Section 9.01 and 9.02 hereof and by adding the provisions of Sections 9.04, 9.05 and 9.06 of this Article 9 to the end of Article VII of the Original Indenture as Sections 7.15, 7.16 and 7.17 thereof, and notwithstanding anything to the contrary contained in this First Supplemental Indenture, the provisions of this Article 9 shall apply with respect to all Debt Securities issued under the Original Indenture.

Section 9.02. *Certain Duties and Responsibilities of Trustee.* Section 7.01 of the Original Indenture is hereby supplemented by adding the following at the end thereof:

(c) Whether or not therein expressly so provided, every provision of this Indenture relating to the conduct or affecting the liability or affording protection to the Trustee shall be subject to the provisions of this Section.

Section 9.03. *Concerning the Trustee.* Section 7.03 of the Original Indenture is hereby supplemented by adding the following at the end thereof:

(h) the Trustee shall not be liable for any action taken, suffered, or omitted to be taken by it in good faith and reasonably believed by it to be authorized or within the discretion or rights or powers conferred upon it by this Indenture;

(i) in no event shall the Trustee be responsible or liable for special, indirect, or consequential loss or damage of any kind whatsoever (including, but not limited to, loss of profit) irrespective of whether the Trustee has been advised of the likelihood of such loss or damage and regardless of the form of action;

(j) the Trustee shall not be deemed to have notice of any Default or Event of Default unless a Responsible Officer of the Trustee has actual knowledge thereof or unless written notice of any event which is in fact such a default is received by the Trustee at the Corporate Trust Office of the Trustee, and such notice references the Securities and this Indenture;

(k) the rights, privileges, protections, immunities and benefits given to the Trustee, including, without limitation, its right to be indemnified, are extended to, and shall be enforceable by, the Trustee in each of its capacities hereunder, and each agent, custodian and other Person employed to act hereunder; and

(l) the Trustee may request that the Company deliver a certificate setting forth the names of individuals and/or titles of officers authorized at such time to take specified actions pursuant to this Indenture.

Section 9.04. *Expenses.* (a) When the Trustee incurs expenses or renders services in connection with an Event of Default, the expenses (including the reasonable charges and expenses of its counsel) and the compensation for the services are intended to constitute expenses of administration under any applicable Federal or state bankruptcy, insolvency or other similar law.

(b) The provisions of this Section and Section 7.07 of the Original Indenture shall survive the termination of this Indenture.

Section 9.05. *Supplemental Indentures.* In executing, or accepting the additional trusts created by, any supplemental indenture permitted by this Indenture or the modification thereby of the trusts created by this Indenture, the Trustee shall receive, and shall be fully protected in relying upon, an Opinion of Counsel and an Officers' Certificate stating that the execution of such supplemental indenture is authorized or permitted by this Indenture. The Trustee may, but shall not be obligated to, enter into any such supplemental indenture which affects the Trustee's own rights, duties or immunities under this Indenture or otherwise.

Section 9.06. *Reliance.* The Trustee agrees to accept and act upon instructions or directions pursuant to this Indenture sent by unsecured e-mail, pdf, facsimile transmission or other similar unsecured electronic methods, provided, however, that the Trustee shall have received an incumbency certificate listing persons designated to give such instructions or directions and containing specimen signatures of such designated persons, which such incumbency certificate shall be amended and replaced whenever a person is to be added or deleted from the listing. If the Company elects to give the Trustee e-mail or facsimile instructions (or instructions by a similar electronic method) and the Trustee in its discretion elects to act upon such instructions, the Trustee's understanding of such instructions shall be deemed controlling. The Trustee shall not be liable for any losses, costs or expenses arising directly or indirectly from the Trustee's reliance upon and compliance with such instructions notwithstanding such instructions conflict or are inconsistent with a subsequent written instruction. The Company agrees to assume all risks arising out of the use of such electronic methods to submit instructions and directions to the Trustee, including without limitation the risk of the Trustee acting on unauthorized instructions, and the risk of interception and misuse by third parties.

ARTICLE 10 SATISFACTION AND DISCHARGE OF INDENTURE

Section 10.01. *General.* Article XI of the Original Indenture shall not apply to, and have no force and effect with respect to, the Securities and any reference to Article XI or the Sections of Article XI of the Original Indenture shall be superseded by and references thereto shall be deemed to refer to this Article 10 and the Sections of this Article 10, respectively, of this First Supplemental Indenture.

Section 10.02. *Satisfaction And Discharge Of Indenture.* This Indenture shall upon request of the Company contained in an Officers' Certificate cease to be of further effect, and the Trustee, at the expense of the Company, shall execute proper instruments acknowledging satisfaction and discharge of this Indenture, when (a) (i) all Securities theretofore authenticated and delivered (other than Securities that have been destroyed, lost or stolen and which have been replaced or paid as provided in Section 2.07 of the Original Indenture) have been delivered to the Trustee for cancellation; or (ii) the Company has deposited with the Trustee or delivered to Holders, as applicable, after the Securities have become due and payable, whether at the Maturity Date, any Fundamental Change Repurchase Date, upon conversion or otherwise, cash, shares of Common Stock or a combination thereof, as applicable, solely to satisfy the Company's Conversion Obligation, sufficient to pay all of the outstanding Securities and all other sums due and payable under this Indenture by the Company; and (b) the Company has delivered to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that all conditions precedent herein provided for relating to the satisfaction and discharge of this Indenture have been complied with.

Notwithstanding the satisfaction and discharge of this Indenture, the obligations of the Company to the Trustee under Section 9.04 of this First Supplemental Indenture and Section 7.07 of the Original Indenture shall survive and, if money shall have been deposited with the Trustee pursuant to paragraph (a)(ii) of this Section 10.02, the provisions of Section 10.03 and Section 10.05 shall survive until the Securities have been paid in full.

Section 10.03. *Application of Trust Money.* Subject to the provisions of Section 10.04, the Trustee or a Paying Agent shall hold in trust, for the benefit of the Holders, all money and shares of Common Stock deposited with it pursuant to Section 10.02 and shall apply the deposited money and shares of Common Stock in accordance with this Indenture and the Securities to the payment or delivery, as the case may be, of the principal of, and interest on, and the consideration due upon conversion of, the Securities; *provided* that such money and shares of Common Stock need not be segregated from other funds except to the extent required by law.

Section 10.04. *Repayment to Company.* The Trustee and each Paying Agent shall promptly pay to the Company upon request any excess money or shares of Common Stock (i) deposited with them pursuant to Section 10.02 and (ii) held by them at any time.

The Trustee and each Paying Agent shall pay to the Company upon request any money or shares of Common Stock held by them for the payment or delivery, as the case may be, of principal, interest or amounts due upon conversion that remains unclaimed for two years after a right to such money or shares of Common Stock has matured; *provided, however*, that the Trustee or such Paying Agent, before being required to make any such payment or delivery, may at the expense of the Company cause to be mailed to each Holder entitled to such money or shares of Common Stock notice that such money or shares of Common Stock remains unclaimed and that after a date specified therein, which shall be at least 30 days from the date of such mailing, any unclaimed balance of such money or shares of Common Stock then remaining will be repaid or delivered to the Company. After payment or delivery to the Company, Holders entitled to money or share of Common Stock must look to the Company for payment as general creditors unless an applicable abandoned property law designates another Person. In the absence of a written request from the Company to return unclaimed funds or shares to the Company, the Trustee shall from time to time deliver all unclaimed funds or shares to or as directed by applicable escheat authorities, as determined by the Trustee in its sole discretion, in accordance with the customary practices and procedures of the Trustee. Any unclaimed funds or shares held by the Trustee pursuant to this Section 10.04 shall be held uninvested and without any liability for interest.

Section 10.05. *Reinstatement.* If the Trustee or any Paying Agent is unable to apply any money or shares of Common Stock in accordance with Section 10.03 by reason of any legal proceeding or by reason of any order or judgment of any court or governmental authority enjoining, restraining or otherwise prohibiting such application, then the Company's obligations under this Indenture and the Securities shall be revived and reinstated as though no deposit had occurred pursuant to Section 10.02 until such time as the Trustee or such Paying Agent is permitted to apply all such money or shares of Common Stock in accordance with Section 10.03; *provided, however*, that if the Company has made any payment or delivery, as the case may be, of the principal of, interest on, or amounts due upon conversion of, any Securities because of the reinstatement of its obligations, the Company shall be subrogated to the rights of the Holders of such Securities to receive any such payment or delivery from the money or shares of Common Stock held by the Trustee or such Paying Agent.

ARTICLE 11
AMENDMENTS, SUPPLEMENTS AND WAIVERS

Section 11.01. *General.* Sections 9.01, 9.02, 9.03 and 9.04 of Article IX of the Original Indenture shall not apply to, and have no force and effect with respect to, the Securities and any reference to Sections 9.01, 9.02, 9.03 and 9.04 of Article IX of the Original Indenture shall be superseded by and references thereto shall be deemed to refer to Section 11.02, 11.03, 11.04 and 11.05 of Article 11, respectively, of this First Supplemental Indenture.

Section 11.02. *Without Consent of Holders.* The Company and the Trustee may amend or supplement this Indenture or the Securities without notice to, or the consent of, any Holder:

- (a) to cure any ambiguity, defect or inconsistency that does not adversely affect Holders;
- (b) to provide for the assumption by a successor entity of the Company' s obligations under this Indenture;
- (c) to add guarantees with respect to the Securities;
- (d) to secure the Company' s obligations with respect to the Securities;
- (e) to add to the covenants, restrictions or conditions of the Company for the benefit of the Holders or to surrender any right or power conferred upon the Company;
- (f) to make any other change that does not adversely affect the rights of any Holder;
- (g) to add provisions for the issuance of Additional Securities;
- (h) to provide for the appointment of a successor Trustee; provided that the successor Trustee shall qualify and be eligible under Section 7.10 of the Original Indenture;
- (i) to comply with any requirement of the SEC in connection with the qualification of this Indenture under the Trust Indenture Act; and
- (j) to conform the provisions of this Indenture to the "Description of Notes" section in the Preliminary Prospectus dated November 2, 2011 relating to the offering and sale of the Securities, as supplemented by the related Pricing Term Sheet dated November 2, 2011.

Upon the request of the Company accompanied by a resolution of its Board of Directors authorizing the execution of any such amended or supplemental indenture, and upon receipt by the Trustee of the documents described in Section 11.03, the Trustee shall join with the Company in the execution of any amended or supplemental indenture authorized or permitted by the terms of this Indenture and to make any further appropriate agreements and stipulations that may be therein contained, but the Trustee shall not be obligated to enter into such amended or supplemental indenture that affects its own rights, duties or immunities under this Indenture or otherwise.

Section 11.03. *With Consent of Holders.* The Company and the Trustee may amend or supplement this Indenture or the Securities with the written consent of the Holders of at least a majority in aggregate principal amount of the Securities then outstanding. The Holders of at least a majority in aggregate principal amount of the Securities then outstanding may waive compliance in a particular instance by the Company with any provision of this Indenture or the Securities. However, notwithstanding the foregoing but subject to Section 11.04, without the written consent of each Holder affected, an amendment, supplement or waiver, including a waiver pursuant to Section 8.06, may not:

- (a) change the stated maturity of the principal of, or interest on, any Security;
- (b) reduce the principal amount of or interest on any Security;

- (c) reduce the amount of principal payable upon acceleration of the maturity of any Security;
- (d) change the place or currency of payment of principal of, or interest on, any Security;
- (e) impair the right to institute suit for the enforcement of any payment on, or with respect to, any Security;
- (f) modify the provisions with respect to the Company' s obligation to repurchase Securities pursuant to Article 4 upon a Fundamental Change in a manner adverse to Holders;
- (g) change the ranking of the Securities;
- (h) adversely affect the right of Holders to convert Securities other than as provided in or under Article 5 of this Indenture;
- (i) reduce the percentage in principal amount of outstanding Securities required for modification or amendment of this Indenture;
- (j) reduce the percentage in principal amount of outstanding Securities necessary for waiver of compliance with Sections 8.03, 8.06 and 8.07 of this Indenture; or
- (k) modify provisions of this Section 11.03 or Section 8.06 in a manner adverse to the Holders.

It shall not be necessary for the consent of the Holders under this Section 11.03 to approve the particular form of any proposed amendment, supplement or waiver, but it shall be sufficient if such consent approves the substance thereof.

Upon the request of the Company accompanied by a resolution of its Board of Directors authorizing the execution of any such amended or supplemental indenture, and upon the filing with the Trustee of evidence satisfactory to the Trustee of the consent of the Holders as aforesaid, and upon receipt by the Trustee of the documents described in Sections 9.05 and 13.07 of the Original Indenture, the Trustee shall join with the Company in the execution of such amended or supplemental indenture unless such amended or supplemental indenture directly affects the Trustee' s own rights, duties or immunities under this Indenture or otherwise, in which case the Trustee may in its discretion, but shall not be obligated to, enter into such amended or supplemental indenture.

After an amendment, supplement or waiver under this Section 11.03 becomes effective, the Company shall mail to the Holders affected thereby a notice briefly describing the amendment, supplement or waiver. Any failure of the Company to mail such notice, or any defect therein, shall not, however, in any way impair or affect the validity of any such amendment, supplement or waiver.

Until an amendment, supplement or waiver becomes effective, a consent to it by a Holder is a continuing consent by the Holder and every subsequent Holder of a Security or portion of a Security that evidences the same debt as the consenting Holder' s Security, even if notation of the consent is not made on any Security. However, any such Holder or subsequent Holder may revoke the consent as to its Security or portion of a Security if the Trustee receives the notice of revocation before the date the amendment, supplement or waiver becomes effective.

After an amendment, supplement or waiver becomes effective, it shall bind every Holder, unless it makes a change described in any of clauses (a) through (k) of this Section 11.03. In that case the amendment, supplement or waiver shall bind each Holder of a Security who has consented to it and every subsequent Holder of a Security or portion of a Security that evidences the same debt as the consenting Holder' s Security.

Section 11.04. *Effect of Supplemental Indentures.* Upon the execution of any supplemental indenture pursuant to the provisions of this Article 11, including, for the avoidance of doubt, of Section 5.07(b) or Article 7 of this First Supplemental Indenture, this Indenture shall be and be deemed to be modified and amended in accordance therewith and the respective rights, limitations of rights, obligations, duties and immunities under this Indenture of the Trustee, the Company and the Holders of the Securities shall thereafter be determined, exercised and enforced under the Indenture subject in all respects to such modifications and amendments, and all the terms and conditions of any such supplemental indenture shall be and be deemed to be part of the terms and conditions of this Indenture for any and all purposes.

Section 11.05. *Securities Affected by Supplemental Indentures.* The Securities authenticated and delivered after the execution of a supplemental indenture pursuant to the provisions of this Article 11, including, for the avoidance of doubt, of Section 5.07(b) or Article 7 of this First Supplemental Indenture, may bear a notation in form approved by the Company, provided such form meets the requirements of any exchange upon which Securities may be listed, as to any matter provided for in such supplemental indenture. If the Company shall so determine, new Securities so modified as to conform, in the opinion of the Board of Directors of the Company, to any modification of this Indenture contained in any such supplemental indenture may be prepared by the Company, authenticated by the Trustee and delivered in exchange for the Securities then Outstanding.

ARTICLE 12 MISCELLANEOUS

Section 12.01. *General.* Section 13.12 of Article XIII of the Original Indenture shall not apply to, and have no force and effect with respect to, the Securities.

Section 12.02. *Rules By Trustee, Paying Agent, Registrar And Conversion Agent.* The Trustee may make reasonable rules (not inconsistent with the terms of this Indenture) for action by or at a meeting of Holders. Any Registrar, Paying Agent or Conversion Agent may make reasonable rules for its functions.

Section 12.03. *Governing Law.* THIS INDENTURE AND THE SECURITIES, AND ANY CLAIM, CONTROVERSY OR DISPUTE ARISING UNDER OR RELATED TO THIS INDENTURE OR THE SECURITIES, SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK.

Section 12.04. *No Adverse Interpretation of Other Agreements.* This Indenture may not be used to interpret another indenture, loan or debt agreement of the Company or a Subsidiary of the Company. Any such indenture, loan or debt agreement may not be used to interpret this Indenture.

Section 12.05. *Successors.* All the covenants, stipulations, promises and agreements in this First Supplemental Indenture contained by or on behalf of the Company shall bind its successors and assigns, whether so expressed or not. Any act or proceeding by any provision of this First Supplemental Indenture authorized or required to be done or performed by any board, committee or officer of the Company shall and may be done and performed with like force and effect by the corresponding board, committee or officer of any corporation that shall at the time be the lawful successor of the Company.

Section 12.06. *Multiple Counterparts.* This First Supplemental Indenture may be executed in any number of counterparts, each of which shall be an original, but such counterparts shall together constitute one and the same instrument.

Section 12.07. *Separability.* In case any one or more of the provisions contained in this Indenture or in the Securities shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions of this Indenture or of such Securities, but this Indenture and such Securities shall be construed as if such invalid or illegal or unenforceable provision had never been contained herein or therein.

Section 12.08. *Table of Contents, Headings, Etc.* The table of contents, cross-reference sheet and headings of the Articles and Sections of this Indenture have been inserted for convenience of reference only, are not to be considered a part hereof, and shall in no way modify or restrict any of the terms or provisions hereof.

Section 12.09. *Force Majeure*. Article XIII of the Original Indenture is hereby supplemented by adding the provisions of the following paragraph to the end of Article XIII of the Original Indenture as Section 13.13 thereof, and notwithstanding anything to the contrary contained in this First Supplemental Indenture, such provisions of the following paragraph shall apply with respect to all Debt Securities issued under the Original Indenture, including, for the avoidance of doubt, the Securities:

“Section 13.13. *Force Majeure*: In no event shall the Trustee be responsible or liable for any failure or delay in the performance of its obligations hereunder arising out of or caused by, directly or indirectly, forces beyond its control, including, without limitation, strikes, work stoppages, accidents, acts of war or terrorism, civil or military disturbances, nuclear or natural catastrophes or acts of God, and interruptions, loss or malfunctions of utilities, communications or computer (software and hardware) services; *provided* that the Trustee shall use reasonable efforts consistent with accepted practices in the banking industry to resume performance as soon as practicable under the circumstances.”

Section 12.10. *Waiver of Jury Trial*. (a) Article XIII of the Original Indenture is hereby supplemented by adding the provisions of the following paragraph to the end of Article XIII of the Original Indenture as Section 13.14 thereof, and notwithstanding anything to the contrary contained in this First Supplemental Indenture, such provisions of the following paragraph shall apply with respect to all Debt Securities issued under the Original Indenture, including, for the avoidance of doubt, the Securities:

“Section 13.14. *Waiver of Jury Trial*. EACH OF THE COMPANY AND THE TRUSTEE HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATING TO THIS INDENTURE, THE SECURITIES OR THE TRANSACTIONS CONTEMPLATED HEREBY.”

Section 12.11. *Calculations In Respect of Securities*. The Company shall be responsible for making all calculations called for under the Securities. All calculations made by the Company shall be made in good faith and be final and binding on the Holders of the Securities absent manifest error. The Company shall provide a schedule of calculations to the Trustee and the Conversion Agent, and the Trustee and the Conversion Agent shall be entitled to conclusively rely upon the accuracy of the calculations by the Company without independent verification. The Trustee shall forward calculations made by the Company to any Holder of Securities upon request.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands as of the date and year first above written.

HUMAN GENOME SCIENCES, INC.

By: /s/ David P. Southwell

Name: David P. Southwell

Title: Executive Vice President and Chief Financial Officer

THE BANK OF NEW YORK MELLON TRUST
COMPANY, N.A., AS TRUSTEE

By: /s/ Natalie Lawrence

Name: Natalie Lawrence

Title: Associate

EXHIBIT A

[FORM OF FACE OF SECURITY]

[UNLESS THIS CERTIFICATE IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY TO THE COMPANY OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE OR PAYMENT, AND ANY CERTIFICATE ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY (AND ANY PAYMENT HEREON IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL SINCE THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN. THIS SECURITY IS A GLOBAL SECURITY WITHIN THE MEANING OF THE INDENTURE HEREINAFTER REFERRED TO AND IS REGISTERED IN THE NAME OF A DEPOSITARY OR A NOMINEE THEREOF. THIS SECURITY IS EXCHANGEABLE FOR SECURITIES REGISTERED IN THE NAME OF A PERSON OTHER THAN THE DEPOSITARY OR ITS NOMINEE ONLY IN THE LIMITED CIRCUMSTANCES DESCRIBED IN THE INDENTURE AND, UNLESS AND UNTIL IT IS EXCHANGED IN WHOLE OR IN PART FOR SECURITIES IN DEFINITIVE FORM, THIS SECURITY MAY NOT BE TRANSFERRED EXCEPT AS A WHOLE BY THE DEPOSITARY TO A NOMINEE OF THE DEPOSITARY OR BY A NOMINEE OF THE DEPOSITARY TO THE DEPOSITARY OR ANOTHER NOMINEE OF THE DEPOSITARY OR BY THE DEPOSITARY OR ANY SUCH NOMINEE TO A SUCCESSOR DEPOSITARY OR A NOMINEE OF SUCH SUCCESSOR DEPOSITARY.]¹

¹ This bracketed text should be included only if the Security is a Global Security.

HUMAN GENOME SCIENCES, INC.

3.00% CONVERTIBLE SENIOR NOTES DUE 2018

No. [__]

\$ _____

CUSIP No.: [_____]2

ISIN No.: [_____]3

Human Genome Sciences, Inc., a Delaware corporation (the “**Company**”, which term shall include any successor entity under the Indenture referred to on the reverse hereof), promises to pay to [Cede & Co.]4 [_____] or registered assigns, the principal sum [of _____ DOLLARS (\$_____)] [(or such lesser principal amount as shall be reflected in the books and records of the Trustee and Depository)]4 on November 15, 2018, and interest thereon as set forth below.

This Security shall bear interest at the rate of 3.00% per year from November 7, 2011, or from the most recent date to which interest has been paid or provided for to, but excluding, the next scheduled Interest Payment Date until November 15, 2018. Interest is payable semi-annually in arrears on each May 15 and November 15, commencing on May 15, 2012, to Holders of record at the close of business on the preceding May 1 and November 1 (whether or not such day is a Business Day), respectively. Additional Interest will be payable as set forth in Section 8.05 of the First Supplemental Indenture, and any reference to interest on, or in respect of, any Security therein shall be deemed to include Additional Interest if, in such context, Additional Interest is, was or would be payable pursuant to Section 8.05 of the First Supplemental Indenture and any express mention of the payment of Additional Interest in any provision therein shall not be construed as excluding Additional Interest in those provisions thereof where such express mention is not made. Interest will be computed on the basis of a 360-day year of twelve 30-day months.

Any Defaulted Amounts shall accrue interest at a rate per year equal to the rate borne by the Securities plus one percent subject to the enforceability thereof under applicable law, from, and including, the relevant payment date to, but excluding, the date on which such Defaulted Amounts shall have been paid by the Company, at its election, in accordance with Section 1.02(f) of the First Supplemental Indenture.

The Company shall pay the principal of and interest on this Security so long as such Security is a Global Security, in immediately available funds to the Depository or its nominee, as the case may be, as the registered Holder of such Security. As provided in and subject to the provisions of the Indenture, the Company shall pay the principal of any Securities (other than Securities that are Global Securities) at the office or agency designated by the Company for that purpose. The Company has initially designated the Trustee as Paying Agent, Primary Registrar, Securities Custodian and Conversion Agent and each of the Corporate Trust Office of the Trustee and the office or agency of the Trustee in Pittsburgh, Pennsylvania, as an office or agency of the Company for each of the aforesaid purposes.

Reference is made to the further provisions of this Security set forth on the reverse hereof, including, without limitation, provisions giving the Holder of this Security the right to convert this Security into cash, shares of Common Stock or a combination of cash and shares of Common Stock, as applicable, on the terms and subject to the limitations set forth in the Indenture. Such further provisions shall for all purposes have the same effect as though fully set forth at this place.

2 CUSIP: 44903AN8

3 ISIN: US444903AN84

4 This bracketed text should be included only if the Security is a Global Security.

This Security shall not be valid or become obligatory for any purpose until the certificate of authentication hereon shall have been manually signed by the Trustee or a duly authorized authenticating agent under the Indenture.

[SIGNATURE PAGE FOLLOWS]

A-3

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed.

HUMAN GENOME SCIENCES, INC.

By: _____
Name:
Title:

Attest:

By: _____
Name:
Title:

Dated: [____], 20[__]

TRUSTEE' S CERTIFICATE OF AUTHENTICATION

This is one of the Securities referred to in the within-mentioned Indenture.

THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., AS TRUSTEE

By: _____
Authorized Signatory

[FORM OF REVERSE OF SECURITY]

HUMAN GENOME SCIENCES, INC.
3.00% CONVERTIBLE SENIOR NOTES DUE 2018

This Security is one of a duly authorized issuance of Securities of the Company, designated as its 3.00% Convertible Senior Notes due 2018 (the “**Securities**”), initially limited in aggregate principal amount of \$494,500,000, all issued or to be issued under and pursuant to an Original Indenture dated as of November 7, 2011 (the “**Original Indenture**”), between the Company and The Bank of New York Mellon Trust Company, N.A. (the “**Trustee**”), as supplemented by the First Supplemental Indenture dated as of November 7, 2011, between the Company and the Trustee (the “**First Supplemental Indenture**”; the Original Indenture as supplemented by the First Supplemental Indenture, the “**Indenture**”), to which Indenture and all indentures supplemental thereto reference is hereby made for a description of the rights, limitations of rights, obligations, duties and immunities thereunder of the Trustee, the Company and the Holders of the Securities. Additional Securities may be issued in an unlimited aggregate principal amount, subject to certain conditions specified in the Indenture.

Subject to the terms and conditions of the Indenture, the Company will make all payments and deliveries in respect of the Fundamental Change Repurchase Price and the principal amount on the Maturity Date, as the case may be, to the Holder who surrenders a Security to a Paying Agent to collect such payments in respect of the Security. The Company will pay cash amounts in money of the United States that at the time of payment is legal tender for payment of public and private debts.

The Securities are issuable in registered form without coupons in denominations of \$1,000 principal amount and integral multiples of \$1,000 in excess thereof. At the office or agency of the Company referred to on the face hereof, and in the manner and subject to the limitations provided in the Indenture, Securities may be exchanged for a like aggregate principal amount of Securities of other authorized denominations, without payment of any service charge but, if required by the Company or Trustee, with payment of a sum sufficient to cover any transfer or similar tax that may be imposed in connection therewith as a result of the name of the Holder of the new Securities issued upon such exchange of Securities being different from the name of the Holder of the old Securities surrendered for such exchange.

The Securities are not subject to redemption through the operation of any sinking fund or otherwise.

Upon the occurrence of a Fundamental Change and subject to the terms and conditions of the Indenture, the Holder has the right, at such Holder’s option, to require the Company to repurchase for cash all of such Holder’s Securities or any portion thereof (in principal amounts of \$1,000 or integral multiples of \$1,000 in excess thereof) on the Fundamental Change Repurchase Date at a price equal to the Fundamental Change Repurchase Price.

As provided in and subject to the provisions of the Indenture, the Holder hereof has the right, at its option, prior to the close of business on the Business Day immediately preceding August 15, 2018 only upon the occurrence of certain conditions specified in the Indenture, and on or after August 15, 2018 until the close of business on the Business Day immediately preceding the Maturity Date regardless of the occurrence of such conditions, to convert any of its Securities or portion thereof that is \$1,000 or an integral multiple thereof, into cash, shares of Common Stock or a combination of cash and shares of Common Stock, as applicable, at the Conversion Rate specified in the Indenture, as adjusted from time to time as provided in the Indenture.

The Indenture contains provisions permitting the Company and the Trustee in certain circumstances, without the consent of the Holders of the Securities, and in certain other circumstances, with the consent of the Holders of not less than a majority in aggregate principal amount of the Securities at the time outstanding, evidenced as in the Indenture provided, to execute supplemental indentures modifying the terms of the Indenture and the Securities as described therein. It is also provided in the Indenture that, subject to certain exceptions, the Holders of a majority in aggregate principal amount of the Securities at the time outstanding may on behalf of the Holders of all of the Securities waive any past Default or Event of Default under the Indenture and its consequences.

In case an Event of Default, as defined in the Indenture, shall have occurred and be continuing, the principal of all Securities may be declared, by either the Trustee or Holders of at least 25% in aggregate principal amount of Securities then outstanding, and upon said declaration shall become, due and payable, in the manner, with the effect and subject to the conditions and certain exceptions set forth in the Indenture. In case an Event of Default occurs as a result of certain events of bankruptcy, insolvency or reorganization of the Company, the principal of all Securities then outstanding shall ipso facto become and be immediately due and payable without any declaration or other act on the part of the Trustee or any Holder,

When a successor assumes all the obligations of its predecessor under the Securities and the Indenture in accordance with the terms and conditions of the Indenture, the predecessor (except in certain circumstances specified in the Indenture) shall be released from those obligations.

All terms used in this Security but not specifically defined herein are defined in the Indenture and are used herein as so defined.

It is intended that the Securities will be treated as indebtedness and not as equity for federal income tax purposes. The provisions of the Indenture shall be interpreted to further this intention.

In the case of any conflict between the provisions of this Security and the Indenture, the provisions of the Indenture shall control.

THE INDENTURE AND THIS SECURITY, AND ANY CLAIM, CONTROVERSY OR DISPUTE ARISING UNDER OR RELATED TO THE INDENTURE OR THIS SECURITY, SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK.

The Company will furnish to any Holder, upon written request and without charge, a copy of the Indenture. Requests may be made to: Human Genome Sciences, Inc., 14200 Shady Grove Road, Rockville, Maryland 20850-7464, Attention: Investor Relations.

ABBREVIATIONS AND DEFINITIONS

Customary abbreviations may be used in the name of the Holder or an assignee, such as: TEN COM (= tenants in common)

TEN ENT (= tenants by the entirety)

JT TEN (= joint tenants with right of survivorship and not as tenants in common) CUST (= Custodian)

UGMA (= Uniform Gifts to Minors Act).

Additional abbreviations may also be used though not in the above list.

ASSIGNMENT FORM

To assign this Security, fill in the form below:

I or we assign and transfer this Security to:

(Insert assignee' s social security or tax I.D. number)

(Print or type assignee' s name, address and zip code)

and irrevocably appoint

agent to transfer this Security on the books of the Company. The agent may substitute another to act for him or her.

Date: _____

Your Signature: _____
(Sign exactly as your name appears on the other side of this Security)

* Signature guaranteed by:

By: _____

The signature must be guaranteed by an institution which is a member of one of the following recognized signature guaranty programs: (i) the Securities Transfer Agent Medallion Program (STAMP); (ii) the New York Stock Exchange Medallion Program (MSP); (iii) the Stock Exchange Medallion Program (SEMP); or (iv) such other guaranty program acceptable to the Trustee.

CONVERSION NOTICE

To convert this Security into cash, shares of Common Stock or a combination of cash and shares of Common Stock, as applicable, check the box:

To convert only part of this Security, state the principal amount to be converted (which must be \$1,000 or an integral multiple of \$1,000): \$_____

If you want the stock certificate made out in another Person's name, fill in the form below:

(Insert assignee's social security or tax I.D. number)

(Print or type assignee's name, address and zip code)

Date: _____

Your Signature: _____
(Sign exactly as your name appears on the other side of this Security)

* Signature guaranteed by:

By: _____

* The signature must be guaranteed by an institution which is a member of one of the following recognized signature guaranty programs: (i) the Securities Transfer Agent Medallion Program (STAMP); (ii) the New York Stock Exchange Medallion Program (MSP); (iii) the Stock Exchange Medallion Program (SEMP); or (iv) such other guaranty program acceptable to the Trustee.

REPURCHASE EXERCISE NOTICE UPON A FUNDAMENTAL CHANGE

To: Human Genome Sciences, Inc.

The undersigned registered owner of this Security hereby irrevocably acknowledges receipt of a notice from Human Genome Sciences, Inc. (the “**Company**”) as to the occurrence of a Fundamental Change with respect to the Company and requests and instructs the Company to repurchase the entire principal amount of this Security, or the portion thereof (which is \$1,000 or an integral multiple thereof) below designated, in accordance with the terms of the Indenture referred to in this Security at the Fundamental Change Repurchase Price, to the registered Holder hereof.

Dated: _____

Dated: _____

Dated: _____

Signature(s)

Signature(s) must be guaranteed by a qualified guarantor institution with membership in an approved signature guarantee program pursuant to Rule 17Ad-15 under the Securities Exchange Act of 1934.

Signature Guaranty

Principal amount to be repurchased (in an integral multiple of \$1,000, if less than all):

NOTICE: The signature to the foregoing Election must correspond to the name as written upon the face of the Security in every particular, without alteration or any change whatsoever.

DLA Piper LLP (US)

The Marbury Building
6225 Smith Avenue
Baltimore, Maryland 21209-3600
www.dlapiper.com

T 410.580.3000

F 410.580.3001

November 7, 2011

Human Genome Sciences, Inc.
14200 Shady Grove Road
Rockville, Maryland 20850-7464

Re: Human Genome Sciences, Inc. 3.00% Convertible Senior Notes due 2018

Ladies and Gentlemen:

We have acted as counsel for Human Genome Sciences, Inc., a Delaware corporation (the "Company"), in connection with that certain Underwriting Agreement dated as of November 2, 2011 (the "Underwriting Agreement") by and among the Company and Citigroup Global Markets Inc. (the "Underwriter"), relating to the issuance and sale by the Company to the Underwriter of (i) an aggregate of \$430,000,000 principal amount of its 3.00% Convertible Senior Notes due 2018 (the "Firm Securities"), which are convertible into shares of the Company's common stock, par value \$0.01 per share ("Common Stock"), and (ii) an aggregate of \$64,500,000 in additional aggregate principal amount of 3.00% Convertible Senior Notes due 2018 (the "Optional Securities"). The Firm Securities and the Optional Securities are herein collectively called the "Securities." The Securities are being issued under the Indenture dated as of November 7, 2011 (the "Base Indenture") between the Company and The Bank of New York Mellon Trust Company, N.A., as Trustee (the "Trustee"), as supplemented by that certain First Supplemental Indenture, dated as of November 7, 2011, between the Company and the Trustee (the "Supplemental Indenture," and together with the Base Indenture, the "Indenture").

This opinion is being furnished in accordance with the requirements of Item 16 of Form S-3 and Item 601(b)(5)(i) of Regulation S-K.

In our capacity as the Company's counsel, we have reviewed the following documents (collectively, the "Documents"):

(a) The Amended Certificate of Incorporation (Fifth) of the Company (the "Certificate of Incorporation"), certified as of a recent date by the Secretary of State of the State of Delaware;

(b) The Amended and Restated By-laws of the Company (the "By-laws"), certified by the Secretary of the Company to be in effect on the date hereof;

(c) The Company's Registration Statement on Form S-3 (Registration No. 333-162731), and all amendments through the date hereof (collectively, the "Registration Statement"), prepared, filed with the Securities and Exchange Commission (the "Commission") and effective on October 29, 2009 (the "Effective Date"), under the Securities Act of 1933, as amended (the "Securities Act"), and the rules and regulations thereunder, which contains a form of prospectus to be used in connection with the public offering and sale of the Securities (the "Base Prospectus");

(d) The Company' s post-effective amendment to the Registration Statement ("Post-Effective Amendment No. 1"), prepared, filed with the Commission under the Securities Act and the rules and regulations thereunder;

(e) The preliminary prospectus supplement dated November 2, 2011, filed by the Company with the Commission on November 2, 2011 pursuant to Rule 424(b)(5) under the Securities Act;

(f) The final prospectus supplement dated November 2, 2011, filed by the Company with the Commission on November 4, 2011 pursuant to Rule 424(b)(5) under the Securities Act;

(g) The Underwriting Agreement;

(h) The Indenture;

(i) The global note representing the Securities;

(j) Resolutions adopted by the Company' s Board of Directors on October 1, 2009, and October 5, 2011, relating to the filing of the Registration Statement and Post-Effective Amendment No. 1, the Underwriting Agreement and the authorization and issuance of the Securities, and the resolutions of the Finance Committee of the Board of Directors of the Company adopted on November 2, 2011, relating to the Underwriting Agreement and the authorization, offering and issuance of the Securities (in each case, in the form attached to the Officer' s Certificate (as defined below));

(k) An officer' s certificate of the Company, dated as of the date hereof, as to certain factual matters (the "Certificate"); and

(l) Such other documents as we have considered necessary to the rendering of the opinion expressed below.

In examining the Documents, and in rendering the opinion set forth below, we have assumed, without independent investigation, the following: (a) each of the parties to the Documents (other than the Company) has duly and validly authorized, executed and delivered each of the Documents and each instrument, agreement and other document executed in connection with the Documents to which such party (other than the Company) is a signatory and each such party's (other than the Company's) obligations set forth in the Documents, are its legal, valid and binding obligations, enforceable in accordance with their respective terms; (b) each person executing any such instrument, agreement or other document on behalf of any such party (other than the Company) is duly authorized to do so; (c) each natural person executing any such instrument, agreement or other document is legally competent to do so; (d) the Documents accurately describe and contain the mutual understandings of the parties, there are no oral or written modifications of or amendments or supplements to the Documents and there has been no waiver of any of the provisions of the Documents by actions or conduct of the parties or otherwise; and (e) all documents submitted to us as originals are authentic, all documents submitted to us as certified or photostatic copies or telecopies or portable document file (".PDF") copies conform to the original documents (and the authenticity of the originals of such copies), all signatures on all documents submitted to us for examination (and including signatures on photocopies, telecopies and .PDF copies) are genuine, and all public records reviewed are accurate and complete. As to all factual matters relevant to the opinion set forth below, we have relied upon the representations and warranties made in the Underwriting Agreement, Indenture and on the Certificate as to the factual matters set forth therein, which we assume to be accurate and complete, and on the oral or written statements and representations of officers of the Company, of public officials and our review of the Documents.

Based upon the foregoing, and subject to the assumptions, limitations and qualifications stated herein, it is our opinion that:

1. The Securities have been duly authorized and, when the Securities have been executed and authenticated as specified in the Indenture and delivered to and paid for by the Underwriter pursuant to the Underwriting Agreement, the Securities will constitute valid and binding obligations of the Company enforceable against the Company in accordance with their terms.

2. Upon conversion of the Securities in accordance with the terms of the Securities and the Indenture, the shares of Common Stock issuable upon conversion of the Securities will be validly issued, fully-paid and non-assessable.

The opinion expressed above is subject to the following assumptions, exceptions, qualifications and limitations:

The foregoing opinion is rendered as of the date hereof. We assume no obligation to update such opinion to reflect

- (i) any facts or circumstances that may hereafter come to our attention or changes in the law which may hereafter occur.

We do not express any opinion herein concerning any law other than the Delaware General Corporation Law and the New York Business Corporations Law (including the statutory provisions, all applicable provisions of the Delaware Constitution and the New York Constitution and the reported judicial decisions interpreting the foregoing). The opinion expressed herein is subject to the effect of judicial decisions which may permit the introduction of parol evidence to modify the terms or the interpretation of agreements.

- (ii)

(iii) We express no opinion as to compliance with the securities (or “blue sky”) laws of any jurisdiction.

The opinion stated herein relating to the validity and binding nature of obligations of the Company is subject to (a) the effect of any applicable bankruptcy, insolvency (including, without limitation, all laws relating to fraudulent transfers), reorganization, moratorium or similar laws affecting creditors’ rights generally and (b) the effect of general principles of equity (regardless of whether considered in a proceeding in equity or at law).

(v) This opinion is limited to the matters set forth herein, and no other opinion should be inferred beyond the matters expressly stated.

We consent to the filing of this opinion with the Commission as an exhibit to a Current Report on Form 8-K and to the reference to our firm under the heading “Legal Matters” in the Registration Statement. In giving this consent, we do not thereby admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission promulgated thereunder.

This opinion is given to you solely for use in connection with the issuance and/or sale of the Securities and is not to be relied on for any other purpose. Our opinion is expressly limited to the matters set forth above, and we render no opinion, whether by implication or otherwise, as to any other matters relating to the Company or the Securities.

Very truly yours,

DLA Piper LLP (US)

/s/ DLA Piper LLP (US)

Information Relating to Part II, Item 14 – Other Expenses of Issuance and Distribution

The expenses in connection with the offering of \$494.5 million aggregate principal amount of 3.00% Convertible Senior Notes due 2018 by Human Genome Science, Inc., registered pursuant to a Registration Statement on Form S-3 (Registration No. 333-162731) filed on October 29, 2009, are set forth in the following table. All amounts are estimated except the Securities and Exchange Commission registration fee.

Securities and Exchange Commission Registration Fee	\$56,670
Accounting Fees and Expenses	174,000
Legal Fees and Expenses	250,000
Printing Expenses	25,000
Fees and Expenses of Trustee	6,000
Miscellaneous Expenses	10,000
Total	<u>\$521,670</u>