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

Form 10-Q

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended June 30, 2015

Or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from _____ to _____.

Commission file number: 000-50865

MannKind Corporation
(Exact name of registrant as specified in its charter)

Delaware	**13-3607736**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
28903 North Avenue Paine Valencia, California	**91355**
(Address of principal executive offices)	**(Zip Code)**

(661) 775-5300
(Registrant's telephone number, including area code)

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

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

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

As of August 7, 2015, there were 414,033,866 shares of the registrant's common stock, $0.01 par value per share, outstanding.

MANNKIND CORPORATION

Form 10-Q

For the Quarterly Period Ended June 30, 2015

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PART 1: FINANCIAL INFORMATION
ITEM 1. FINANCIAL STATEMENTS
MANNKIND CORPORATION AND SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited)
(In thousands, except share data)

	June 30, 2015	December 31, 2014
ASSETS		
Current assets:		
Cash and cash equivalents	$ 107,187	$ 120,841
Receivables from collaboration	4,748	50,436
Inventory	19,816	9,670
Prepaid expenses and other current assets	14,076	20,206
Total current assets	145,827	201,153
Property and equipment — net	193,868	192,127
Deferred product costs from collaboration	10,831	—
Other assets	2,025	1,159
Total assets	$ 352,551	$ 394,439
LIABILITIES AND STOCKHOLDERS' DEFICIT		
Current liabilities:		
Accounts payable	$ 5,190	$ 7,394
Accrued expenses and other current liabilities	13,930	26,206
Facility financing obligation	73,757	72,995
Senior convertible notes-current	64,123	99,355
Deferred product sales from collaboration	13,404	436
Deferred payments from collaboration	171,850	196,967
Total current liabilities	342,254	403,353
Note payable to principal stockholder	49,521	49,521
Sanofi loan facility and loss share obligation	28,415	3,034
Senior convertible notes-long term	35,713	—
Other liabilities	12,123	12,301
Total liabilities	468,026	468,209
Commitments and contingencies		
Stockholders' deficit:		
Undesignated preferred stock, $0.01 par value — 10,000,000 shares authorized; no shares issued or outstanding at June 30, 2015 and December 31, 2014	—	—
Common stock, $0.01 par value — 550,000,000 shares authorized at June 30, 2015 and December 31, 2014; 412,316,619 and 406,059,089 shares issued and outstanding at June 30, 2015 and December 31, 2014, respectively	4,121	4,061
Additional paid-in capital	2,434,777	2,416,967
Accumulated other comprehensive loss	(20)	(14)
Accumulated deficit	(2,554,353)	(2,494,784)
Total stockholders' deficit	(115,475)	(73,770)
Total	$ 352,551	$ 394,439

See notes to condensed consolidated financial statements.

MANNKIND CORPORATION AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited)
(In thousands, except per share data)

	Three months ended June 30,		Six months ended June 30,	
	2015	2014	2015	2014
Revenue	$ —	$ —	$ —	$ —
Operating expenses:				
Research and development	7,737	37,323	17,115	63,506
General and administrative	10,623	32,523	21,102	47,752
Product manufacturing	5,691	—	7,573	—
Total operating expenses	24,051	69,846	45,790	111,258
Loss from operations	(24,051)	(69,846)	(45,790)	(111,258)
Other income (expense)	(10)	(370)	1,403	(6,260)
Interest expense on note payable to principal stockholder	(721)	(721)	(1,435)	(1,435)
Interest expense on notes	(4,131)	(2,429)	(13,753)	(6,471)
Interest income	3	1	6	2
Loss before benefit for income taxes	(28,910)	(73,365)	(59,569)	(125,422)
Income tax benefit	—	—	—	—
Net loss	$ (28,910)	$ (73,365)	$ (59,569)	$(125,422)
Net loss per share — basic and diluted	$ (0.07)	$ (0.19)	$ (0.15)	$ (0.33)
Shares used to compute basic and diluted net loss per share	401,018	380,770	399,972	374,810

See notes to condensed consolidated financial statements.

MANNKIND CORPORATION AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(Unaudited)
(In thousands)

	Three months ended June 30,		Six months ended June 30,	
	2015	2014	2015	2014
Net loss	$(28,910)	$(73,365)	$(59,569)	$(125,422)
Other comprehensive loss:				
Cumulative translation (loss) gain	1	—	(6)	—
Unrealized gain (loss) on investments:				
Unrealized holding gain (loss) during the period	—	—	—	—
Less: reclassification adjustment for gains (losses) included in net loss	—	—	—	—
Net unrealized gain on investments	—	—	—	—
Other comprehensive loss	1	—	(6)	—
Comprehensive loss	$(28,909)	$(73,365)	$(59,575)	$(125,422)

See notes to condensed consolidated financial statements.

MANNKIND CORPORATION AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)
(In thousands)

	Six months ended June 30,	
	2015	2014
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss	$ (59,569)	$(125,422)
Adjustments to reconcile net loss to net cash provided by (used) in operating activities:		
Depreciation and accretion	6,624	12,614
Stock-based compensation expense	3,778	51,583
Loss on disposal of property and equipment	12	—
Write off of derivative liability	—	(363)
Other, net	(6)	—
Changes in assets and liabilities:		
Inventory	(10,146)	—
Receivables from Collaboration	45,688	—
Prepaid expenses and other current assets	6,130	1,789
Deferred product costs from collaboration	(10,831)	—
Other assets	(866)	(296)
Accounts payable	(2,236)	1,567
Accrued expenses and other current liabilities	(7,800)	(3,315)
Deferred product sales from collaboration	12,968	—
Other liabilities	1,465	1,435
Net cash used in operating activities	(14,789)	(60,408)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchase of property and equipment	(8,737)	(9,667)
Net cash used in investing activities	(8,737)	(9,667)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Issuance of common stock and warrants, net of issuance costs	12,820	20,622
Proceeds from issuance of Tranche B of the facility financing obligation	—	20,000
Milestone payment	(4,220)	—
Other	40	—
Proceeds from issuance of common stock pursuant to ATM issuance	2,050	—
Payment of employment taxes related to vested restricted stock units	(818)	(123)
Net cash provided by financing activities	9,872	40,499
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	$ (13,654)	$ (29,576)
CASH AND CASH EQUIVALENTS, BEGINNING OF PERIOD	120,841	70,790
CASH AND CASH EQUIVALENTS, END OF PERIOD	$107,187	$ 41,214
SUPPLEMENTAL CASH FLOWS DISCLOSURES:		
Interest paid in cash, net of amounts capitalized	6,644	5,296
Issuance of common stock pursuant to conversion of facility financing obligation	—	93,500
Non-cash construction in progress and property and equipment	623	2,965
Reclassification of share-based awards to liability	—	(19,926)
Tranche B Commitment Asset	—	1,753

See notes to condensed consolidated financial statements.

MANNKIND CORPORATION AND SUBSIDIARIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

1. Description of business and basis of presentation

The accompanying unaudited condensed consolidated financial statements of MannKind Corporation and its subsidiaries ("MannKind," the "Company," "we" or "us"), have been prepared in accordance with generally accepted accounting principles in the United States of America ("GAAP") for interim financial information and with the instructions to Form 10-Q and Article 10 of Regulation S-X of the Securities and Exchange Commission (the "SEC"). Accordingly, they do not include all of the information and footnotes required by GAAP for complete financial statements. The information included in this quarterly report on Form 10-Q should be read in conjunction with the audited consolidated financial statements and notes thereto included in the Company's annual report on Form 10-K for the fiscal year ended December 31, 2014 filed with the SEC on March 2, 2015 (the "Annual Report").

In the opinion of management, all adjustments, consisting only of normal, recurring adjustments, considered necessary for a fair presentation of the results of these interim periods have been included. The results of operations for the three and six months ended June 30, 2015 may not be indicative of the results that may be expected for the full year.

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates or assumptions. The more significant estimates reflected in these accompanying financial statements involve assessing long-lived assets and deferred product costs for impairment, accrued expenses, valuation of stock-based compensation and the determination of the provision for income taxes and corresponding deferred tax assets and liabilities and any valuation allowance recorded against net deferred tax assets. The estimation process often may yield a range of potentially reasonable estimates of the ultimate future outcomes and management must select an amount that falls within that range of reasonable estimates. This process may result in actual results differing materially from those estimated amounts used in the preparation of the financial statements.

Business — MannKind is a biopharmaceutical company focused on the discovery and development of therapeutic products for diseases such as diabetes. The Company's only approved product, AFREZZA (insulin human [rDNA origin]) inhalation powder, is a rapid-acting inhaled insulin that was approved by the U.S. Food and Drug Administration (the "FDA") on June 27, 2014 to improve glycemic control in adult patients with diabetes. In August 2014, the Company entered into a license and collaboration agreement (the "Sanofi License Agreement") with Sanofi-Aventis Deutschland GmbH (which subsequently assigned its rights and obligations under the agreement to Sanofi-Aventis U.S. LLC ("Sanofi")), pursuant to which Sanofi is responsible for global commercial, regulatory and development activities for AFREZZA. The Sanofi License Agreement became effective on September 23, 2014. The Company manufactures AFREZZA at its manufacturing facility in Danbury, Connecticut to supply Sanofi's demand for the product. In addition, the Company and Sanofi are planning to collaborate to expand manufacturing capacity to meet global demand as necessary (see Note 7 – Collaboration arrangement). AFREZZA became available by prescription in United States retail pharmacies in February 2015.

Basis of Presentation — The Company's primary activities since incorporation have been establishing its facilities, recruiting personnel, conducting research and development, business development, business and financial planning, raising capital, and undertaking pre-commercialization and commercialization activities related to AFREZZA. It is costly to develop therapeutic products and conduct associated clinical studies. As of June 30, 2015, the Company had an accumulated deficit of $2.6 billion and a stockholders' deficit of $115.5 million. Historically the Company has reported negative cash flow from operations other than for the nine months ended September 30, 2014, the year ended December 31, 2014, and for the three months ended March 31, 2015, as a result of receipt of the upfront payment and milestone payments under the Sanofi License Agreement.

At June 30, 2015, the Company's capital resources consisted of cash and cash equivalents of $107.2 million. The Company expects to continue to incur significant expenditures to support commercial manufacturing of AFREZZA and the development of other product candidates. In addition, the Company had $244.9 million principal amount of outstanding debt as of June 30, 2015, including $100.0 million principal amount of outstanding 5.75% Senior Convertible Notes due 2015 (the "2015 notes"), which have a maturity date of August 15, 2015. See Note 5 – Related-party arrangements, Note 6 – Senior convertible notes, Note 7 – Collaboration arrangement—Sanofi Loan Facility, Note 14 – Facility Agreement, and Note 15 – Subsequent events. In addition, the Company's facility agreement (the "Facility Agreement") with Deerfield Private Design Fund II, L.P. and Deerfield Private Design International II, L.P. (collectively, "Deerfield") (see Note 14 – Facility Agreement) contains a financial covenant that requires the Company's cash and cash equivalents, which include available borrowings under the Company's loan arrangement (the "Loan Arrangement") with The Mann Group LLC ("The Mann Group"), on the last day of each fiscal quarter to not be less than $25.0 million. As of August 10, 2015, pursuant to privately-negotiated exchange agreements with select holders of 2015 notes, the Company issued $27.7 million aggregate

principal in 2018 notes. In addition, the Company issued 1.9 million shares of the Company's common stock in exchange for $8.0 million aggregate principal of 2015 notes. Unless the holders of the remaining outstanding 2015 notes or the holders of the new 2015 notes elect to convert such notes into the Company's common stock prior to their due date, the Company intends to settle the unconverted notes with either available cash or raise additional funds. However, the Company cannot provide assurance that such additional funds will be available on acceptable terms or at all. The Company cannot be certain that it will achieve its projected cashflows , which raises substantial doubt about the Company's ability to continue as a going concern. The financial statements do not include any adjustments that might result from the outcome of these uncertainties.

Under the Sanofi License Agreement, Sanofi paid the Company an up-front cash payment of $150.0 million in the third quarter of 2014, and $50.0 million in milestone payments in the first quarter of 2015. The foregoing milestone payments were earned as of December 31, 2014. We are also eligible to receive up to $725.0 million in additional milestone payments under the Sanofi License Agreement if certain development, regulatory and sales milestones are achieved. Worldwide profits and losses, which are determined based on the difference between the net sales of AFREZZA and the costs and expenses incurred by us and Sanofi that are specifically attributable or related to the development, regulatory filings, manufacturing, or commercialization of AFREZZA, will be shared 65% by Sanofi and 35% by the Company. In connection with the Sanofi License Agreement, an affiliate of Sanofi provided us with a secured loan facility (the "Sanofi Loan Facility") of up to $175.0 million to fund the Company's share of net losses under the Sanofi License Agreement.

Additional funding sources that are, or in certain circumstances may be available to the Company, include approximately $30.1 million principal amount of available borrowings under its Loan Arrangement (see Note 5 – Related-party arrangements) and potential proceeds from the exercise of warrants issued in its February 2012 public offering of approximately $9.8 million, and the Company's at-the-market issuance sales agreements which allow the Company to sell up to $47.9 million in common stock provided no sales may be made except pursuant to an effective registration statement. In April 2015, the Company sold $2.1 million in common stock under the at-the-market sales agreement. The registration statement under which the shares that may be sold pursuant to the at-the-market issuance sales agreements are registered will expire on August 31, 2015. The Company cannot provide assurances that its plans will not change or that changed circumstances will not result in the depletion of its capital resources more rapidly than it currently anticipates. The Company may need to raise additional capital, whether through a sale of equity or debt securities, a strategic business collaboration with a pharmaceutical company, the establishment of other funding facilities, licensing arrangements, asset sales or other means, in order to continue the development and commercialization of AFREZZA and other product candidates and to support its other ongoing activities. However, the Company cannot provide assurances that such additional capital will be available on acceptable terms or at all.

Fair Value of Financial Instruments — The carrying amounts reported in the accompanying financial statements for cash and cash equivalents, accounts payable and accrued liabilities approximate their fair value due to their relatively short maturities. The fair value of the cash equivalents, note payable to related party, senior convertible notes, and the Facility Agreement are discussed in Note 8 – Fair Value of Financial Instruments.

Deferred product costs from collaboration — Deferred product costs represent the costs of product manufactured and sold to Sanofi, as long as they are not greater than the amount of deferred product sales related to the collaboration, for which recognition of revenue has been deferred. Given that the costs of inventory delivered to a customer, but for which revenue may not yet be recognized, meet both the definition and characteristics of an "asset" and the Company believes that it is probable that the amount of future revenue will exceed the amount of deferred costs (i.e., the asset would be realizable through the recognition of probable future income), the Company has elected to account for the deferred costs related to the product sold to Sanofi as an asset and carry forward to future periods until the related revenue is recognized.

Recently Issued Accounting Standards — From time to time, new accounting pronouncements are issued by the Financial Accounting Standards Board (FASB) or other standard setting bodies that are adopted by the Company as of the specified effective date.

In May 2014, a new standard was issued related to revenue recognition, which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. The guidance requires a company to recognize revenue to depict the transfer of goods or services to customers in an amount that reflects the consideration it expects to be entitled to receive in exchange for those goods or services. In July 2015, the FASB decided to delay the effective date of the new revenue standard by one year. The FASB also agreed to allow entities to choose to adopt the standard as of the original effective date. The standard is effective beginning the first quarter of the Company's 2018 fiscal year and may be adopted either by restating all years presented in the Company's financial statements or by recording the impact of adoption as an adjustment to retained earnings at the beginning of fiscal 2018. The Company is assessing the potential impact of the new standard on its consolidated statements of financial position and results of operations and comprehensive income (loss) and has not yet selected a transition method.

In August 2014, the FASB issued ASU 2014-15, which provides guidance on determining when and how reporting entities must disclose going-concern uncertainties in their financial statements. The new standard requires management to perform interim and annual assessments of an entity's ability to continue as a going concern within one year of the date of issuance of the entity's financial statements (or within one year after the date on which the financial statements are available to be issued, when applicable). Further, an entity must provide certain disclosures if there is "substantial doubt about the entity's ability to continue as a going concern". The ASU is effective for annual periods ending after December 15, 2016, and interim periods thereafter; early adoption is permitted. The Company is evaluating the impact the adoption of ASU 2014-15 will have on its consolidated financial statements.

In April 2015, the FASB issued ASU 2015-03, "Simplifying the Presentation of Debt Issuance Costs." The guidance requires debt issuance costs to be presented in the balance sheet as a direct deduction from the carrying value of the associated debt, consistent with the presentation of a debt discount. The guidance is effective for annual reporting periods beginning after December 15, 2015 and interim periods thereafter. Early adoption is permitted. The Company does not believe the adoption of the new standard will have a material impact on its consolidated financial statements and disclosures.

In July 2015, The FASB has issued ASU 2015-11, Inventory (Topic 330): Simplifying the Measurement of Inventory. Topic 330, Inventory, currently requires an entity to measure inventory at the lower of cost or market. Market could be replacement cost, net realizable value, or net realizable value less an approximately normal profit margin. The amendments do not apply to inventory that is measured using last-in, first-out (LIFO) or the retail inventory method. The amendments apply to all other inventory, which includes inventory that is measured using first-in, first-out (FIFO) or average cost. The amendments are effective for fiscal years beginning after December 15, 2016, including interim periods within those fiscal years. The amendments should be applied prospectively with earlier application permitted as of the beginning of an interim or annual reporting period. The Company is evaluating the impact the adoption of ASU 2015-11 will have on its consolidated financial statements.

2. Inventories

Inventories consist of the following (in thousands):

	June 30, 2015	December 31, 2014
Raw materials	$16,038	$ 4,856
Work-in-process	3,757	4,719
Finished goods	21	95
Total inventories	$19,816	$ 9,670

3. Property and equipment

Property and equipment — net consist of the following (dollar amounts in thousands):

	Estimated Useful Life (Years)	June 30, 2015	December 31, 2014
Land	—	$ 5,273	$ 5,273
Buildings	39-40	54,948	54,948
Building improvements	5-40	131,300	114,131
Machinery and equipment	3-15	102,996	80,919
Furniture, fixtures and office equipment	5-10	5,015	5,015
Computer equipment and software	3	10,355	10,465
Leasehold improvements	4	17	17
Construction in progress		7,118	39,580
		317,022	310,348
Less accumulated depreciation and amortization		(123,154)	(118,221)
Property and equipment — net		$ 193,868	$ 192,127

Leasehold improvements are amortized over four years which is the shorter of the term of the lease or the service lives of the improvements.

Depreciation and amortization expense related to property and equipment for the three and six months ended June 30, 2015 and 2014 was as follows (in thousands):

	Three months ended June 30,		Six months ended June 30,	
	2015	2014	2015	2014
Depreciation and amortization expense	$ 2,740	$ 2,449	$5,117	$4,972

4. Accrued expenses and other current liabilities

Accrued expenses and other current liabilities consist of the following (in thousands):

	June 30, 2015	December 31, 2014
Salary and related expenses	$ 8,455	$ 14,928
Accrued interest	2,396	2,396
Construction in progress	42	1,343
Other	3,037	7,539
Accrued expenses and other current liabilities	$13,930	$ 26,206

5. Related-party arrangements

In October 2007, the Company entered into a $350.0 million loan arrangement with its principal stockholder. The Loan Arrangement has been amended from time to time. On October 31, 2013, the promissory note underlying the Loan Arrangement was amended to, among other things, extend the maturity date of the loan to January 5, 2020, extend the date through which the Company can borrow under the Loan Arrangement to December 31, 2019, increase the aggregate borrowing amount under the Loan Arrangement from $350.0 million to $370.0 million and provide that repayments or cancellations of principal under the Loan Arrangement will not be available for reborrowing.

As of June 30, 2015, the total principal amount outstanding under the Loan Arrangement was $49.5 million, and the amount available for future borrowings was $30.1 million. Interest, at a fixed rate of 5.84%, is due and payable quarterly in arrears on the first day of each calendar quarter for the preceding quarter, or at such other time as the Company and The Mann Group mutually agree. All or any portion of accrued and unpaid interest that becomes due and payable may be paid-in-kind and capitalized as additional borrowings at any time and would be classified as non-current upon mutual agreement of both parties. As of June 30, 2015, the Company had accrued $4.9 million of interest in other liabilities related to the Loan Arrangement. The Mann Group can require the Company to prepay up to $200.0 million in advances that have been outstanding for at least 12 months (less approximately $105.0 million aggregate principal amount that has been cancelled in connection with two common stock purchase agreements). If The Mann Group exercises this right, the Company will have 90 days after The Mann Group provides written notice (or the number of days to maturity of the note if less than 90 days) to prepay such advances. However, pursuant to a letter agreement entered into in August 2010, The Mann Group has agreed to not require the Company to prepay amounts outstanding under the amended and restated promissory note if the prepayment would require the Company to use its working capital resources. In addition, The Mann Group entered into a subordination agreement with Deerfield pursuant to which The Mann Group agreed with Deerfield not to demand or accept any payment under the Loan Arrangement until the Company’s payment obligations to Deerfield under the Facility Agreement have been satisfied in full. Subject to the foregoing, in the event of a default under the Loan Arrangement, all unpaid principal and interest either becomes immediately due and payable or may be accelerated at The Mann Group’s option, and the interest rate will increase to the one-year LIBOR calculated on the date of the initial advance or in effect on the date of default, whichever is greater, plus 5% per annum. All borrowings under the Loan Arrangement are unsecured. The Loan Arrangement contains no financial covenants.

During the six months ended June 30, 2015, there were no additional borrowings under or amendments to the Loan Arrangement.

6. Senior convertible notes

Senior convertible notes consist of the following (in thousands):

	June 30, 2015	December 31, 2014
2015 notes		
Principal amount	$100,000	$ 100,000
Unaccreted debt issuance expense	(164)	(645)
Net carrying amount	$ 99,836	$ 99,355

On August 18, 2010, the Company completed a Rule 144A offering of $100.0 million aggregate principal amount of 2015 notes. The 2015 notes are governed by the terms of an indenture dated as of August 24, 2010 (the "2015 Note Indenture"). The 2015 notes bear interest at the rate of 5.75% per year on the principal amount, payable in cash semi-annually in arrears on February 15 and August 15 of each year, beginning February 15, 2011. In connection with the 2015 notes, the Company had accrued interest of $2.4 million as of both June 30, 2015 and December 31, 2014. The 2015 notes are general, unsecured, senior obligations of the Company and effectively rank junior in right of payment to all of the Company's secured debt, to the extent of the value of the assets securing such debt, and to the debt and all other liabilities of the Company's subsidiaries. The maturity date of the 2015 notes is August 15, 2015 and payment is due in full on that date for any outstanding, unconverted securities. Holders of the 2015 notes may convert, at any time prior to the close of business on the business day immediately preceding the stated maturity date, any outstanding principal into shares of the Company's common stock at an initial conversion rate of 147.0859 shares per $1,000 principal amount, which is equal to a conversion price of approximately $6.80 per share, subject to adjustment. Except in certain circumstances, if the Company undergoes a fundamental change: (1) the Company will pay a make-whole premium on the 2015 notes converted in connection with a fundamental change by increasing the conversion rate on such 2015 notes, which amount, if any, will be based on the Company's common stock price and the effective date of the fundamental change, and (2) each holder of 2015 notes will have the option to require the Company to repurchase all or any portion of such holder's 2015 notes at a repurchase price of 100% of the principal amount of the 2015 notes to be repurchased plus accrued and unpaid interest, if any. The Company may elect to redeem some or all of the 2015 notes if the closing stock price has equaled 150% of the conversion price for at least 20 of the 30 consecutive trading days ending on the trading day before the Company's redemption notice. The redemption price will equal 100% of the principal amount of the 2015 notes to be redeemed, plus accrued and unpaid interest, if any, up to, but excluding, the redemption date, plus a make-whole payment equal to the sum of the present values of the remaining scheduled interest payments through and including August 15, 2015 (other than interest accrued up to, but excluding, the redemption date). The Company will be obligated to make the make-whole payment on all of the 2015 notes called for redemption and converted during the period from the date the Company mailed the notice of redemption to and including the redemption date. The Company may elect to make the make-whole payment in cash or shares of its common stock, subject to certain limitations. Under the terms of the 2015 Note Indenture, the conversion option can be net-share settled and the maximum number of shares that could be required to be delivered under the contract, including the make-whole shares, is fixed and less than the number of authorized and unissued shares less the maximum number of shares that could be required to be delivered during the contract period under existing commitments. Applying the Company's sequencing policy, the Company performed an analysis at the time of the offering of the 2015 notes and each reporting date since and has concluded that the number of available authorized shares at the time of the offering and each subsequent reporting date was sufficient to deliver the number of shares that could be required to be delivered during the contract period under existing commitments.

The Company incurred approximately $4.2 million in issuance costs which are recorded as an offset to the 2015 notes in the accompanying condensed consolidated balance sheets. These costs are being accreted to interest expense using the effective interest method over the term of the 2015 notes.

The 2015 notes provide that upon an acceleration of certain indebtedness, including the 9.75% Senior Convertible Notes due 2019 (the "2019 notes") and the 8.75% Senior Convertible Notes due 2019 (the "Tranche B notes") issued to Deerfield pursuant to the Facility Agreement (see Note 14 – Facility Agreement), the holders may elect to accelerate the Company's repayment obligations under the notes if such acceleration is not cured, waived, rescinded or annulled. There can be no assurance that the holders would not choose to exercise these rights in the event such events were to occur.

Accretion of debt issuance expense in connection with the 2015 notes during the three and six months ended June 30, 2015 and 2014 were as follows (in thousands):

	Three months ended June 30,		Six months ended June 30,	
	2015	2014	2015	2014
Accretion expense	$ 243	$ 227	$ 481	$ 450

7. Collaboration arrangement

Sanofi License Agreement and Sanofi Supply Agreement

On August 11, 2014, the Company and Sanofi entered into the Sanofi License Agreement, which became effective on September 23, 2014. Under the terms of the Sanofi License Agreement, the Company granted to Sanofi exclusive, worldwide licenses to certain of the Company's patents, trademarks and know-how for the development and commercialization of AFREZZA. Under the terms of the Sanofi License Agreement, Sanofi has the exclusive right and responsibility to develop AFREZZA worldwide, subject to certain development activities that will be performed by the Company. Sanofi will also be obligated to use commercially reasonable efforts to file for, obtain and maintain marketing approvals for AFREZZA in certain major markets and countries. In addition, Sanofi will have exclusive, worldwide rights to commercialize AFREZZA and will be obligated to use commercially reasonable efforts to market, promote and commercialize AFREZZA in all countries in the world where regulatory approval for AFREZZA has been received. Under the Sanofi License Agreement, Sanofi paid the Company an up-front cash payment of $150.0 million in the third quarter of 2014 and a subsequent payment of $50.0 million in the first quarter of 2015 for the achievement of two manufacturing milestones as of December 31, 2014. If certain development, regulatory and sales milestones are achieved, the Company will also be eligible to receive up to $725.0 million in additional milestone payments, of which $25.0 million relates to a development milestone event, $50.0 million relates to the filing and completion of regulatory approvals and $650.0 million relates to the achievement of certain product sales milestones. In addition, worldwide profits and losses, which are determined based on the difference between the net sales of AFREZZA and the costs and expenses incurred by the Company and Sanofi that are specifically attributable or related to the development, improvement, regulatory filings, manufacturing, and commercialization of AFREZZA will be shared 65% by Sanofi and 35% by the Company. In accordance with the terms of the Sanofi License Agreement, profit and loss sharing commenced in the fourth quarter of 2014.

Pursuant to the terms of the Sanofi Supply Agreement, the Company will be the exclusive manufacturer and supplier of AFREZZA until the specified conditions are met, upon which a portion of the manufacturing activities may be assumed by Sanofi.

The Company analyzed the agreements entered into with Sanofi under the provisions of ASC 605, *Revenue Recognition*, to determine whether the consideration, or a portion thereof, could be recognized as revenue. ASC 605 provides that revenue is recognized when there is persuasive evidence that an arrangement exists, delivery has occurred or services have been rendered, the price is fixed or determinable and collection is reasonably assured. In addition, revenue arrangements with multiple elements are divided into separate units of accounting if certain criteria are met, including whether the delivered element has stand-alone value to the customer. When deliverables are separable, consideration received is allocated to the separate units of accounting based on the relative selling price of each deliverable and the appropriate revenue recognition principles are applied to each unit.

The assessment of multiple element arrangements requires judgment in order to determine the appropriate units of accounting and the points in time that, or periods over which, revenue should be recognized. Under the terms of the Sanofi License Agreement, Sanofi Supply Agreement and the Sanofi Loan Facility the Company determined that the arrangement contained significant deliverables including (i) licenses to develop and commercialize AFREZZA and to use the Company's trademarks, (ii) development activities, and (iii) manufacture and supply services for AFREZZA. Due to the proprietary nature of the manufacturing services being provided by the Company, the Company determined that all of the significant deliverables should be combined into a single unit of accounting. The Company believes that the manufacturing services are proprietary due to the fact that since the late 1990's, the Company has developed proprietary knowledge and patented equipment and tools that are used in the manufacturing process of AFREZZA. Due to the complexities of particle formulation and the specialized knowledge and equipment needed to handle the AFREZZA powder, neither Sanofi nor any third-party contract manufacturing organization currently possesses the capability of manufacturing AFREZZA.

In order for revenue to be recognized, the seller's price to the buyer must be fixed and determinable. Given that as of June 30, 2015, the Company did not have the ability to estimate the amount of costs that would potentially be incurred under the loss share provision related to the Sanofi License Agreement and the Sanofi Supply Agreement, the Company believes this requirement for revenue recognition has not been met.

As such, the Company did not recognize any revenue pursuant to the Sanofi License Agreement or the Sanofi Supply Agreement for the three or six months ended June 30, 2015. The Company has recorded the $150.0 million up-front payment and $50.0 million from milestone payments as deferred payments from collaboration. In addition, as of June 30, 2015 the Company has recorded $13.4 million in AFREZZA product shipments to Sanofi as deferred product sales from collaboration and recorded $10.8 million as deferred product costs from collaboration. Deferred product costs represent the costs of product manufactured and shipped to Sanofi, not to exceed the amount of deferred product sales, for which recognition of revenue has been deferred. During the three months ended March 31, 2015 and June 30, 2015, the Company's portion of the loss sharing was $12.4 million and $12.8 million, respectively, which resulted in the reclassification from current deferred payments from collaboration to Sanofi loan facility and loss share obligation.

Sanofi Loan Facility

On September 23, 2014, the Company entered into the Sanofi Loan Facility, consisting of a senior secured revolving promissory note (the "Note") and a guaranty and security agreement (the "Security Agreement") with an affiliate of Sanofi which provides the Company with a secured loan facility of up to $175.0 million to fund the Company's share of net losses under the Sanofi License Agreement. In the event of certain future defaults under the Sanofi Loan facility agreement for which the Company is not able to obtain waivers, the lender under the Sanofi Loan Facility may accelerate all of the Company's repayment obligations, and take control of the Company's pledged assets, potentially requiring the Company to renegotiate the terms of its indebtedness on terms less favorable to the Company, or to immediately cease operations.

Advances under the Sanofi Loan Facility bear interest at a rate of 8.5% per annum and are payable in-kind and compounded quarterly and added to the outstanding principal balance under the Sanofi Loan Facility. The Company is required to make mandatory prepayments on the outstanding loans under the Sanofi Loan Facility from its share of any Profits (as defined in the Sanofi License Agreement) under the Sanofi License Agreement within 30 days of receipt of its share of any such Profits. No advances may be made under the Sanofi Loan Agreement if Deerfield has commenced enforcement proceedings in connection with an event of default under the Facility Agreement.

The outstanding principal of all loans under the Sanofi Loan Facility, if not prepaid, will become due and payable on September 23, 2024 unless accelerated pursuant to the terms of the Sanofi Loan Facility. Additionally, if the Company sells its Valencia facility, the Company is required to prepay the loans under the Sanofi Loan Facility in an amount equal to 100% of the net cash proceeds of the sale within five business days of receipt.

In order to fund the Company's portion of the loss sharing during the three months ended June 30, 2015, subsequent to June 30, 2015, the Company borrowed $12.8 million under the Sanofi Loan Facility to finance the portion of the Company's loss from the quarter ended June 30, 2015. As of August 10, 2015, the total amount owed to Sanofi under the Sanofi Loan Facility was $28.4 million, which includes $0.2 million in paid-in-kind interest.

8. Fair Value of Financial Instruments

The Company applies various valuation approaches in determining the fair value of its financial assets and liabilities within a hierarchy that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that observable inputs be used when available. Observable inputs are inputs that market participants would use in pricing the asset or liability based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company's assumptions about the inputs that market participants would use in pricing the asset or liability and are developed based on the best information available in the circumstances. The fair value hierarchy is broken down into three levels based on the source of inputs as follows:

Level 1— Quoted prices for identical instruments in active markets.

Level 2— Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations whose inputs are observable or whose significant value drivers are observable.

Level 3— Significant inputs to the valuation model are unobservable.

The availability of observable inputs can vary among the various types of financial assets and liabilities. To the extent that the valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment. In certain cases, the inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, for financial statement disclosure purposes, the level in the fair value hierarchy within which the fair value measurement is categorized is based on the lowest level input that is significant to the overall fair value measurement.

Cash and cash equivalents

Cash equivalents consist of highly liquid investments with original or remaining maturities of 90 days or less at the time of purchase, that are readily convertible into cash. As of June 30, 2015 and December 31, 2014, the Company held $107.2 million and $120.8 million, respectively, of cash and cash equivalents, consisting primarily of money market funds of $104.7 million and $118.5 million, respectively, and the remaining in non-interest bearing checking accounts. The fair value of these money market funds was determined by using quoted prices for identical investments in an active market, which equals carrying value (Level 1 in the fair value hierarchy).

Related-Party Arrangement

The fair value of the note payable to our principal stockholder cannot be reasonably estimated as the Company would not be able to obtain a similar credit arrangement in the current economic environment.

Senior convertible notes and facility financing obligation

The following is a summary of the carrying values and estimated fair values of the 2015 notes and the facility financing obligation (i.e., the 2019 notes and Tranche B notes) (in millions):

	June 30, 2015		December 31, 2014	
	Carrying value	Estimated fair value	Carrying value	Estimated fair value
2015 notes	$ 99.8	$ 103.2	$ 99.4	$ 102.9
Facility financing obligation	$ 73.8	$ 77.9	$ 73.0	$ 75.1

The estimated fair value of the 2015 notes was calculated based on model-derived valuations whose inputs were observable, such as the Company's stock price, and non-observable, such as the Company's longer-term historical volatility (Level 3 in the fair value hierarchy). As there is no current observable market for the 2015 notes, the Company determined the estimated fair value using a convertible bond valuation model within a lattice framework. The convertible bond valuation model combined expected cash outflows with market-based assumptions regarding risk-adjusted yields, stock price volatility and recent price quotes and trading information regarding Company issued debt instruments and shares of common stock into which the notes are convertible.

Facility Agreement

As discussed in Note 14 — Facility Agreement, in connection with the Facility Agreement, the Company issued 2019 notes and certain rights to receive payments of up to $90.0 million upon the occurrence of specified strategic and sales milestones (the "Milestone Rights") and subsequently issued Tranche B notes. As there is no current observable market for the 2019 notes or Tranche B notes, the Company determined the estimated fair value using a bond valuation model based on a discounted cash flow methodology. The bond valuation model combined expected cash flows associated with principal repayment and interest based on the contractual terms of the debt agreement discounted to present value using a selected market discount rate. At June 30, 2015 the market discount rate was recalculated at 12.0% for the 2019 notes and the Tranche B notes (Level 3 in the fair value hierarchy).

The estimated fair value of the Milestone Rights was calculated using the income approach in which the cash flows associated with the specified contractual payments were adjusted for both the expected timing and the probability of achieving the milestones discounted to present value using a selected market discount rate (Level 3 in the fair value hierarchy). The expected timing and probability of achieving the milestones, starting in 2014, was developed with consideration given to both internal data, such as progress made to date and assessment of criteria required for achievement, and external data, such as market research studies. The discount rate (15.5%) was selected based on an estimation of required rate of returns for similar investment opportunities using available market data. As of June 30, 2015, the fair value of the Milestone Rights is estimated at $43.9 million.

Sanofi Loan Facility

As discussed in Note 7 — the Sanofi Loan Facility, consists of a senior secured revolving promissory note and a guaranty and security agreement with an affiliate of Sanofi which provides the Company with a secured loan facility of up to $175.0 million to fund the Company's share of net losses under the Sanofi License Agreement. As of June 30, 2015, the Company has borrowed $15.6 million, which includes $0.2 million in paid-in-kind interest, under the Sanofi Loan Facility and the estimated fair value was determined to approximate the carrying value based on the consideration of the key elements of the contractual terms of the Sanofi Loan Facility, market-based estimated cost of capital, and time value of money, namely the amount of time to settlement and the estimated discount rate appropriate for the liability (Level 2 in the fair value hierarchy).

This analysis was performed using a discounted cash flow model in which time outstanding and discount rate were the primary variables.

There were no material re-measurements to fair value during the six months ended June 30, 2015 of financial assets and liabilities that are not measured at fair value on a recurring basis. There were no transfers of assets or liabilities between the fair value measurement levels during the six months ended June 30, 2015.

9. Common and preferred stock

Included in the common stock outstanding as of June 30, 2015 and December 31, 2014 are 9,000,000 shares of common stock loaned to Bank of America, N.A. under a share lending agreement in connection with the offering of $100.0 million aggregate principal amount of 2015 notes (see Note 6 — Senior convertible notes). Bank of America is obligated to return the borrowed shares (or, in certain circumstances, the cash value thereof) to the Company on or about the 45th business day following the date as of which the entire principal amount of the 2015 notes ceases to be outstanding, subject to extension or acceleration in certain circumstances or early termination at Bank of America's option. The Company did not receive any proceeds from the sale of the borrowed shares by Bank of America, but the Company did receive a nominal lending fee of $0.01 per share from Bank of America for the use of borrowed shares.

10. Accounting for stock-based compensation

Total stock-based compensation expense recognized in the accompanying condensed consolidated statements of operations for the three and six months ended June 30, 2015 and 2014 was as follows (in thousands):

	Three months ended June 30,		Six months ended June 30,	
	2015	2014	2015	2014
Stock-based compensation	$ 1,775	$ 40,644	$ 3,778	$ 51,583

During the three months ended March 31, 2015, the Company issued stock awards to employees with a four-year vesting schedule. The grant date fair value of the 36,300 restricted stock units and 73,600 stock options issued was $262,086 and $382,720, respectively, with a grant date fair value per share of $7.22 and $5.20, respectively.

During the three months ended June 30, 2015, the Company issued stock awards to employees with a four-year vesting schedule. The grant date fair value of the 194,704 restricted stock units and 208,000 stock options issued was $901,480 and $603,802 respectively, with a grant date fair value per share of $4.63 and $2.90, respectively.

As of June 30, 2015, there was $7.3 million and $8.6 million of unrecognized compensation cost related to options and restricted stock units, respectively, which are expected to be recognized over the remaining weighted average vesting period of 2.6 years.

11. Net loss per common share

Basic net loss per share excludes dilution for potentially dilutive securities and is computed by dividing net loss by the weighted average number of common shares outstanding during the period excluding the shares loaned to Bank of America under a share lending arrangement (see Note 9 — Common and preferred stock). As of June 30, 2015, 9,000,000 shares of the Company's common stock, which were loaned to Bank of America pursuant to the terms of a share lending agreement, were issued and are outstanding, and the holder of the borrowed shares has all the rights of a holder of the Company's common stock. However, because the share borrower must return all borrowed shares to the Company (or, in certain circumstances, the cash value thereof), the borrowed shares are not considered outstanding for the purpose of computing and reporting basic or diluted earnings (loss) per share. Diluted net loss per share reflects the potential dilution that could occur if securities or other contracts to issue common stock were exercised or

converted into common stock. Potentially dilutive securities are excluded from the computation of diluted net loss per share for all of the periods presented in the accompanying condensed consolidated statements of operations because the reported net loss in each of these periods results in their inclusion being antidilutive. Antidilutive securities, which consist of stock options, restricted stock units, warrants, and shares that could be issued upon conversion of the senior convertible notes, that are not included in the diluted net loss per share calculation consisted of an aggregate of 40,982,544 shares and 56,844,341 shares as of June 30, 2015 and 2014, respectively, and exclude the 9,000,000 shares loaned under the share lending arrangement.

12. Commitments and contingencies

Guarantees and Indemnifications **—** In the ordinary course of its business, the Company makes certain indemnities, commitments and guarantees under which it may be required to make payments in relation to certain transactions. The Company, as permitted under Delaware law and in accordance with its Bylaws, indemnifies its officers and directors for certain events or occurrences, subject to certain limits, while the officer or director is or was serving at the Company's request in such capacity. The term of the indemnification period is for the officer's or director's lifetime. The maximum amount of potential future indemnification is unlimited; however, the Company has a director and officer insurance policy that may enable it to recover a portion of any future amounts paid. The Company believes the fair value of these indemnification agreements is minimal. The Company has not recorded any liability for these indemnities in the accompanying condensed consolidated balance sheets. However, the Company accrues for losses for any known contingent liability, including those that may arise from indemnification provisions, when future payment is probable and the amount can be reasonably estimated.

Litigation **—** The Company is subject to legal proceedings and claims which arise in the ordinary course of its business. As of the date hereof, the Company believes that the final disposition of such matters will not have a material adverse effect on the financial position, results of operations or cash flows of the Company. The Company maintains liability insurance coverage to protect the Company's assets from losses arising out of or involving activities associated with ongoing and normal business operations. In accordance with ASC 450 *Contingencies*, the Company would record a provision for a liability when it is both probable that a liability has been incurred and the amount of the loss can be reasonably estimated.

Contingencies **—** In connection with the Facility Agreement, on July 1, 2013 the Company also entered into a Milestone Rights Purchase Agreement (the "Milestone Agreement") with Deerfield Private Design Fund and Horizon Santé FLML SÁRL (collectively, the "Milestone Purchasers"), pursuant to which the Company sold the Milestone Purchasers the Milestone Rights to receive payments up to $90.0 million upon the occurrence of specified strategic and sales milestones, including the first commercial sale of an AFREZZA product in the United States and the achievement of specified net sales figures (see Note 14 – Facility Agreement).

Commitments **—** On July 31, 2014, the Company entered into the Insulin Supply Agreement, (the "Insulin Supply Agreement"), with Amphastar France Pharmaceuticals S.A.S. ("Amphastar"), pursuant to which the Company agreed to purchase certain annual minimum quantities of insulin for an aggregate total purchase price of approximately €120.1 million for calendar years 2015 through 2019.

13. Income taxes

As required by ASC 740 *Income Taxes* ("ASC 740"), management of the Company has evaluated the positive and negative evidence bearing upon the realizability of its deferred tax assets and concluded, in accordance with the applicable accounting standards, that net deferred tax assets should be fully reserved.

ASC 740-10-25 *Income Taxes Recognition* clarifies the accounting and disclosure for uncertainty in tax positions, as defined. This guidance seeks to reduce the diversity in practice associated with certain aspects of the recognition and measurement related to accounting for income taxes. The Company believes that its income tax filing positions and deductions will be sustained on audit and does not anticipate any adjustments that will result in a material change to its financial position. Therefore, no reserves for uncertain income tax positions have been recorded pursuant to this guidance. Tax years since 1993 remain subject to examination by the major tax jurisdictions in which the Company is subject to tax.

14. Facility Agreement

As of June 30, 2015, there were $60.0 million principal amount of 2019 notes and $20.0 million principal amount of Tranche B notes outstanding. The 2019 notes accrue interest at annual rate of 9.75% and the Tranche B notes accrue interest at an annual rate of 8.75%. The Facility Agreement principal repayment schedule is comprised of annual payments beginning on July 1, 2016 and ending December 9, 2019. The repayment dates correspond to the dates on which the 2019 notes or Tranche B notes, as applicable, were issued.

In conjunction with the Facility Agreement, the Company entered into a Milestone Rights Agreement with Deerfield which requires the Company to make contingent payments to Deerfield, totaling up to $90.0 million, upon the Company achieving specified commercialization milestones.

The Milestone Rights were initially recorded as a short-term liability equal to $3.2 million included in accrued expenses and other current liabilities in the accompanying condensed consolidated balance sheet and a long-term liability equal to $13.1 million included in other liabilities. During the first quarter of 2015, the second milestone triggering event was achieved following the Company's product launch on February 3, 2015, which resulted in a $5.8 million incremental charge to interest expense due to the increase in carrying value of the liability to the required $10.0 million payment made in February of 2015. In the first quarter of 2015, the Company determined that it was probable that the first commercial sales related milestone would be achieved within the next twelve months. As of June 30, 2015, the short-term portion of the liability had a balance of $1.6 million and the long-term portion of the liability had a balance of $7.3 million.

Accretion of debt issuance cost and debt discount in connection with the Facility financing agreement during the three and six months ended June 30, 2015 and 2014 are as follows (in thousands):

	Three months ended June 30,		Six months ended June 30,	
	2015	2014	2015	2014
Accretion expense- debt issuance cost	$ 9	$ 27	$ 17	$ 309
Accretion expense – debt discount	$ 380	$ 516	$ 745	$ 6,883

The Facility Agreement contains a financial covenant that requires the Company's cash and cash equivalents, which include available borrowings under the Loan Arrangement, on the last day of each fiscal quarter to not be less than $25.0 million. If the Company fails to satisfy this financial covenant, or another event of default occurs under the Facility Agreement, Deerfield may declare all or any portion of the 2019 notes and/or Tranche B notes to be immediately due and payable.

15. Subsequent events

Issuance of new 5.75% Convertible Senior Subordinated Exchange Notes due 2018 in exchange for 2015 notes

On July 28, 2015, the Company entered into privately-negotiated exchange agreements (the "Note Exchange Agreements") with select holders of 2015 notes, pursuant to which the Company agreed to issue $27.7 million aggregate principal amount of new 5.75% Convertible Senior Subordinated Exchange Notes due 2018 (the "2018 notes") to such holders in exchange for the delivery to the Company of the same principal amount of 2015 notes. The 2018 notes were issued at the closing of the exchange on August 10, 2015.

The 2018 notes will be the Company's general, unsecured, senior obligations, except that the 2018 notes will be subordinated in right of payment to the outstanding notes issued pursuant to the Facility Agreement and the Company's borrowings under its secured loan facility with an affiliate of Sanofi-Aventis U.S. LLC. The 2018 notes will rank equally in right of payment with the Company's other unsecured senior debt, including any 2015 notes that remain outstanding after the completion of the exchange transactions. The 2018 notes will bear interest at the rate of 5.75% per year on the principal amount, payable semiannually in arrears in cash on February 15 and August 15 of each year, beginning February 15, 2016, with interest accruing from August 15, 2015. The 2018 notes will mature on August 15, 2018.

The 2018 notes will be convertible, at the option of the holder, at any time on or prior to the close of business on the business day immediately preceding the stated maturity date, into shares of the Company's common stock at a conversion rate of 147.0859 shares per $1,000 principal amount of 2018 notes, which is equal to a conversion price of approximately $6.80 per share, the same conversion price as that of the 2015 notes. The conversion rate is subject to adjustment under certain circumstances described in an indenture governing the 2018 notes dated August 10, 2015 with Wells Fargo, National Association (the "2018 Note Indenture"), including in connection with a make-whole fundamental change.

If certain fundamental changes occur, the Company will be obligated to pay a fundamental change make-whole premium on any 2018 notes converted in connection with such fundamental change by increasing the conversion rate on such 2018 notes. In such instances, the amount of the fundamental change make-whole premium will be based on the Company's common stock price and the effective date of the applicable fundamental change.

If the Company undergoes certain fundamental changes, except in certain circumstances, each holder of 2018 notes will have the option to require the Company to repurchase all or any portion of that holder's 2018 notes. The fundamental change repurchase price will be 100% of the principal amount of the 2018 notes to be repurchased plus accrued and unpaid interest, if any.

On or after the date that is one year following the original issue date of the 2018 notes, the Company will have the right to redeem for cash all or part of the 2018 notes if the last reported sale price of its common stock exceeds 130% of the conversion price then in effect for 20 or more trading days during the 30 consecutive trading day period ending on the trading day immediately prior to the date of the redemption notice. The redemption price will equal the sum of 100% of the principal amount of the 2018 notes to be redeemed, plus accrued and unpaid interest.

$27.7 million principal amount of 2018 notes were issued in exchange for the cancellation of the same principal amount of 2015 notes after June 30, 2015 but prior to the issuance of our quarterly report on Form 10-Q. As a result, in accordance with ASC 470 we reclassified $27.7 million principal amount of our 2015 notes that were outstanding as of June 30, 2015 from current liabilities to non-current liabilities.

Issuance of common stock in exchange for 2015 notes

On July 28, 2015 and August 3, 2015, the Company entered into separate, privately-negotiated exchange agreements (the "Stock-for-Note Exchange Agreements") with other select holders of the 2015 notes pursuant to which the Company agreed to issue shares of its common stock to such holders in exchange for the delivery to the Company of up to $61.8 million aggregate principal amount of 2015 notes.

Pursuant to the Stock-for-Note Exchange Agreements, the parties agreed to price the exchange transactions over a 10 trading day period spanning from July 29, 2015 to and including August 11, 2015 (each, an "Exchange Date"). Between July 28, 2015 and August 10, 2015, the Company issued an aggregate of 1.9 million shares of common stock to such holders in exchange for such holders' delivery to the Company of $8.0 million aggregate principal amount of 2015 notes, resulting in a weighted-average exchange price of $4.40 per share. As of August 10, 2015, $64.3 million aggregate principal amount of 2015 notes remained outstanding.

As a result in accordance with ASC 470, we reclassified $8.0 million of our 2015 notes that were outstanding as of the balance sheet date from current liabilities to non-current liabilities.

The Company offered and issued the foregoing shares of common stock and the 2018 notes in reliance on the exemption from registration provided by Section 4(a)(2) of the Securities Act of 1933, as amended.

Borrowings under Sanofi Loan Facility

On July 28, 2015, we borrowed $12.8 million under the Sanofi Loan Facility to finance the portion of our losses for the three months ended June 30, 2015 (see Note 7 — Collaboration arrangement).

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Statements in this report that are not strictly historical in nature are "forward-looking statements" within the meaning of the federal securities laws made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. In some cases, you can identify forward-looking statements by terms such as "anticipate," "believe," "could," "estimate," "expect," "goal," "intend," "may," "plan," "potential," "predict," "project," "should," "will," "would," and similar expressions intended to identify forward-looking statements, though not all forward-looking statements contain these identifying words. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth below in Part II, Item 1A Risk Factors and elsewhere in this quarterly report on Form 10-Q. The preceding interim condensed consolidated financial statements and this Management's Discussion and Analysis of Financial Condition and Results of Operations should be read in conjunction with the financial statements and related notes for the year ended December 31, 2014 and Management's Discussion and Analysis of Financial Condition and Results of Operations contained in the Annual Report. Readers are cautioned not to place undue reliance on forward-looking statements. The forward-looking statements speak only as of the date on which they are made, and we undertake no obligation to update such statements to reflect events that occur or circumstances that exist after the date on which they are made.

OVERVIEW

We are a biopharmaceutical company focused on the discovery and development of therapeutic products for diseases such as diabetes. Our only approved product, AFREZZA, is a rapid-acting inhaled insulin that was approved by the FDA on June 27, 2014 to improve glycemic control in adult patients with diabetes. Pursuant to the Sanofi License Agreement, all sales and marketing activities related to AFREZZA are conducted by Sanofi. AFREZZA became available by prescription in United States retail pharmacies in February 2015. In April 2015, the FDA approved a 12 unit cartridge strength of AFREZZA (insulin human) inhalation powder to improve glycemic control in adult patients with diabetes. We have initiated manufacturing the 12 unit cartridge strength of AFREZZA and expect it to be launched by Sanofi in the second half of 2015.

As of June 30, 2015, we had an accumulated deficit of $2.6 billion and a stockholders' deficit of $115.5 million. To date, we have funded our operations through the sale of equity securities and convertible debt securities, borrowings under the Facility Agreement, borrowings under the Loan Arrangement, and receipt of upfront and milestone payments under the Sanofi License Agreement and borrowings under the Sanofi Loan Facility to fund our portion of the loss share. As discussed below in "Liquidity and Capital Resources," if we are unable to obtain additional funding in the future, there could be substantial doubt about our ability to continue as a going concern.

Our business is subject to significant risks, including but not limited to our ability to support the commercialization of AFREZZA through our marketing partner, Sanofi, by manufacturing sufficient quantities of AFREZZA to meet Sanofi's demands in a timely and cost-efficient manner, Sanofi's ability to successfully market and sell AFREZZA, Sanofi's ability to obtain regulatory approval for AFREZZA outside of the United States, and the risks inherent in our ongoing clinical trials and the regulatory approval process. Additional significant risks also include the results of our research and development efforts, competition from other products and technologies and uncertainties associated with obtaining and enforcing patent rights.

RESEARCH AND DEVELOPMENT EXPENSES

Historically our research and development expenses have consisted mainly of costs associated with research and development of our product candidates, including associated clinical trials, and manufacturing process development. This includes the salaries, benefits and stock-based compensation of research and development personnel, raw materials, such as insulin purchases, laboratory supplies and materials, facility costs, costs for consultants and related contract research, licensing fees, and depreciation of equipment. We track research and development costs by the type of cost incurred. We partially offset research and development expenses with the recognition of estimated amounts receivable from the State of Connecticut pursuant to a program under which we can exchange qualified research and development income tax credits for cash.

Our research and development staff conducts our internal research and development activities, which include research, product development, clinical development, manufacturing process development and related activities. This staff is located in our facilities in Valencia, California and Danbury, Connecticut. We expense research and development costs as we incur them.

GENERAL AND ADMINISTRATIVE EXPENSES

Our general and administrative expenses are driven by salaries, benefits and stock-based compensation for administrative, finance, business development, human resources, legal and information systems support personnel. In addition, general and administrative expenses include professional service fees and business insurance costs.

PRODUCT MANUFACTURING EXPENSES

Our product manufacturing expenses are the costs in connection with producing commercial and clinical supplies of AFREZZA. As of June 30, 2015, we recorded $10.8 million as deferred product costs associated with the deferred product sales from collaboration. Product manufacturing expenses were $5.7 million and $7.6 million for the three and six months ended June 30, 2015, respectively, due to product manufacturing costs associated with AFREZZA product sales, which cannot be capitalized. Product manufacturing expenses represent under absorbed labor and overhead, which are expensed in the period in which they are incurred rather than as a portion of the inventory cost.

CRITICAL ACCOUNTING POLICIES

The preparation of our condensed consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements and the notes to the financial statements. Some of those judgments can be subjective and complex, and therefore, actual results could differ materially from those estimates under different assumptions or conditions. A summary of our critical accounting policies is presented in Item 7 of the Annual Report. We added deferred costs to our critical accounting policies during the six months ended June 30, 2015.

Deferred product costs from collaboration

We manufacture commercial supplies of AFREZZA product for Sanofi. Cost of product manufacturing includes costs in connection with producing commercial product for Sanofi. Deferred costs represent the costs of product manufactured and shipped to Sanofi, not to exceed the amount of deferred product sales related to the collaboration, for which recognition of revenue has been deferred. Given that the costs of inventory delivered to a customer, but for which revenue may not yet be recognized, meet both the definition and characteristics of an "asset" and management believes that it is probable that the amount of future revenue will exceed the amount of deferred costs (i.e., the asset would be realizable through the recognition of probable future income), we have elected to account for the deferred costs related to the product sold to Sanofi as an asset and carry forward to future periods until the related revenue is recognized.

Recently Issued Accounting Standards

In May 2014, a new standard was issued related to revenue recognition, which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. The guidance requires a company to recognize revenue to depict the transfer of goods or services to customers in an amount that reflects the consideration it expects to be entitled to receive in exchange for those goods or services. In July 2015, the FASB decided to delay the effective date of the new revenue standard by one year. The FASB also agreed to allow entities to choose to adopt the standard as of the original effective date. The standard is effective beginning the first quarter of our 2018 fiscal year and may be adopted either by restating all years presented in our financial statements or by recording the impact of adoption as an adjustment to retained earnings at the beginning of fiscal 2018. We are assessing the potential impact of the new standard on our consolidated statements of financial position and results of operations and comprehensive income (loss) and have not yet selected a transition method.

In August 2014, the FASB issued ASU 2014-15, which provides guidance on determining when and how reporting entities must disclose going-concern uncertainties in their financial statements. The new standard requires management to perform interim and annual assessments of an entity's ability to continue as a going concern within one year of the date of issuance of the entity's financial statements (or within one year after the date on which the financial statements are available to be issued, when applicable). Further, an entity must provide certain disclosures if there is "substantial doubt about the entity's ability to continue as a going concern." The ASU is effective for annual periods ending after December 15, 2016, and interim periods thereafter; early adoption is permitted. We are evaluating the impact the adoption of ASU 2014-15 will have on our consolidated financial statements.

In April 2015, the FASB issued ASU 2015-03, "Simplifying the Presentation of Debt Issuance Costs." The guidance requires debt issuance costs to be presented in the balance sheet as a direct deduction from the carrying value of the associated debt, consistent with the presentation of a debt discount. The guidance is effective for annual reporting periods beginning after December 15, 2015 and interim periods thereafter. Early adoption is permitted. We do not believe the adoption of the new standard will have a material impact on our consolidated financial statements and disclosures.

In July 2015, The FASB has issued Accounting Standards Update (ASU) No, 2015-11, Inventory (Topic 330): Simplifying the Measurement of Inventory. Topic 330, Inventory, currently requires an entity to measure inventory at the lower of cost or market. Market could be replacement cost, net realizable value, or net realizable value less an approximately normal profit margin. The amendments do not apply to inventory that is measured using last-in, first-out (LIFO) or the retail inventory method. The amendments apply to all other inventory, which includes inventory that is measured using first-in, first-out (FIFO) or average cost. The amendments are effective for fiscal years beginning after December 15, 2016, including interim periods within those fiscal years. The amendments should be applied prospectively with earlier application permitted as of the beginning of an interim or annual reporting period. We are evaluating the impact the adoption of ASU 2015-11 will have on our consolidated financial statements.

RESULTS OF OPERATIONS

Three and six months ended June 30, 2015 and 2014

Revenue

We did not recognize any revenue for the three and six months ended June 30, 2015 or 2014. However, for the three and six months ended June 30, 2015, we had $5.9 million and $13.0 million, respectively, in AFREZZA product sales to Sanofi, which were recorded as deferred product sales from collaboration as the criteria for revenue recognition had not been met.

Research and Development Expenses

The following table provides a comparison of the research and development expense categories for the three and six months ended June 30, 2015 and 2014 (dollars in thousands):

	Three months ended June 30,			
	2015	2014	$ Change	% Change
Clinical	$2,134	$ 6,736	$ (4,602)	(68%)
Manufacturing process development	3,951	11,102	(7,151)	(64%)
Research	1,190	1,769	(579)	(33%)
Research and development tax credit	(88)	(83)	(5)	6%
Stock-based compensation expense	550	17,799	(17,249)	(97%)
Research and development expenses	$7,737	$37,323	$(29,586)	(79%)

	Six months ended June 30,			
	2015	2014	$ Change	% Change
Clinical	$ 5,960	$15,915	$ (9,955)	(63%)
Manufacturing process development	7,357	21,850	(14,493)	(66%)
Research	2,593	3,259	(666)	(20%)
Research and development tax credit	(176)	(166)	(10)	6%
Stock-based compensation expense	1,381	22,648	(21,267)	(94%)
Research and development expenses	$17,115	$63,506	$(46,391)	(73%)

The decrease in research and development expenses for the three months ended June 30, 2015 compared to the three months ended June 30, 2014 was primarily due to a decrease of $17.2 million in stock-based compensation expense resulting from the non-recurring 2014 modification of the settlement terms, or the Modification, for certain performance-based restricted stock units and the achievement of performance-based grants in 2014 and the first quarter of 2015. The Modification resulted in the reclassification of these performance grants from equity awards to liability awards, which required re-measurement on the modification date and resulted in incremental stock-based compensation expense. Further, the reductions in research and development expenses were due to the shift to commercial production of AFREZZA, as well as a decrease in clinical expenses of $2.3 million upon the completion of the affinity trials in 2014 and the resulting reduction in expenses associated with clinical staff and contract labor of $2.3 million.

The decrease in research and development expenses of $46.4 million for the six months ended June 30, 2015 compared to the six months ended June 30, 2014 was primarily due to a decrease of $21.3 million in stock-based compensation expense resulting from the non-recurring Modification and the achievement of performance-based grants in 2014 and the first quarter of 2015. Further, the reductions in research and development expenses were due to a $14.5 million decrease in manufacturing process development due to the shift to commercial production of AFREZZA, as well as a decrease in clinical expenses of $6.8 million upon the completion of the affinity trials and the resulting reduction in expenses associated with clinical staff and contract labor of $3.2 million.

We anticipate that our overall research and development expenses will decrease in the second half of 2015 compared to the second half of 2014 as a result of manufacturing costs associated with the production of AFREZZA being attributed to product manufacturing expenses rather than research and development expenses.

General and Administrative Expenses

The following table provides a comparison of the general and administrative expense categories for the three and six months ended June 30, 2015 and 2014 (dollars in thousands):

	Three months ended June 30,			
	2015	2014	$ Change	% Change
Salaries and employee related expenses	$ 4,888	$ 4,602	$ 286	6%
Professional fees and other general expenses	4,510	5,076	(566)	(11%)
Stock-based compensation expense	1,225	22,845	(21,620)	(95%)
General and administrative expenses	$10,623	$32,523	$(21,900)	(67%)

	Six months ended June 30,			
	2015	2014	$ Change	% Change
Salaries and employee related expenses	$ 8,372	$ 8,669	$ (297)	(3%)
Professional fees and other general expenses	10,333	10,149	184	2%
Stock-based compensation expense	2,397	28,934	(26,537)	(92%)
General and administrative expenses	$21,102	$47,752	$(26,650)	(56%)

General and administrative expenses for the three and six months ended June 30, 2015 decreased compared to the three and six months ended June 30, 2014, primarily due to a decrease in stock-based compensation expense of $21.6 million and $26.5 million, respectively, resulting from the Modification and achievement of performance-based grants in 2014 and the first quarter of 2015.

We expect general and administrative expenses for the full year to decrease in the second half of 2015 as compared to the second half of 2014 due to reduced professional fees and stock-based compensation expense.

Product Manufacturing Expenses

Product manufacturing expenses were $5.7 million and $7.6 million for the three and six months ended June 30, 2015, respectively, due to product manufacturing costs associated with AFREZZA product sales, which cannot be capitalized. We had no product manufacturing expense for the three or six months ended June 30, 2014, as pre-commercial manufacturing costs associated with AFREZZA were accounted for as research and development expenses. Product manufacturing expenses represent under absorbed labor and overhead, which are expensed in the period in which they are incurred rather than as a portion of the inventory cost.

Other Income (Expense)

Other income for the six months ended June 30, 2015 of $1.4 million was primarily attributable to the relief of an accrual for potential expenses associated with the sale of intellectual property related to oncology in 2014, which was subsequently resolved without payment in the first quarter of 2015. Other expense of $6.3 million for the six months ended June 30, 2014 was primarily due to a non-cash charge recognized upon the conversion of 2019 notes into equity.

Interest Income and Expense

Interest expense increased by $1.7 million for the three months ended June 30, 2015 compared to the three months ended June 30, 2014 and by $7.3 million for the six months ended June 30, 2015 compared to the six months ended June 30, 2014. The increase for the three months ended June 30, 2015 was due to incremental interest expense associated with the Tranche 4 notes, due to timing of the issuance, and incremental interest related to the Sanofi Loan Facility. The increase for the six months ended June 30, 2015 was due to an incremental interest expense related to Tranche 4 notes, incremental interest related to the Sanofi Loan Facility and interest expense of $5.8 million resulting from the achievement and re-measurement of the second milestone under the Milestone Agreement in the first quarter of 2015.

LIQUIDITY AND CAPITAL RESOURCES

To date, we have funded our operations through the sale of equity securities and convertible debt securities, borrowings under the Loan Arrangement with The Mann Group, borrowings under the Facility Agreement with Deerfield, and receipt of upfront, milestone payments under the Sanofi License Agreement, and borrowings under the Sanofi Loan Facility.

As of June 30, 2015, we had $244.9 million principal amount of outstanding debt, consisting of:

- $100.0 million principal amount of 2015 notes bearing interest at 5.75% per annum and maturing on August 15, 2015;
- $60.0 million principal amount of 2019 notes bearing interest at 9.75% per annum, $5.0 million of which is due and payable in July 2016, $15.0 million of which is due and payable in July 2017, $15.0 million of which is due and payable in July 2018 and $25.0 million of which is due and payable in July and December 2019;
- $20.0 million principal amount of Tranche B notes bearing interest at 8.75% per annum, $5.0 million of which is due and payable in each of May 2017, 2018 and 2019, the balance of which is due and payable in December 2019;
- $49.5 million principal amount of indebtedness under the Loan Arrangement bearing interest at 5.84% and maturing and due on January 5, 2020; and
- $15.4 million principal amount borrowed under the Sanofi Loan Facility to fund our share of net losses under the Sanofi License Agreement.

As of August 10, 2015, we exchanged shares of our common stock for $8.0 million aggregate principal amount of 2015 notes and $27.7 million aggregate principal amount of 2018 notes for 2015 notes. For additional information, see “Note 15 – Subsequent events” contained in the notes to condensed consolidated financial statements in this report. There can be no assurance that we will complete any additional stock-for-note or other exchange transactions with respect to the remaining outstanding 2015 notes prior to their maturity date of August 15, 2015.

As of June 30, 2015, the amount available for future borrowings under the Loan Arrangement was $30.1 million. We anticipate using a portion of these available borrowings to capitalize accrued interest into principal, upon mutual agreement of the parties, as it becomes due and payable under the Loan Arrangement. As of June 30, 2015 the accrued interest under the Loan arrangement was $4.2 million.

Subsequent to June 30, 2015, we borrowed an additional $12.8 million under the Sanofi Loan Facility to finance our share of the net losses for the second quarter of 2015, which was reclassified from current deferred payments from collaboration to Sanofi loan facility and loss share obligation, for a total of $28.4 million, which includes $0.2 million in paid-in-kind interest. We will be required to make mandatory prepayments on any outstanding loans under the Sanofi Loan Facility from our share of any profits under the Sanofi License Agreement.

In connection with the execution of the Facility Agreement, on July 1, 2013 we issued Milestone Rights to the Milestone Purchasers. The Milestone Rights provide the Milestone Purchasers certain rights to receive payments of up to $90.0 million upon the occurrence of specified strategic and sales milestones, including the first commercial sale of an AFREZZA product and the achievement of specified net sales figures.

In the first quarter of 2015, the second milestone triggering event was achieved following our product launch on February 3, 2015. In connection with the milestone triggering event, we paid a $10.0 million payment to Deerfield pursuant to the terms of the Milestone Agreement in the first quarter of 2015.

In March 2014, we entered into an At-The-Market Issuance Sales Agreement with MLV & Co. LLC (“MLV”) and an At-The-Market Issuance Sales Agreement with Meyers Associates, L.P. (doing business as Brinson Patrick, a division of Meyers Associates, L.P.) (“Brinson Patrick”). We refer to the foregoing agreements as the “ATM Agreements.” Under each ATM Agreement, we may issue or sell shares of our common stock having an aggregate offering price of up to $50.0 million from time to time through MLV or Brinson Patrick, as our sales agents, provided in no event may we sell more than $50.0 million of common stock under both agreements in the aggregate, and provided no sales may be made except pursuant to an effective registration statement. The registration statement under which the shares that may be sold pursuant to the ATM Agreements are registered will expire on August 31, 2015. During the three months ended June 30, 2015, we raised gross proceeds of $2.1 million from the sale of 289,197 shares of common stock under the ATM Agreements, resulting in net proceeds of $2.0 million after issuance costs. There were no issuances under the ATM Agreement prior to the second quarter of 2015.

On August 11, 2014, we and Sanofi executed the Sanofi License Agreement, which subsequently became effective on September 23, 2014. Pursuant to the Sanofi License Agreement, we received a $150.0 million upfront payment and subsequent milestone payments of $50.0 million upon satisfaction of certain manufacturing milestones specified in the Sanofi License Agreement. We are eligible to earn up to $725.0 million in further development, regulatory and sales milestones, and are also eligible to receive a share of profits on sales of AFREZZA. Worldwide profits and losses will be shared 65% by Sanofi and 35% by us. Pursuant to a separate supply agreement, we will manufacture AFREZZA at our manufacturing facility in Danbury, Connecticut to supply Sanofi’s demand for AFREZZA.

Pursuant to the Insulin Supply Agreement with Amphastar, we have agreed to purchase annual minimum quantities of insulin under the Insulin Supply Agreement of an aggregate total of approximately €120.1 million in calendar years 2015 through 2019.

During the six months ended June 30, 2015, our operations used $14.8 million of cash and we had a net loss of $59.6 million, which included $10.4 million of non-cash charges consisting of depreciation and accretion, and stock-based compensation. For the six months ended June 30, 2014, we used $60.4 million of cash for our operations and had a net loss of $125.4 million, which included $64.2 million of non-cash charges consisting of depreciation and accretion, and stock-based compensation. The operating cash flow increased by $45.6 million primarily due to the receipt of a $50.0 million milestone payment from Sanofi, earned as of December 31, 2014, offset by $5.8 million interest expense associated with the achievement and payment of the second milestone to Deerfield for product launch on February 3, 2015 and decreases in accrued expenses primarily due to a $4.9 million inventory payment to Amphastar and the remaining decrease was related to interest payments for the 2015 notes. During the six months ended June 30, 2014, operating cash flow increased by $1.4 million primarily due to a decrease in accrued interest associated with our Loan Arrangement with The Mann Group partially offset by increases in accrued interest related to other financing arrangements. We generally expect our operating cash flow to be negative at least until we achieve profitability with AFREZZA.

We used $8.7 million of cash for investing activities during the six months ended June 30, 2015, compared to $9.7 million of cash used for the six months ended June 30, 2014. The increase was due to purchases of additional machinery and equipment for the commercialization of AFREZZA in 2015 compared to 2014.

Our financing activities provided $9.9 million of cash for the six months ended June 30, 2015, compared to $40.5 million for the six months ended June 30, 2014. For the six months ended June 30, 2015, cash provided by financing activities was $12.8 million provided from the exercises of stock options and warrants and $2.1 million provided from at the market sales of stock. This was offset by a $4.2 million outflow associated with the achievement and payment of the second milestone to Deerfield for product launch on February 3, 2015 and $0.8 million for the payment of employment taxes related to vested restricted stock units. For the six months ended June 30, 2014, cash provided by financing activities was comprised of $20.0 million from the sale of Tranche B notes to Deerfield, $14.1 million from warrant exercises, and $6.5 million from the exercise of stock options.

As of June 30, 2015, we had $107.2 million in cash and cash equivalents. We expect to continue to incur significant expenditures to support commercial manufacturing of AFREZZA and the development of other product candidates. In addition, as of August 10, 2015, an aggregate principal amount of $64.3 million in 2015 notes remained outstanding with a maturity date of August 15, 2015, subsequent to exchanges pursuant to the privately-negotiated exchange agreements with select holders of 2015 notes, and payment on the outstanding amount is due in full, if not previously converted into or exchanged for common shares, on that date. Unless the holders of the remaining outstanding 2015 notes or the holders of the new 2015 notes elect to convert such notes into our common stock prior to their due date, we intend to settle the unconverted notes with either available cash or raise additional funds, whether through the sale of equity or debt securities, additional strategic business collaborations, the establishment of other funding facilities, licensing arrangements, asset sales or other means. However, we cannot provide assurances that such additional capital, if needed, will be available through these or other means.

We intend to use our capital resources to support the commercialization of AFREZZA. We are expending a portion of our capital resources to scale up our manufacturing and development activity capabilities in our Danbury facilities and to develop our other product candidates. We also intend to use our capital resources for general corporate purposes.

If we enter into strategic business collaborations with respect to our other product candidates, we would expect, as part of the transaction, to receive additional capital. In addition, we may in the future pursue the sale of equity and/or debt securities or seek to establish other funding facilities to fund our operations. Issuances of debt or additional equity could impact the rights of our existing stockholders, dilute the ownership percentages of our existing stockholders and may impose restrictions on our operations. These restrictions could include limitations on additional borrowing, specific restrictions on the use of our assets as well as prohibitions on our ability to create liens, pay dividends, redeem our stock or make investments. We also may seek to raise additional capital by pursuing opportunities for the licensing, sale or divestiture of certain intellectual property and other assets, including our Technosphere technology platform. There can be no assurance, however, that any strategic collaboration, sale of securities or sale or license of assets will be available to us on a timely basis or on acceptable terms, if at all. If we are unable to raise additional capital, we may be required to enter into agreements with third parties to develop or commercialize products or technologies that we otherwise would have sought to develop independently, and any such agreements may not be on terms as commercially favorable to us.

We cannot provide assurances that our plans will not change or that changed circumstances will not result in the depletion of our capital resources more rapidly than we currently anticipate. If planned operating results are not achieved or we are not successful in raising additional capital, if needed, through equity or debt financing or entering business collaborations, we may be required to reduce expenses through the delay, reduction or curtailment of our projects, or further reduction of costs for facilities and administration, and there could be substantial doubt about our ability to continue as a going concern.

Off-Balance Sheet Arrangements

As of June 30, 2015, we did not have any off-balance sheet arrangements.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate Risk

Due to the fixed interest rates of our debt, we currently do not have an exposure to changes in our interest expense as a result of changes in interest rates. The interest rate on amounts borrowed under our Loan Arrangement with The Mann Group for the six months ended June 30, 2015 was a fixed rate equal to 5.84%. As of June 30, 2015, the total principal amount outstanding under the Loan Arrangement was $49.5 million. As of June 30, 2015, we also had debt related to the 2015 notes at a fixed interest rate of 5.75%, debt related to the 2019 notes at a fixed interest rate of 9.75%, and debt related to the Tranche B notes at a fixed interest rate of 8.75%.

Our current policy requires us to maintain a highly liquid short-term investment portfolio consisting mainly of U.S. money market funds and investment-grade corporate, government and municipal debt. None of these investments are entered into for trading purposes. Our cash is deposited in and invested through highly rated financial institutions in North America.

If a change in interest rates equal to 10% of the interest rates on June 30, 2015 were to have occurred, this change would not have had a material effect on the value of our short-term investment portfolio.

Foreign Currency Exchange Risk

We incur and will continue to incur significant expenditures for insulin supply obligation under our supply agreement with Amphastar. Such obligations are denominated in the euros. At the end of each reporting period, these liabilities are converted to U.S. dollars at the then-applicable foreign exchange rate. As a result, our business is affected by fluctuations in exchange rates between the U.S. dollar and foreign currencies. We have not entered into foreign currency hedging transactions to mitigate our exposure to foreign currency exchange risks, but may enter into foreign currency hedging transactions in the future. Exchange rate fluctuations may adversely affect our expenses, results of operations, financial position and cash flows. During the six months ended June 30, 2015, we were required to purchase the minimum quarterly supply purchases of insulin contemplated under our supply agreement with Amphastar, and if a change in the U.S. dollar to euro exchange rate equal to 10% of the U.S. dollar to euro exchange rate on June 30, 2015 were to have occurred on June 30, 2015, this change would not have had a material effect on our results of operations or financial condition.

ITEM 4. CONTROLS AND PROCEDURES

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act, as of June 30, 2015. The term “disclosure controls and procedures,” as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company’s management, including its principal executive and principal financial officers, as appropriate, to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of June 30, 2015, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at a reasonable assurance level.

Management determined that, as of June 30, 2015, there were no changes in our internal control over financial reporting that occurred during the fiscal quarter then ended that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

None.

Item 1A. *Risk Factors*

You should consider carefully the following information about the risks described below, together with the other information contained in this quarterly report on Form 10-Q before you decide to buy or maintain an investment in our common stock. We believe the risks described below are the risks that are material to us as of the date of this quarterly report. Additional risks and uncertainties that we are unaware of may also become important factors that affect us. The risk factors set forth below with an asterisk (*) next to the title contain changes to the description of the risk factors previously disclosed in Item 1A to our Annual Report. If any of the following risks actually occur, our business, financial condition, results of operations and future growth prospects would likely be materially and adversely affected. In these circumstances, the market price of our common stock could decline, and you may lose all or part of the money you paid to buy our common stock.

RISKS RELATED TO OUR BUSINESS

We depend heavily on the successful commercialization of our only approved product, AFREZZA.

We have expended significant time, money and effort in the development of our only approved product, AFREZZA. We anticipate that in the near term, our ability to generate revenues will depend on the successful commercialization of AFREZZA. On August 11, 2014, we executed the Sanofi License Agreement, which became effective on September 23, 2014. Pursuant to the Sanofi License Agreement, Sanofi is responsible for global commercial, regulatory and development activities for AFREZZA and we are responsible for manufacturing AFREZZA at our facility in Danbury, Connecticut to supply Sanofi's demand for the product. On February 3, 2015, we and Sanofi announced that AFREZZA had become available by prescription in United States retail pharmacies. We and Sanofi must receive the necessary approvals from foreign regulatory agencies before AFREZZA can be marketed outside of the United States.

Even with such regulatory approval, we and Sanofi, ultimately may be unable to gain market acceptance of AFREZZA for a variety of reasons, including the treatment and dosage regimen, potential adverse effects, the availability of alternative treatments and lack of coverage or adequate reimbursement. If we fail to commercialize AFREZZA successfully, our business, financial condition and results of operations will be materially and adversely affected.

We have sought to develop our other product candidates through our internal research programs. All of our product candidates will require additional research and development and, in some cases, significant preclinical, clinical and other testing prior to seeking regulatory approval to market them. Accordingly, these product candidates will not be commercially available for a number of years, if at all.

A significant portion of the research that we have conducted involves new technologies, including our Technosphere platform technology. Even if our research programs identify product candidates that initially show promise, these candidates may fail to progress to clinical development for any number of reasons, including discovery upon further research that these candidates have adverse effects or other characteristics that indicate they are unlikely to be effective. In addition, the clinical results we obtain at one stage are not necessarily indicative of future testing results. If we fail to develop and commercialize our other product candidates, or if we are significantly delayed in doing so, our business, financial condition and results of operations will be harmed and the market price of our common stock and other securities could decline.

We are dependent on our collaboration with Sanofi to further develop and to commercialize AFREZZA worldwide. This collaboration places the development and commercialization largely outside our control, and poor performance under or failure to maintain the collaboration agreement between us and Sanofi could have a material and adverse impact on our business, financial condition and results of operations and the market price of our common stock and other securities could decline.

We entered into the Sanofi License Agreement to provide for the future development and commercialization of AFREZZA. We cannot be certain that our collaboration with Sanofi will continue for as long as there is a potential market for AFREZZA. Both we and Sanofi have certain rights to terminate the collaboration agreement, in certain circumstances, including a right by Sanofi to terminate the agreement upon specified prior written notice. If the agreement is terminated prior to the end of the commercial life of AFREZZA, we may not be able to find another collaborator for the development and commercialization of AFREZZA, and even if we elected to pursue further development and commercialization of AFREZZA on our own, we might not be able to do so successfully and would experience substantially increased capital requirements that we might not be able to fund. Our dependence on Sanofi and the Sanofi License Agreement subjects us to a number of risks, including:

- Sanofi may not perform as expected and we may not be able to control the amount and timing of resources that Sanofi may devote to the development or commercialization of AFREZZA; moreover, Sanofi may elect to prioritize its other insulin products over AFREZZA;
- we and Sanofi could disagree as to commercialization and development plans and Sanofi may fail to initiate clinical trials, delay clinical trials or stop a clinical trial;
- there may be disputes between us and Sanofi, including disagreements regarding the Sanofi License Agreement, that may result in (a) the delay of (or prevent entirely) the achievement of regulatory and commercial objectives that would result in milestone payments, (b) the delay or termination of the development or commercialization of AFREZZA, and/or (c) costly litigation or arbitration that diverts our management's attention and resources;
- Sanofi may not comply with applicable regulatory guidelines with respect to the development or commercialization of AFREZZA, which could adversely impact the development of or sales of AFREZZA and could result in administrative or judicially imposed sanctions, including warning letters, civil and criminal penalties, injunctions, product seizures or detention, product recalls, total or partial suspension of production and refusal to approve any new drug applications;
- Sanofi may not provide us with timely and accurate information regarding sales activities and supply forecasts, which could adversely impact our ability to comply with our manufacturing and supply obligations under our supply agreement with Sanofi and our and Sanofi's ability to commercialize AFREZZA;
- Sanofi may experience financial difficulties;
- business combinations or significant changes in Sanofi's business strategy may also adversely affect Sanofi's ability to perform its obligations under the Sanofi License Agreement;
- Sanofi may not properly maintain or defend our intellectual property rights or may use our proprietary information in such a way as to invite litigation that could jeopardize or invalidate our proprietary information or expose us to potential litigation; and
- notwithstanding the non-competition requirements in the Sanofi License Agreement, Sanofi could independently move forward with a competing product candidate developed either independently or in collaboration with others, including our competitors.

Any failure of Sanofi to adequately perform its obligations under the Sanofi License Agreement or the termination of such agreement could have a material and adverse impact on our business, financial condition and results of operations and the market price of our common stock and other securities could decline.

We have a history of operating losses, we expect to incur losses in the future and we may not generate positive cash flow from operations in the future.*

We have never been profitable or generated positive cash flow from cumulative operations to date. Historically, we have reported negative cash flow from operations other than for the nine months ended September 30, 2014, for the year ended December 31, 2014, and for the three months ended March 31, 2015 as a result of our receipt of the upfront payment and milestone payments. As of June 30, 2015, we had an accumulated deficit of $2.6 billion. The accumulated deficit has resulted principally from costs incurred in our research and development programs, the write-off of goodwill and general operating expenses. We expect to make substantial expenditures and to incur increasing operating losses in the future in order to support the commercialization of AFREZZA, including costs and expenses to manufacture AFREZZA on a commercial scale. In addition, we have agreed to purchase annual minimum quantities of insulin under the Insulin Supply Agreement with Amphastar in the aggregate of approximately €120.1 million in calendar years 2015 through 2019. We may not have the necessary capital resources on hand in order to service this contractual commitment, and we may become obligated to make additional payments under the Insulin Supply Agreement in the event of its termination under certain scenarios. Our cumulative net loss may therefore increase significantly.

To date, we have received cash payments from Sanofi but have deferred revenue recognition of such payments. We will continue to defer revenue recognition of future milestone payments and payments from product sales as and to the extent appropriate under applicable revenue recognition rules. Accordingly, even if we continue to earn and receive milestone payments, revenue recognition may continue to be deferred and our cumulative net loss may therefore be higher than it would be if we recognized the full amount of the milestone payments upon receipt.

Our losses have had, and are expected to continue to have, an adverse impact on our working capital, total assets and stockholders' equity. As of June 30, 2015, we had stockholders' deficit of $115.5 million. Our ability to achieve and sustain positive cash flow from operations and profitability depends heavily upon successfully commercializing AFREZZA in collaboration with Sanofi, and we cannot be sure when we will generate positive cash flow from operations or become profitable, if at all.

In the future we may need to raise additional capital to fund our operations.*

In the future, we may need to raise additional capital, whether through the sale of equity or debt securities, additional strategic business collaborations, the establishment of other funding facilities, licensing arrangements, asset sales or other means, in order to support our ongoing activities related to the commercialization of AFREZZA and the development of other product candidates. It may be difficult for us to raise additional funds when and to the extent required or on favorable terms, or at all. As of June 30, 2015, we had stockholders' deficit of $115.5 million, which may raise concerns about our solvency and affect our ability to raise additional capital. The extent of our additional funding requirements will depend on a number of factors, including:

- the demand by any or all of the holders of the 2015 notes, 2018 notes, 2019 notes, and Tranche B notes to require us to repay or repurchase such debt securities if and when required;
- our ability to repay or refinance existing indebtedness, including indebtedness under the 2015 notes which mature on August 15, 2015, and the extent to which the 2015 notes, 2018 notes or any other convertible debt securities we may issue are converted into or exchanged for shares of our common stock;
- the rate of progress and costs of our clinical studies and research and development activities;
- the costs of procuring raw materials and operating our manufacturing facilities;
- our obligation to make milestone payments pursuant to the Milestone Agreement;
- our obligation to bear our share of net losses under the Sanofi License Agreement;
- our success in establishing strategic business collaborations or other sales or licensing of assets, and the timing and amount of any payments we might receive from any such transactions;
- the degree of success in commercializing AFREZZA;
- actions taken by the FDA and other regulatory authorities affecting AFREZZA and our product candidates and competitive products;
- the emergence of competing technologies and products and other market developments;
- the costs of preparing, filing, prosecuting, maintaining and enforcing patent claims and other intellectual property rights or defending against claims of infringement by others;
- the level of our legal and litigation expenses; and
- the costs of discontinuing projects and technologies, and/or decommissioning existing facilities, if we undertake any such activities.

We have raised capital in the past through the sale of equity and debt securities and we may in the future pursue the sale of additional equity and/or debt securities, including sales of our common stock through our at-the-market sales agreements, or the establishment of other funding facilities including asset-based borrowings. There can be no assurances, however, that we will be able to raise additional capital on acceptable terms, or at all. Issuances of additional debt or equity securities or the conversion of any of our currently outstanding convertible debt securities into shares of our common stock or the exercise of our currently outstanding warrants for shares of our common stock could impact the rights of the holders of our common stock and may dilute their ownership percentage. Moreover, the establishment of other funding facilities may impose restrictions on our operations. These restrictions could include limitations on additional borrowing and specific restrictions on the use of our assets, as well as prohibitions on our ability to create liens, pay dividends, redeem our stock or make investments. We also may seek to raise additional capital by pursuing opportunities for the licensing or sale of certain intellectual property and other assets. We cannot offer assurances, however, that any strategic collaborations, sales of securities or sales or licenses of assets will be available to us on a timely basis or on acceptable terms, if at all.

We may be required to enter into relationships with third parties to develop or commercialize products or technologies that we otherwise would have sought to develop independently, and any such relationships may not be on terms as commercially favorable to us as might otherwise be the case.

In the event that sufficient additional funds are not obtained through strategic collaboration opportunities, sales of securities, funding facilities, licensing arrangements and/or asset sales on a timely basis, we may be required to reduce expenses through the delay, reduction or curtailment of our projects, or further reduction of costs for facilities and administration. As of the date hereof, we have not obtained a solvency opinion or otherwise conducted a valuation of our properties to determine whether our debts exceed the fair value of our property within the meaning of applicable solvency laws. If we are or become insolvent, holders of our common stock or other securities may lose the entire value of their investment.

We cannot provide assurances that changed or unexpected circumstances, including, among other things, delays in manufacturing AFREZZA on a commercial scale, will not result in the depletion of our capital resources more rapidly than we currently anticipate, in which case we may be required to raise additional capital. There can be no assurances that we will be able to raise additional capital, if needed, on favorable terms, or at all. If we need but cannot raise adequate additional capital in the future we will be required to reduce expenses through the delay, reduction or curtailment of our projects, or further reduction of costs for facilities and administration, and there could be substantial doubt about our ability to continue as a going concern.

We have a substantial amount of debt pursuant to the 2015 notes, 2018 notes, 2019 notes, Tranche B notes, and our loan arrangement with The Mann Group LLC, we may incur additional indebtedness under such loan arrangement as well as the Sanofi Loan Facility and we may be unable to make required payments of interest and principal as they become due.*

As of August 10, 2015, we had $249.9 million principal amount of outstanding debt, consisting of:

- $64.3 million principal amount of 2015 notes bearing interest at 5.75% per annum and maturing on August 15, 2015;
- $27.7 million principal amount of 2018 notes bearing interest at 5.75% per annum and maturing on August 15, 2018;
- $60.0 million principal amount of 2019 notes bearing interest at 9.75% per annum, $5.0 million of which is due and payable in July 2016, $15.0 million of which is due and payable in July 2017, $15.0 million of which is due and payable in July 2018 and $25.0 million of which is due and payable in July and December 2019;
- $20.0 million principal amount of Tranche B notes bearing interest at 8.75% per annum, $5.0 million of which is due and payable in each of May 2017, 2018 and 2019, the balance of which is due and payable in December 2019; and
- $49.5 million principal amount of indebtedness under the loan arrangement, dated as of October 2, 2007, between us and The Mann Group LLC (as amended, restated or otherwise modified as of the date hereof, the “Loan Arrangement”) bearing interest at 5.84% and maturing and due on January 5, 2020.
- $28.4 million principal amount borrowed under the Sanofi Loan Facility to fund our share of net losses under the Sanofi License Agreement.

We may borrow up to an aggregate $175.0 million pursuant to the Sanofi Loan Facility to fund our share of net losses under the Sanofi License Agreement and an additional $30.1 million under the Loan Arrangement. As of June 30, 2015, our total share of the net losses are $28.4 million, classified as Sanofi loan facility and loss share obligation, and such has been borrowed under the Sanofi Loan Facility as of August 10, 2015. There can be no assurance that we will have sufficient resources to make any required repayments of principal under the 2015 notes, 2018 notes, 2019 notes or Tranche B notes when required. Further, if we undergo a fundamental change, as that term is defined in the indentures governing the terms of the 2015 notes or 2018 notes, or certain Major Transactions as defined in the Facility Agreement in respect of the 2019 notes and the Tranche B notes, the holders of the respective debt securities will have the option to require us to repurchase all or any portion of such debt securities at a repurchase price of 100% of the principal amount of such debt securities to be repurchased plus accrued and unpaid interest, if any. The 2015 notes bear interest at the rate of 5.75% per year on the outstanding principal amount, payable in cash semiannually in arrears on February 15 and August 15 of each year and the 2018 notes bear interest at the rate of 5.75% per year on the outstanding principal amount, payable in cash semiannually in arrears on February 15 and August 15 of each year. The 2019 notes bear interest at the rate of 9.75% per year on the outstanding principal amount and the Tranche B notes bear interest at the rate of 8.75% on the outstanding principal amount, with accrued interest on each payable in cash quarterly in arrears on the last business day of March, June, September and December of each year. Loans under the Sanofi Loan Facility bear interest at a rate of 8.5% per annum, paid-in-kind on a quarterly basis (2.06% per quarter compounded). Loans under the Loan Arrangement accrue interest at a rate of 5.84% per annum, due and payable quarterly in arrears on the first day of each calendar quarter for the preceding quarter, or at such other time as we and The Mann Group LLC mutually agree. While we have been able to timely make our required interest payments to date, we cannot guarantee that we will be able to do so in the future.

If we fail to pay interest on the 2015 notes, 2018 notes, 2019 notes, Tranche B notes, or on the loans under the Sanofi Loan Facility, or if we fail to repay or repurchase the 2015 notes, 2018 notes, 2019 notes, Tranche B notes, or the loans under the Sanofi Loan Facility when required, we will be in default under the indenture or other applicable instrument for such debt securities or loans, and may also suffer an event of default under the terms of other borrowing arrangements that we may enter into from time to time. Any of these events could have a material adverse effect on our business, results of operations and financial condition, up to and including the note holders initiating bankruptcy proceedings or causing us to cease operations altogether.

The agreements governing our indebtedness contain covenants that we may not be able to meet and place restrictions on our operating and financial flexibility.*

Our obligations under the Facility Agreement, including any indebtedness under the 2019 notes and the Tranche B notes, and the Milestone Agreement are secured by substantially all of our assets, including our intellectual property, accounts receivables, equipment, general intangibles, inventory (excluding the insulin inventory) and investment property, and all of the proceeds and products of the foregoing. Our obligations under the Facility Agreement and the Milestone Agreement are also secured by a certain mortgage on our facility in Danbury, Connecticut. Our obligations under the Sanofi Loan Facility are secured by a first priority mortgage on our facility in Valencia, California, a first priority security interest in certain insulin inventory located in the United States and any contractual rights and obligations pursuant to which we purchase or have purchased such insulin, and a second priority security interest in our assets that secure our obligations under the Facility Agreement.

The Facility Agreement includes customary representations, warranties and covenants by us, including restrictions on our ability to incur additional indebtedness, grant certain liens, engage in certain mergers and acquisitions, make certain distributions and make certain voluntary prepayments. Events of default under the Facility Agreement include: our failure to timely make payments due under the 2019 notes or the Tranche B notes; inaccuracies in our representations and warranties to Deerfield; our failure to comply with any of our covenants under any of the Facility Agreement, Milestone Agreement or certain other related security agreements and documents entered into in connection with the Facility Agreement, subject to a cure period with respect to most covenants; our insolvency or the occurrence of certain bankruptcy-related events; certain judgments against us; the suspension, cancellation or revocation of governmental authorizations that are reasonably expected to have a material adverse effect on our business; the acceleration of a specified amount of our indebtedness; our cash and cash equivalents, including amounts available to us under the Loan Arrangement, falling below $25.0 million as of the last day of any fiscal quarter. If one or more events of default under the Facility Agreement occurs and continues beyond any applicable cure period, the holders of the 2019 notes and Tranche B notes may declare all or any portion of the 2019 notes and Tranche B notes to be immediately due and payable. The Milestone Agreement includes customary representations and warranties and covenants by us, including restrictions on transfers of intellectual property related to AFREZZA. The milestones are subject to acceleration in the event we transfer our intellectual property related to AFREZZA in violation of the terms of the Milestone Agreement.

Similarly, the Sanofi Loan Facility includes customary representations, warranties and covenants by us, including restrictions on our ability to incur additional indebtedness, grant certain liens and make certain changes to our organizational documents. Events of default under the Sanofi Loan Facility include: our failure to make timely payments due under the Sanofi Loan Facility; inaccuracies in our representations and warranties to the lender; our failure to comply with any of our covenants under any of the Sanofi Loan Facility or certain other related security agreements and documents entered into in connection with the Sanofi Loan Facility, subject to a cure period with respect to most covenants; our insolvency or the occurrence of certain bankruptcy-related events; termination by Sanofi of the Sanofi License Agreement as a result of our breach of the Sanofi License Agreement; and the failure of any material provision under any of the Sanofi Loan Facility or certain other related security agreements and documents entered into in connection with the Sanofi Loan Facility to remain in full force and effect. If one or more events of default occurs and is continuing, the lender may terminate its obligation to make advances under the Sanofi Loan Facility, and, if certain specified events of default (including our failure to timely make payments due under the Sanofi Loan Facility; our failure to comply with the negative covenants under the Sanofi Loan Facility limiting our ability to incur additional indebtedness or grant certain liens; our insolvency or the occurrence of certain bankruptcy-related events; termination by Sanofi of the Sanofi License Agreement as a result of our breach of the non-compete provisions of the Sanofi License Agreement; or the failure of any material provision under any of the Sanofi Loan Facility or certain other related security agreements and documents entered into in connection with the Sanofi Loan Facility to remain in full force and effect) occur and are continuing, the lender may accelerate all of our repayment obligations under the Sanofi Loan Facility and otherwise exercise any of its remedies as a secured creditor.

There can be no assurance that we will be able to comply with the covenants under any of the foregoing agreements, and we cannot predict whether the holders of the 2019 notes or Tranche B notes or the lender under the Sanofi Loan Facility would demand repayment of the outstanding balance of the 2019 notes, the Tranche B notes or the loans under the Sanofi Loan Facility as applicable or exercise any other remedies available to such holders if we were unable to comply with these covenants. The covenants and restrictions contained in the foregoing agreements could significantly limit our ability to respond to changes in our business or

competitive activities or take advantage of business opportunities that may create value for our stockholders and the holders of our other securities. In addition, our inability to meet or otherwise comply with the covenants under these agreements could have an adverse impact on our financial position and results of operations and could result in an event of default under the terms of our other indebtedness, including our indebtedness under the 2015 notes and the 2018 notes. In the event of certain future defaults under the foregoing agreements for which we are not able to obtain waivers, the holders of the 2015 notes, 2018 notes, 2019 notes and Tranche B notes and the lender under the Sanofi Loan Facility may accelerate all of our repayment obligations, and, with respect to the 2019 notes and Tranche B notes and the loans under the Sanofi Loan Facility, take control of our pledged assets, potentially requiring us to renegotiate the terms of our indebtedness on terms less favorable to us, or to immediately cease operations.

If we enter into additional debt arrangements, the terms of such additional arrangements could further restrict our operating and financial flexibility. In the event we must cease operations and liquidate our assets, the rights of any holders of our outstanding secured debt would be senior to the rights of the holders of our unsecured debt and our common stock to receive any proceeds from the liquidation.

If we do not achieve our projected development goals in the timeframes we announce and expect, our business, financial condition and results of operations will be harmed and the market price of our common stock and other securities could decline.

For planning purposes, we estimate the timing of the accomplishment of various scientific, clinical, regulatory and other product development goals, which we sometimes refer to as milestones. These milestones may include the commencement or completion of scientific studies and clinical studies and the submission of regulatory filings. From time to time, we publicly announce the expected timing of some of these milestones. All of these milestones are based on a variety of assumptions. The actual timing of the achievement of these milestones can vary dramatically from our estimates, in many cases for reasons beyond our control, depending on numerous factors, including:

- the rate of progress, costs and results of our clinical studies and preclinical research and development activities;
- our ability to identify and enroll patients who meet clinical study eligibility criteria;
- our ability to access sufficient, reliable and affordable supplies of components used in the manufacture of our product candidates;
- the costs of expanding and maintaining manufacturing operations, as necessary;
- the extent to which our clinical studies compete for clinical sites and eligible subjects with clinical studies sponsored by other companies; and
- actions by regulators.

In addition, if we do not obtain sufficient additional funds through sales of securities, strategic collaborations or the license or sale of certain of our assets on a timely basis, we may be required to reduce expenses by delaying, reducing or curtailing our development of product candidates. If we fail to commence or complete, or experience delays in or are forced to curtail, our proposed clinical programs or otherwise fail to adhere to our projected development goals in the timeframes we announce and expect (or within the timeframes expected by analysts or investors), our business, financial condition and results of operations will be harmed and the market price of our common stock and other securities may decline.

AFREZZA or our product candidates may be rendered obsolete by rapid technological change.

A number of established pharmaceutical companies have or are developing technologies for the treatment of unmet medical needs.

The rapid rate of scientific discoveries and technological changes could result in AFREZZA or one or more of our product candidates becoming obsolete or noncompetitive. Our competitors may develop or introduce new products that render our technology or AFREZZA less competitive, uneconomical or obsolete. Our future success will depend not only on our ability to develop our product candidates but to improve them and keep pace with emerging industry developments. We cannot assure you that we will be able to do so.

We also expect to face competition from universities and other non-profit research organizations. These institutions carry out a significant amount of research and development in various areas of unmet medical need. These institutions are becoming increasingly aware of the commercial value of their findings and are more active in seeking patent and other proprietary rights as well as licensing revenues.

Continued testing of AFREZZA or our product candidates may not yield successful results, and even if it does, we may still be unable to commercialize our product candidates.

Forecasts about the effects of the use of drugs, including AFREZZA, over terms longer than the clinical studies or in much larger populations may not be consistent with the earlier clinical results. For example, with the approval of AFREZZA, the FDA has required a five-year, randomized, controlled trial in 8,000 – 10,000 patients with type 2 diabetes, the primary objective of which is to compare the incidence of pulmonary malignancy observed with AFREZZA to that observed in a standard of care control group. If long-term use of a drug results in adverse health effects or reduced efficacy or both, the FDA or other regulatory agencies may terminate our or our marketing partner's ability to market and sell the drug, may narrow the approved indications for use or otherwise require restrictive product labeling or marketing, or may require further clinical studies, which may be time-consuming and expensive and may not produce favorable results.

Our research and development programs are designed to test the safety and efficacy of our product candidates through extensive nonclinical and clinical testing. We may experience numerous unforeseen events during, or as a result of, the testing process that could delay or impact commercialization of any of our product candidates, including the following:

- safety and efficacy results obtained in our nonclinical and early clinical testing may be inconclusive or may not be predictive of results that we may obtain in our future clinical studies or following long-term use, and we may as a result be forced to stop developing a product candidate or alter the marketing of an approved product;
- the analysis of data collected from clinical studies of our product candidates may not reach the statistical significance necessary, or otherwise be sufficient to support FDA or other regulatory approval for the claimed indications;
- after reviewing clinical data, we or any collaborators may abandon projects that we previously believed were promising; and
- our product candidates may not produce the desired effects or may result in adverse health effects or other characteristics that preclude regulatory approval or limit their commercial use once approved.

As a result of any of these events, we, any collaborator, the FDA, or any other regulatory authorities, may suspend or terminate clinical studies or marketing of the drug at any time. Any suspension or termination of our clinical studies or marketing activities may harm our business, financial condition and results of operations and the market price of our common stock and other securities may decline.

If our suppliers fail to deliver materials and services needed for the production of AFREZZA in a timely and sufficient manner, if they fail to comply with applicable regulations, or if we fail to identify and qualify alternative suppliers, our business, financial condition and results of operations would be harmed and the market price of our common stock and other securities could decline.

For the commercial manufacture of AFREZZA, we need access to sufficient, reliable and affordable supplies of insulin, our AFREZZA inhaler, the related cartridges and other materials. Currently, the only approved source of insulin for AFREZZA is manufactured by Amphastar. We must rely on our suppliers, including Amphastar, to comply with relevant regulatory and other legal requirements, including the production of insulin in accordance with the FDA's current Good Manufacturing Practices ("cGMPs") for drug products, and the production of the AFREZZA inhaler and related cartridges in accordance with Quality System Regulations ("QSRs"). The supply of any of these materials may be limited or any of the manufacturers may not meet relevant regulatory requirements, and if we are unable to obtain any of these materials in sufficient amounts, in a timely manner and at reasonable prices, or if we encounter delays or difficulties in our relationships with manufacturers or suppliers, the production of AFREZZA may be delayed. Likewise, if Amphastar ceases to manufacture or is otherwise unable to deliver insulin for AFREZZA, we will need to locate an alternative source of supply and the production of AFREZZA may be delayed. Pursuant to our supply agreement with Sanofi, we are required to identify alternative suppliers for all critical raw materials for the manufacture of AFREZZA within two years after the date of the agreement. However, there can be no assurance that we will be able to identify and qualify such suppliers within the time period required under the agreement. If any of our suppliers is unwilling or unable to meet its supply obligations and we are unable to secure an alternative supply source in a timely manner and on favorable terms, our business, financial condition, and results of operations may be harmed and the market price of our common stock and other securities may decline.

If we fail as an effective manufacturing organization or fail to engage third-party manufacturers with this capability, we may be unable to support commercialization of this product.*

We use our Danbury, Connecticut facility to formulate AFREZZA inhalation powder, fill plastic cartridges with the powder, package the cartridges in blister packs, and place the blister packs into foil pouches. We utilize a contract packager to assemble the final kits of foil-pouched blisters containing cartridges along with inhalers and the package insert. The manufacture of pharmaceutical products

requires significant expertise and capital investment, including the development of advanced manufacturing techniques and process controls. Manufacturers of pharmaceutical products often encounter difficulties in production, especially in scaling up initial production. These problems include difficulties with production costs and yields, quality control and assurance and shortages of qualified personnel, as well as compliance with strictly enforced federal, state and foreign regulations. If we engage a third-party manufacturer, we would need to transfer our technology to that third-party manufacturer and gain FDA approval, potentially causing delays in product delivery. In addition, our third-party manufacturer may not perform as agreed or may terminate its agreement with us.

Any of these factors could cause us to delay or suspend production, could entail higher costs and may result in our being unable to effectively support commercialization of AFREZZA. Furthermore, if we or a third-party manufacturer fail to deliver the required commercial quantities of the product or any raw material on a timely basis, and at commercially reasonable prices and acceptable quality, and we were unable to promptly find one or more replacement manufacturers capable of production at a substantially equivalent cost, in substantially equivalent volume and quality on a timely basis, we would likely be unable to meet demand for AFREZZA and we would lose potential revenues, and could result in the termination of the Sanofi License Agreement by Sanofi at its election if specified circumstances exist and certain conditions are met.

If AFREZZA or any other product that we develop does not become widely accepted by physicians, patients, third-party payors and the healthcare community, we may be unable to generate significant revenue, if any.*

AFREZZA and other products that we may develop in the future may not gain market acceptance among physicians, patients, third-party payors and the healthcare community. Failure to achieve market acceptance would limit our ability to generate revenue and would adversely affect our results of operations.

The degree of market acceptance of AFREZZA and other products that we may develop in the future will depend on many factors, including the:

- approved labeling claims;
- effectiveness of efforts by us or our marketing partner(s) to educate physicians about the benefits and advantages of AFREZZA or our other products and to provide adequate support for them, and the perceived advantages and disadvantages of competitive products;
- willingness of the healthcare community and patients to adopt new technologies;
- ability to manufacture the product in sufficient quantities with acceptable quality and cost;
- perception of patients and the healthcare community, including third-party payors, regarding the safety, efficacy and benefits compared to competing products or therapies;
- convenience and ease of administration relative to existing treatment methods;
- coverage and pricing and reimbursement relative to other treatment therapeutics and methods; and
- marketing and distribution support.

Because of these and other factors, AFREZZA and any other product that we get approved may not gain market acceptance, which would materially harm our business, financial condition and results of operations.

If third-party payors do not cover AFREZZA or any of our product candidates for which we receive regulatory approval, AFREZZA or such product candidates might not be prescribed, used or purchased, which would adversely affect our revenues.*

Our future revenues and ability to generate positive cash flow from operations may be affected by the continuing efforts of governments and third-party payors to contain or reduce the costs of healthcare through various means. For example, in certain foreign markets the pricing of prescription pharmaceuticals is subject to governmental control. In the United States, there has been, and we expect that there will continue to be, a number of federal and state proposals to implement similar governmental controls. We cannot be certain what legislative proposals will be adopted or what actions federal, state or private payors for healthcare goods and services may take in response to any drug pricing and reimbursement reform proposals or legislation. Such reforms may limit our ability to generate revenues from sales of AFREZZA or other products that we may develop in the future and achieve profitability. Further, to the extent that such reforms have a material adverse effect on the business, financial condition and profitability of our marketing partner for AFREZZA, and companies that are prospective collaborators for our product candidates, our ability to commercialize AFREZZA and our product candidates under development may be adversely affected.

In the United States and elsewhere, sales of prescription pharmaceuticals still depend in large part on the availability of coverage and adequate reimbursement to the consumer from third-party payors, such as governmental and private insurance plans. Third-party payors are increasingly challenging the prices charged for medical products and services. The market for AFREZZA and our product candidates for which we may receive regulatory approval will depend significantly on access to third-party payors' drug formularies, or lists of medications for which third-party payors provide coverage and reimbursement. The industry competition to be included in such formularies often leads to downward pricing pressures on pharmaceutical companies. Also, third-party payors may refuse to include a particular branded drug in their formularies or otherwise restrict patient access to a branded drug when a less costly generic equivalent or other alternative is available. In addition, because each third-party payor individually approves coverage and reimbursement levels, obtaining coverage and adequate reimbursement is a time-consuming and costly process. We may be required to provide scientific and clinical support for the use of any product to each third-party payor separately with no assurance that approval would be obtained. This process could delay the market acceptance of any product and could have a negative effect on our future revenues and operating results. Even if we succeed in bringing more products to market, we cannot be certain that any such products would be considered cost-effective or that coverage and adequate reimbursement to the consumer would be available. Patients will be unlikely to use our products unless coverage is provided and reimbursement is adequate to cover a significant portion of the cost of our products.

In addition, in many foreign countries, particularly the countries of the European Union, the pricing of prescription drugs is subject to government control. In some non-U.S. jurisdictions, the proposed pricing for a drug must be approved before it may be lawfully marketed. The requirements governing drug pricing vary widely from country to country. For example, the European Union provides options for its member states to restrict the range of medicinal products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. A member state may approve a specific price for the medicinal product or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the medicinal product on the market. We may face competition for AFREZZA or any of our other product candidates that receives marketing approval from lower-priced products in foreign countries that have placed price controls on pharmaceutical products. In addition, there may be importation of foreign products that compete with our own products, which could negatively impact our profitability.

If we or our marketing partner are unable to obtain coverage of, and adequate payment levels for, AFREZZA or any of our other product candidates that receive marketing approval from third-party payors, physicians may limit how much or under what circumstances they will prescribe or administer them and patients may decline to purchase them. This in turn could affect our and our marketing partner's ability to successfully commercialize AFREZZA and our ability to successfully commercialize any of our other product candidates that receives regulatory approval and impact our profitability, results of operations, financial condition, and prospects.

Healthcare legislation may make it more difficult to receive revenues. *

In both the United States and certain foreign jurisdictions, there have been a number of legislative and regulatory proposals in recent years to change the healthcare system in ways that could impact our ability to sell our products profitably. In March 2010, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act (collectively, "PPACA"), became law in the United States. PPACA substantially changes the way healthcare is financed by both governmental and private insurers and significantly affects the healthcare industry. Among the provisions of PPACA of importance to us are the following:

- an annual, nondeductible fee on any entity that manufactures or imports certain branded prescription drugs and biologic agents, apportioned among these entities according to their market share in certain government healthcare programs;
- a 2.3% medical device excise tax on certain transactions, including many U.S. sales of medical devices, which currently includes and we expect will continue to include U.S. sales of certain drug-device combination products;
- an increase in the statutory minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program to 23.1% and 13% of the average manufacturer price for most branded and generic drugs, respectively;
- a licensure framework for follow-on biological products;
- expansion of healthcare fraud and abuse laws, including the False Claims Act and the Anti-Kickback Statute, new government investigative powers, and enhanced penalties for noncompliance;
- a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50% point-of-sale discounts off negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturer's outpatient drugs to be covered under Medicare Part D;
- extension of manufacturers' Medicaid rebate liability to covered drugs dispensed to individuals who are enrolled in Medicaid managed care organizations;

- expansion of eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to additional individuals with income at or below 133% of the Federal Poverty Level, thereby potentially increasing manufacturers' Medicaid rebate liability;
- expansion of the entities eligible for discounts under the Public Health Service pharmaceutical pricing program;
- new requirements to report annually to the Centers for Medicare & Medicaid Services ("CMS") certain financial arrangements with physicians and teaching hospitals, as defined in PPACA and its implementing regulations, including reporting any "payments or transfers of value" made or distributed to prescribers, teaching hospitals and other healthcare providers and reporting any ownership and investment interests held by physicians and their immediate family members and applicable group purchasing organizations during the preceding calendar year;
- a new requirement to annually report drug samples that certain manufacturers and authorized distributors provide to physicians; and
- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research.

In addition, other legislative changes have been proposed and adopted since PPACA was enacted. For example, on August 2, 2011, the Budget Control Act of 2011, among other things, created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions to Medicare payments to providers of up to 2% per fiscal year, starting in 2013, and will stay in effect through 2024 unless additional Congressional action is taken. On January 2, 2013, President Obama signed into law the American Taxpayer Relief Act of 2012 (the "ATRA"), which, among other things, reduced Medicare payments to several providers, including hospitals, imaging centers and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. These new laws may result in additional reductions in Medicare and other healthcare funding, which could have a material adverse effect on our customers and accordingly, our financial operations.

We expect that PPACA, as well as other healthcare reform measures that may be adopted in the future, may result in more rigorous coverage criteria and in additional downward pressure on the price that we receive for any approved product, and could seriously harm our future revenues. Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private third-party payors. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability, or commercialize our products.

If we or our marketing partner fail to comply with federal and state healthcare laws, including fraud and abuse and health information privacy and security laws, we could face substantial penalties and our business, results of operations, financial condition and prospects could be adversely affected.

As a biopharmaceutical company, even though we do not and will not control referrals of healthcare services or bill directly to Medicare, Medicaid or other third-party payors, certain federal and state healthcare laws and regulations, including those pertaining to fraud and abuse and patients' rights are and will be applicable to our business. For example, we could be subject to healthcare fraud and abuse and patient privacy regulation by both the federal government and the states in which we conduct our business. The laws that may affect our ability to operate include, among others:

- the federal Anti-Kickback Statute, which constrains our business activities, including our marketing practices, educational programs, pricing policies, and relationships with healthcare providers or other entities by prohibiting, among other things, soliciting, receiving, offering or paying remuneration, directly or indirectly, to induce, or in return for, either the referral of an individual or the purchase or recommendation of an item or service reimbursable under a federal healthcare program, such as the Medicare and Medicaid programs;
- federal civil and criminal false claims laws and civil monetary penalty laws, which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, claims for payment from Medicare, Medicaid, or other third-party payors that are false or fraudulent;
- the federal Health Insurance Portability and Accountability Act of 1996 ("HIPAA"), which created new federal criminal statutes that prohibit, among other things, executing a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009 ("HITECH") and its implementing regulations, which imposes certain requirements relating to the privacy, security and transmission of individually identifiable health information;

- the federal physician sunshine requirements under PPACA, which requires certain manufacturers of drugs, devices, biologics, and medical supplies to report annually to the CMS information related to payments and other transfers of value to physicians, other healthcare providers, and teaching hospitals, and ownership and investment interests held by physicians and other healthcare providers and their immediate family members; and
- state and foreign law equivalents of each of the above federal laws, such as anti-kickback and false claims laws which may apply to items or services reimbursed by any third-party payor, including commercial insurers, and state and foreign laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts; state laws that require pharmaceutical companies to comply with the industry's voluntary compliance guidelines and the applicable compliance guidance promulgated by the federal government that otherwise restricts certain payments that may be made to healthcare providers and entities; and state laws that require drug manufacturers to report information related to payments and other transfer of value to physicians and other healthcare providers and entities.

Because of the breadth of these laws and the narrowness of available statutory and regulatory exceptions, it is possible that some of our business activities could be subject to challenge under one or more of such laws. To the extent that AFREZZA or any of our product candidates that receives marketing approval is ultimately sold in a foreign country, we may be subject to similar foreign laws and regulations. If we or our operations are found to be in violation of any of the laws described above or any other governmental regulations that apply to us, we may be subject to penalties, including civil and criminal penalties, damages, fines, individual imprisonment, disgorgement, exclusion of products from reimbursement under U.S. federal or state healthcare programs, and the curtailment or restructuring of our operations. Any penalties, damages, fines, curtailment or restructuring of our operations could materially adversely affect our ability to operate our business and our financial results. Although compliance programs can mitigate the risk of investigation and prosecution for violations of these laws, the risks cannot be entirely eliminated. Any action against us for violation of these laws, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business. Moreover, achieving and sustaining compliance with applicable federal and state privacy, security and fraud laws may prove costly.

If product liability claims are brought against us, we may incur significant liabilities and suffer damage to our reputation.

The testing, manufacturing, marketing and sale of AFREZZA and our other product candidates expose us to potential product liability claims. A product liability claim may result in substantial judgments as well as consume significant financial and management resources and result in adverse publicity, decreased demand for a product, injury to our reputation, withdrawal of clinical studies volunteers and loss of revenues. We currently carry worldwide product liability insurance in the amount of $10.0 million. In addition, we carry local clinical trial insurance policies per study in each country in which we conduct clinical studies that require us to carry coverage based on local statutory requirements. However, our insurance coverage may not be adequate to satisfy any liability that may arise, and because insurance coverage in our industry can be very expensive and difficult to obtain, we cannot assure you that we will be able to obtain sufficient coverage at an acceptable cost, if at all. If losses from such claims exceed our liability insurance coverage, we may ourselves incur substantial liabilities. If we are required to pay a product liability claim our business, financial condition and results of operations would be harmed and the market price of our common stock and other securities may decline.

If we lose any key employees or scientific advisors, our operations and our ability to execute our business strategy could be materially harmed.

We face intense competition for qualified employees among companies in the biotechnology and biopharmaceutical industries. Our success depends upon our ability to attract, retain and motivate highly skilled employees. We may be unable to attract and retain these individuals on acceptable terms, if at all. In addition, in order to commercialize AFREZZA successfully, we may be required to expand our work force, particularly in the areas of manufacturing. These activities will require the addition of new personnel, including management, and the development of additional expertise by existing personnel, and we cannot assure you that we will be able to attract or retain any such new personnel on acceptable terms, if at all.

The loss of the services of any principal member of our management and scientific staff could significantly delay or prevent the achievement of our scientific and business objectives. All of our employees are "at will" and we currently do not have employment agreements with any of the principal members of our management or scientific staff, and we do not have key person life insurance to cover the loss of any of these individuals. Replacing key employees may be difficult and time-consuming because of the limited number of individuals in our industry with the skills and experience required to develop, gain regulatory approval of and commercialize products successfully.

We have relationships with scientific advisors at academic and other institutions to conduct research or assist us in formulating our research, development or clinical strategy. These scientific advisors are not our employees and may have commitments to, and other obligations with, other entities that may limit their availability to us. We have limited control over the activities of these scientific advisors and can generally expect these individuals to devote only limited time to our activities. Failure of any of these persons to devote sufficient time and resources to our programs could harm our business. In addition, these advisors are not prohibited from, and may have arrangements with, other companies to assist those companies in developing technologies that may compete with AFREZZA or our product candidates.

If our internal controls over financial reporting are not considered effective, our business, financial condition and market price of our common stock and other securities could be adversely affected.

Section 404 of the Sarbanes-Oxley Act of 2002 requires us to evaluate the effectiveness of our internal controls over financial reporting as of the end of each fiscal year, and to include a management report assessing the effectiveness of our internal controls over financial reporting in our annual report on Form 10-K for that fiscal year. Section 404 also requires our independent registered public accounting firm to attest to, and report on, our internal controls over financial reporting.

Our management, including our Chief Executive Officer and Chief Financial Officer, does not expect that our internal controls over financial reporting will prevent all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud involving a company have been, or will be, detected. The design of any system of controls is based in part on certain assumptions about the likelihood of future events, and we cannot assure you that any design will succeed in achieving its stated goals under all potential future conditions. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies or procedures. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected. We cannot assure you that we or our independent registered public accounting firm will not identify a material weakness in our internal controls in the future. A material weakness in our internal controls over financial reporting would require management and our independent registered public accounting firm to evaluate our internal controls as ineffective. If our internal controls over financial reporting are not considered effective, we may experience a loss of public confidence, which could have an adverse effect on our business, financial condition and the market price of our common stock and other securities.

We may undertake internal restructuring activities in the future that could result in disruptions to our business or otherwise materially harm our results of operations or financial condition.

From time to time we may undertake internal restructuring activities as we continue to evaluate and attempt to optimize our cost and operating structure in light of developments in our business strategy and long-term operating plans. These activities may result in write-offs or other restructuring charges. There can be no assurance that any restructuring activities that we undertake will achieve the cost savings, operating efficiencies or other benefits that we may initially expect. Restructuring activities may also result in a loss of continuity, accumulated knowledge and inefficiency during transitional periods and thereafter. In addition, internal restructurings can require a significant amount of time and focus from management and other employees, which may divert attention from commercial operations. If we undertake any internal restructuring activities and fail to achieve some or all of the expected benefits therefrom, our business, results of operations and financial condition could be materially and adversely affected.

Our operations might be interrupted by the occurrence of a natural disaster or other catastrophic event.*

We expect that at least for the foreseeable future, our manufacturing facility in Danbury, Connecticut will be the sole location for the manufacturing of AFREZZA. This facility and the manufacturing equipment we use would be costly to replace and could require substantial lead time to repair or replace. We depend on our facilities and on collaborators, contractors and vendors for the continued operation of our business, some of whom are located in other countries. Natural disasters or other catastrophic events, including interruptions in the supply of natural resources, political and governmental changes, severe weather conditions, wildfires and other fires, explosions, actions of animal rights activists, terrorist attacks, volcanic eruptions, earthquakes and wars could disrupt our operations or those of our collaborators, contractors and vendors. We might suffer losses as a result of business interruptions that exceed the coverage available under our and our contractors' insurance policies or for which we or our contractors do not have coverage. For example, we are not insured against a terrorist attack. Any natural disaster or catastrophic event could have a significant negative impact on our operations and financial results. Moreover, any such event could delay our research and development programs and adversely affect, which may include stopping, our readiness for commercial production.

We deal with hazardous materials and must comply with environmental laws and regulations, which can be expensive and restrict how we do business.

Our research and development work involves the controlled storage and use of hazardous materials, including chemical and biological materials. In addition, our manufacturing operations involve the use of a chemical that may form an explosive mixture under certain conditions. Our operations also produce hazardous waste products. We are subject to federal, state and local laws and regulations (i) governing how we use, manufacture, store, handle and dispose of these materials (ii) imposing liability for costs of cleaning up, and damages to natural resources from past spills, waste disposals on and off-site, or other releases of hazardous materials or regulated substances, and (iii) regulating workplace safety. Moreover, the risk of accidental contamination or injury from hazardous materials cannot be completely eliminated, and in the event of an accident, we could be held liable for any damages that may result, and any liability could fall outside the coverage or exceed the limits of our insurance. Currently, our general liability policy provides coverage up to $1.0 million per occurrence and $2.0 million in the aggregate and is supplemented by an umbrella policy that provides a further $4.0 million of coverage; however, our insurance policy excludes pollution liability coverage and we do not carry a separate hazardous materials policy. In addition, we could be required to incur significant costs to comply with environmental laws and regulations in the future. Finally, current or future environmental laws and regulations may impair our research, development or production efforts or have an adverse impact on our business, results of operations and financial condition.

When we purchased the facilities located in Danbury, Connecticut in 2001, a soil and groundwater investigation and remediation was being conducted by a former site operator (the responsible party) under the oversight of the Connecticut Department of Environmental Protection. During the construction of our expanded manufacturing facility, we excavated contaminated soil under the footprint of our building expansion location. The responsible party reimbursed us for our increased excavation and disposal costs of contaminated soil in the amount of $1.6 million. It has conducted at its expense all work and will make all filings necessary to achieve closure for the environmental remediation conducted at the site, and has agreed to indemnify us for any future costs and expenses we may incur that are directly related to the final closure. If we are unable to collect these future costs and expenses, if any, from the responsible party, our business, financial condition and results of operations may be harmed.

RISKS RELATED TO GOVERNMENT REGULATION

Our product candidates must undergo costly and time-consuming rigorous nonclinical and clinical testing and we must obtain regulatory approval prior to the sale and marketing of any product in each jurisdiction. The results of this testing or issues that develop in the review and approval by a regulatory agency may subject us to unanticipated delays or prevent us from marketing any products.

Our research and development activities, as well as the manufacturing and marketing of AFREZZA and our product candidates, are subject to regulation, including regulation for safety, efficacy and quality, by the FDA in the United States and comparable authorities in other countries. FDA regulations and the regulations of comparable foreign regulatory authorities are wide-ranging and govern, among other things:

- product design, development, manufacture and testing;
- product labeling;
- product storage and shipping;
- pre-market clearance or approval;
- advertising and promotion; and
- product sales and distribution.

The requirements governing the conduct of clinical studies and manufacturing and marketing of AFREZZA and our product candidates outside the United States vary widely from country to country. Foreign approvals may take longer to obtain than FDA approvals and can require, among other things, additional testing and different clinical study designs. Foreign regulatory approval processes include essentially all of the risks associated with the FDA approval processes. Some of those agencies also must approve prices of the products. Approval of a product by the FDA does not ensure approval of the same product by the health authorities of other countries. In addition, changes in regulatory policy in the United States or in foreign countries for product approval during the period of product development and regulatory agency review of each submitted new application may cause delays or rejections.

Clinical testing can be costly and take many years, and the outcome is uncertain and susceptible to varying interpretations. We cannot be certain if or when regulatory agencies might request additional studies, under what conditions such studies might be requested, or what the size or length of any such studies might be. The clinical studies of our product candidates may not be completed on schedule, regulatory agencies may order us to stop or modify our research, or these agencies may not ultimately approve any of our product

candidates for commercial sale. The data collected from our clinical studies may not be sufficient to support regulatory approval of our product candidates. Even if we believe the data collected from our clinical studies are sufficient, regulatory agencies have substantial discretion in the approval process and may disagree with our interpretation of the data. Our failure to adequately demonstrate the safety and efficacy of any of our product candidates would delay or prevent regulatory approval of our product candidates, which could prevent us from achieving profitability.

Questions that have been raised about the safety of marketed drugs generally, including pertaining to the lack of adequate labeling, may result in increased cautiousness by regulatory agencies in reviewing new drugs based on safety, efficacy, or other regulatory considerations and may result in significant delays in obtaining regulatory approvals. Such regulatory considerations may also result in the imposition of more restrictive drug labeling or marketing requirements as conditions of approval, which may significantly affect the marketability of our drug products.

If we do not comply with regulatory requirements at any stage, whether before or after marketing approval is obtained, we may be fined or forced to remove a product from the market, subject to criminal prosecution, or experience other adverse consequences, including restrictions or delays in obtaining regulatory marketing approval.

Even if we comply with regulatory requirements, we may not be able to obtain the labeling claims necessary or desirable for product promotion. We may also be required to undertake post-marketing studies. For example, the FDA is requiring the following post-marketing studies for AFREZZA:

- a clinical trial to evaluate pharmacokinetics, safety and efficacy in pediatric patients;
- a clinical trial to evaluate the potential risk of pulmonary malignancy with AFREZZA (as well as cardiovascular risk and the long-term effect of AFREZZA on pulmonary function); and
- two pharmacokinetic-pharmacodynamic studies, one to characterize dose-response and one to characterize within-subject variability.

In addition, if we or other parties identify adverse effects after any of our products are on the market, or if manufacturing problems occur, regulatory approval may be withdrawn and a reformulation of our products, additional clinical studies, changes in labeling of, or indications of use for, our products and/or additional marketing applications may be required. If we encounter any of the foregoing problems, our business, financial condition and results of operations will be harmed and the market price of our common stock and other securities may decline.

We are subject to stringent, ongoing government regulation.

The manufacture, marketing and sale of AFREZZA are subject to stringent and ongoing government regulation. The FDA may also withdraw product approvals if problems concerning the safety or efficacy of a product appear following approval. We cannot be sure that FDA and United States Congressional initiatives or actions by foreign regulatory bodies pertaining to ensuring the safety of marketed drugs or other developments pertaining to the pharmaceutical industry will not adversely affect our operations.

We also are required to register our establishments and list our products with the FDA and certain state agencies. We and any third-party manufacturers or suppliers must continually adhere to federal regulations setting forth requirements, known as cGMP (for drugs) and QSR (for medical devices), and their foreign equivalents, which are enforced by the FDA and other national regulatory bodies through their facilities inspection programs. In complying with cGMP and foreign regulatory requirements, we and any of our potential third-party manufacturers or suppliers will be obligated to expend time, money and effort in production, record-keeping and quality control to ensure that our products meet applicable specifications and other requirements. QSR requirements also impose extensive testing, control and documentation requirements. State regulatory agencies and the regulatory agencies of other countries have similar requirements. In addition, we will be required to comply with regulatory requirements of the FDA, state regulatory agencies and the regulatory agencies of other countries concerning the reporting of adverse events and device malfunctions, corrections and removals (e.g., recalls), promotion and advertising and general prohibitions against the manufacture and distribution of adulterated and misbranded devices. Failure to comply with these regulatory requirements could result in civil fines, product seizures, injunctions and/or criminal prosecution of responsible individuals and us. Any such actions would have a material adverse effect on our business, financial condition and results of operations.

Our suppliers are subject to FDA inspection.

We depend on suppliers for insulin and other materials that comprise AFREZZA, including our AFREZZA inhaler and cartridges. Each supplier must comply with relevant regulatory requirements and is subject to inspection by the FDA. There can be no assurance, in the conduct of an inspection of any of our suppliers that the agency would find that the supplier substantially complies with the

QSR or cGMP requirements, where applicable. If we or any potential third-party manufacturer or supplier fails to comply with these requirements or comparable requirements in foreign countries, regulatory authorities may subject us to regulatory action, including criminal prosecutions, fines and suspension of the manufacture of our products.

If we are required to find a new or additional supplier of insulin, we will be required to evaluate the new supplier's ability to provide insulin that meets regulatory requirements, including cGMP requirements as well as our specifications and quality requirements, which would require significant time and expense and could delay the manufacturing and commercialization of AFREZZA.

Reports of side effects or safety concerns in related technology fields or in other companies' clinical studies could delay or prevent us from obtaining regulatory approval for our product candidates or negatively impact public perception of AFREZZA or any other products we may develop*.

At present, there are a number of clinical studies being conducted by other pharmaceutical companies involving insulin delivery systems. If other pharmaceutical companies announce that they observed frequent adverse events in their studies involving insulin therapies, we may be subject to class warnings in the label for AFREZZA. In addition, the public perception of AFREZZA might be adversely affected, which could harm our business, financial condition and results of operations and cause the market price of our common stock and other securities to decline, even if the concern relates to another company's products or product candidates.

There are also a number of clinical studies being conducted by other pharmaceutical companies involving compounds similar to, or competitive with, our other product candidates. Adverse results reported by these other companies in their clinical studies could delay or prevent us from obtaining regulatory approval or negatively impact public perception of our product candidates, which could harm our business, financial condition and results of operations and cause the market price of our common stock and other securities to decline.

RISKS RELATED TO INTELLECTUAL PROPERTY

If we are unable to protect our proprietary rights, we may not be able to compete effectively, or operate profitably.

Our commercial success depends, in large part, on our ability to obtain and maintain intellectual property protection for our technology. Our ability to do so will depend on, among other things, complex legal and factual questions, and it should be noted that the standards regarding intellectual property rights in our fields are still evolving. We attempt to protect our proprietary technology through a combination of patents, trade secrets and confidentiality agreements. We own a number of domestic and international patents, have a number of domestic and international patent applications pending and have licenses to additional patents. We cannot assure you that our patents and licenses will successfully preclude others from using our technologies, and we could incur substantial costs in seeking enforcement of our proprietary rights against infringement. Even if issued, the patents may not give us an advantage over competitors with alternative technologies.

Moreover, the term of a patent is limited and, as a result, the patents protecting our products expire at various dates. For example, some patents providing protection for AFREZZA inhalation powder have terms extending into 2020, 2030 and 2031. In addition, patents providing protection for our inhaler and cartridges have terms extending into 2023, 2031 and 2032, and we have method of treatment claims that extend into 2026 and 2029. As and when these different patents expire, AFREZZA could become subject to increased competition. As a consequence, we may not be able to recover our development costs.

Moreover, the issuance of a patent is not conclusive as to its validity or enforceability and it is uncertain how much protection, if any, will be afforded by our patents. A third party may challenge the validity or enforceability of a patent after its issuance by various proceedings such as oppositions in foreign jurisdictions or re-examinations or other review in the United States. In some instances we may seek re-examination or reissuance of our own patents. If we attempt to enforce our patents, they may be challenged in court where they could be held invalid, unenforceable, or have their breadth narrowed to an extent that would destroy their value.

On September 16, 2011, the Leahy-Smith America Invents Act (the "Leahy-Smith Act") was signed into law. The Leahy-Smith Act includes a number of significant changes to United States patent law. These include provisions that affect the way patent applications will be prosecuted, subjected to post-grant challenge, and may also affect patent litigation. The United States Patent and Trademark Office ("USPTO") is continuing to develop regulations and procedures to govern administration of the Leahy-Smith Act, and while all of the substantive changes to patent law associated with the Leahy-Smith Act have become effective, many changes have only recently become effective. Moreover there will be a transitional period of many years during which some applications may be eligible for prosecution under the previous rules. There are many ambiguities in this new law and how the courts will interpret it cannot be predicted with confidence. Accordingly, it is not clear what, if any, impact the Leahy-Smith Act will have on the operation of our business. The Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business, financial condition and results of operations.

Moreover, patent law continues to evolve. Several further changes to patent law are before Congress. The United States Supreme Court has exhibited an increased interest in patent law and several of its recent decisions have tended to narrow the scope of patentable subject matter related to medical products and methods. In March 2014 the USPTO, in response to Supreme Court decisions, issued new examination guidelines which call into question the patentability of biological inventions that had previously been considered patentable. While none of this has an immediately apparent impact on our core technology and patents, the full and ultimate effect of these developments is not yet known. We also rely on unpatented technology, trade secrets, know-how and confidentiality agreements. We require our officers, employees, consultants and advisors to execute proprietary information and invention and assignment agreements upon commencement of their relationships with us. These agreements provide that all inventions developed by the individual on behalf of us must be assigned to us and that the individual will cooperate with us in connection with securing patent protection on the invention if we wish to pursue such protection. We also execute confidentiality agreements with outside collaborators. There can be no assurance, however, that our inventions and assignment agreements and our confidentiality agreements will provide meaningful protection for our inventions, trade secrets, know-how or other proprietary information in the event of unauthorized use or disclosure of such information. If any trade secret, know-how or other technology not protected by a patent were to be disclosed to or independently developed by a competitor, our business, results of operations and financial condition could be adversely affected.

If we become involved in lawsuits to protect or enforce our patents or the patents of our collaborators or licensors, we would be required to devote substantial time and resources to prosecute or defend such proceedings.

Competitors may infringe our patents or the patents of our collaborators or licensors. To counter infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time-consuming. In addition, in an infringement proceeding, a court may decide that a patent of ours is not valid or is unenforceable, or may refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover its technology. A court may also decide to award us a royalty from an infringing party instead of issuing an injunction against the infringing activity. An adverse determination of any litigation or defense proceedings could put one or more of our patents at risk of being invalidated or interpreted narrowly and could put our patent applications at risk of not issuing.

Interference proceedings brought by the USPTO, may be necessary to determine the priority of inventions with respect to our patent applications or those of our collaborators or licensors. Additionally, the Leahy-Smith Act has greatly expanded the options for post-grant review of patents that can be brought by third parties. Litigation, post-grant review, or interference proceedings may fail and, even if successful, may result in substantial costs and be a distraction to our management. We may not be able, alone or with our collaborators and licensors, to prevent misappropriation of our proprietary rights, particularly in countries where the laws may not protect such rights as fully as in the United States. We may not prevail in any litigation, post-grant review, or interference proceeding in which we are involved. Even if we do prevail, these proceedings can be very expensive and distract our management.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. In addition, during the course of this kind of litigation, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, the market price of our common stock and other securities may decline.

If our technologies conflict with the proprietary rights of others, we may incur substantial costs as a result of litigation or other proceedings and we could face substantial monetary damages and be precluded from commercializing our products, which would materially harm our business and financial condition.

Biotechnology patents are numerous and may, at times, conflict with one another. As a result, it is not always clear to industry participants, including us, which patents cover the multitude of biotechnology product types. Ultimately, the courts must determine the scope of coverage afforded by a patent and the courts do not always arrive at uniform conclusions.

A patent owner may claim that we are making, using, selling or offering for sale an invention covered by the owner’s patents and may go to court to stop us from engaging in such activities. Such litigation is not uncommon in our industry.

Patent lawsuits can be expensive and would consume time and other resources. There is a risk that a court would decide that we are infringing a third party’s patents and would order us to stop the activities covered by the patents, including the commercialization of our products. In addition, there is a risk that we would have to pay the other party damages for having violated the other party’s

patents (which damages may be increased, as well as attorneys' fees ordered paid, if infringement is found to be willful), or that we will be required to obtain a license from the other party in order to continue to commercialize the affected products, or to design our products in a manner that does not infringe a valid patent. We may not prevail in any legal action, and a required license under the patent may not be available on acceptable terms or at all, requiring cessation of activities that were found to infringe a valid patent. We also may not be able to develop a non-infringing product design on commercially reasonable terms, or at all.

Moreover, certain components of AFREZZA may be manufactured outside the United States and imported into the United States. As such, third parties could file complaints under 19 U.S.C. Section 337(a)(1)(B) (a "337 action") with the International Trade Commission (the "ITC"). A 337 action can be expensive and would consume time and other resources. There is a risk that the ITC would decide that we are infringing a third party's patents and either enjoin us from importing the infringing products or parts thereof into the United States or set a bond in an amount that the ITC considers would offset our competitive advantage from the continued importation during the statutory review period. The bond could be up to 100% of the value of the patented products. We may not prevail in any legal action, and a required license under the patent may not be available on acceptable terms, or at all, resulting in a permanent injunction preventing any further importation of the infringing products or parts thereof into the United States. We also may not be able to develop a non-infringing product design on commercially reasonable terms, or at all.

Although we own a number of domestic and foreign patents and patent applications relating to AFREZZA, we have identified certain third-party patents having claims that may trigger an allegation of infringement upon the commercial manufacture and sale of AFREZZA. If a court were to determine that AFREZZA was infringing any of these patent rights, we would have to establish with the court that these patents were invalid or unenforceable in order to avoid legal liability for infringement of these patents. However, proving patent invalidity or unenforceability can be difficult because issued patents are presumed valid. Therefore, in the event that we are unable to prevail in a non-infringement or invalidity action we will have to either acquire the third-party patents outright or seek a royalty-bearing license. Royalty-bearing licenses effectively increase production costs and therefore may materially affect product profitability. Furthermore, should the patent holder refuse to either assign or license us the infringed patents, it may be necessary to cease manufacturing the product entirely and/or design around the patents, if possible. In either event, our business, financial condition and results of operations would be harmed and our profitability could be materially and adversely impacted.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. In addition, during the course of this kind of litigation, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, the market price of our common stock and other securities may decline.

In addition, patent litigation may divert the attention of key personnel and we may not have sufficient resources to bring these actions to a successful conclusion. At the same time, some of our competitors may be able to sustain the costs of complex patent litigation more effectively than we can because they have substantially greater resources. An adverse determination in a judicial or administrative proceeding or failure to obtain necessary licenses could prevent us from manufacturing and selling our products or result in substantial monetary damages, which would adversely affect our business, financial condition and results of operations and cause the market price of our common stock and other securities to decline.

We may not obtain trademark registrations for our potential trade names.

We have not selected trade names for some of our product candidates; therefore, we have not filed trademark registrations for such potential trade names for our product candidates, nor can we assure that we will be granted registration of any potential trade names for which we do file. No assurance can be given that any of our trademarks will be registered in the United States or elsewhere, or once registered that, prior to our being able to enter a particular market, they will not be cancelled for non-use. Nor can we give assurances, that the use of any of our trademarks will confer a competitive advantage in the marketplace.

Furthermore, even if we are successful in our trademark registrations, the FDA has its own process for drug nomenclature and its own views concerning appropriate proprietary names. It also has the power, even after granting market approval, to request a company to reconsider the name for a product because of evidence of confusion in the marketplace. We cannot assure you that the FDA or any other regulatory authority will approve of any of our trademarks or will not request reconsideration of one of our trademarks at some time in the future.

RISKS RELATED TO OUR COMMON STOCK

We may not be able to generate sufficient cash to service all of our indebtedness. We may be forced to take other actions to satisfy our obligations under our indebtedness or we may experience a financial failure.

Our ability to make scheduled payments on or to refinance our debt obligations will depend on our financial and operating performance, which is subject to prevailing economic and competitive conditions and to certain financial, business and other factors beyond our control. We cannot assure you that we will maintain a level of cash flows from operating activities sufficient to permit us to pay the principal, premium, if any, and interest on our indebtedness. If our cash flows and capital resources are insufficient to fund our debt service obligations, we may be forced to reduce or delay capital expenditures, sell assets or operations, seek additional capital or restructure or refinance our indebtedness. We cannot assure you that we would be able to take any of these actions, that these actions would be successful and permit us to meet our scheduled debt service obligations or that these actions would be permitted under the terms of our future debt agreements. In the absence of sufficient operating results and resources, we could face substantial liquidity problems and might be required to dispose of material assets or operations to meet our debt service and other obligations. We may not be able to consummate those dispositions or obtain sufficient proceeds from those dispositions to meet our debt service and other obligations then due.

Future sales of shares of our common stock in the public market, or the perception that such sales may occur, may depress our stock price and adversely impact the market price of our common stock and other securities. ***

If our existing stockholders or their distributees sell substantial amounts of our common stock in the public market, the market price of our common stock could decrease significantly. The perception in the public market that our existing stockholders might sell shares of common stock could also depress the market price of our common stock and the market price of our other securities. Any such sales of our common stock in the public market may affect the price of our common stock or the market price of our other securities.

In the future, we may sell additional shares of our common stock to raise capital. In addition, a substantial number of shares of our common stock is reserved for: issuance upon the exercise of stock options and, in the future, may be reserved for the vesting of restricted stock unit awards; the purchase of shares of common stock under our employee stock purchase program; and the issuance of shares upon exchange or conversion of the 2015 notes, the 2018 notes or any other convertible debt we may issue. We cannot predict the size of future issuances or the effect, if any, that they may have on the market price for our common stock. The issuance or sale of substantial amounts of common stock, or the perception that such issuances or sales may occur, could adversely affect the market price of our common stock and other securities.

Our stock price is volatile and may affect the market price of our common stock and other securities.*

The stock market, particularly in recent years, has experienced significant volatility particularly with respect to pharmaceutical and biotechnology stocks, and this trend may continue. The volatility of pharmaceutical and biotechnology stocks often does not relate to the operating performance of the companies represented by the stock. Our business and the market price of our common stock may be influenced by a large variety of factors, including:

- the progress of the commercial launch of AFREZZA and other events or circumstances that we or others estimate will impact the future commercialization of AFREZZA;
- our or Sanofi's future estimates of AFREZZA sales, prescriptions or other operating metrics;
- the progress and results of our preclinical and clinical studies of our product candidates and the post-approval studies of AFREZZA required by the FDA;
- general economic, political or stock market conditions;
- legislative developments;
- announcements by us, our collaborators, or our competitors concerning clinical study results, acquisitions, strategic alliances, technological innovations, newly approved commercial products, product discontinuations, or other developments;
- the availability of critical materials used in developing and manufacturing AFREZZA or other product candidates;
- developments or disputes concerning our collaboration with Sanofi or our relationships with third party manufacturers;
- developments or disputes concerning our patents or proprietary rights;
- the expense and time associated with, and the extent of our ultimate success in, securing regulatory approvals;
- announcements by us concerning our financial condition or operating performance;
- changes in securities analysts' estimates of our financial condition or operating performance;
- general market conditions and fluctuations for emerging growth and pharmaceutical market sectors;

- sales of large blocks of our common stock, including sales by our executive officers, directors and significant stockholders;
- the status of any legal proceedings or regulatory matters against or involving us or any of our executive officers and directors;
- the existence of, and the issuance of shares of our common stock pursuant to, the share lending agreement and the short sales of our common stock effected in connection with the sale of our 2015 notes;
- speculative trading based on the expected completion or non-completion of the exchange transactions relating to our 2015 notes, and the issuance of shares upon exchange or conversion of our 2015 notes; and
- discussion of AFREZZA, our other product candidates, competitors' products, or our stock price by the financial and scientific press, the healthcare community and online investor communities such as chat rooms. In particular, it may be difficult to verify statements about us and our investigational products that appear on interactive websites that permit users to generate content anonymously or under a pseudonym and statements attributed to company officials may, in fact, have originated elsewhere.

Any of these risks, as well as other factors, could cause the market value of our common stock and other securities to decline.

If other biotechnology and biopharmaceutical companies or the securities markets in general encounter problems, the market price of our common stock and other securities could be adversely affected.

Public companies in general and companies included on The NASDAQ Global Market in particular have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of those companies. There has been particular volatility in the market prices of securities of biotechnology and other life sciences companies, and the market prices of these companies have often fluctuated because of problems or successes in a given market segment or because investor interest has shifted to other segments. These broad market and industry factors may cause the market price of our common stock and other securities to decline, regardless of our operating performance. We have no control over this volatility and can only focus our efforts on our own operations, and even these may be affected due to the state of the capital markets.

In the past, following periods of large price declines in the public market price of a company's securities, securities class action litigation has often been initiated against that company. Litigation of this type could result in substantial costs and diversion of management's attention and resources, which would hurt our business. Any adverse determination in litigation could also subject us to significant liabilities.

Our Executive Chairman and principal stockholder may be able to heavily influence our direction and policies as a result of his ownership of our common stock, and his interests may be adverse to the interests of our other stockholders. After his death, his stock will be left to his funding foundations for distribution to various charities, and we cannot assure you of the manner in which those entities will manage their holdings.*

At June 30, 2015, Alfred E. Mann, our Executive Chairman and principal stockholder, beneficially owned approximately 37.2% of our outstanding shares of capital stock. By virtue of his holdings, Mr. Mann may be able to heavily influence elections of directors, our management and our affairs and prevent corporate transactions such as mergers, consolidations or the sale of all or substantially all of our assets that may be favorable from our standpoint or that of our other stockholders or cause a transaction that we or our other stockholders may view as unfavorable.

Subject to compliance with United States federal and state securities laws, Mr. Mann is free to sell the shares of our stock he holds at any time. Upon his death, we have been advised by Mr. Mann that his shares of our capital stock will be left to the Alfred E. Mann Medical Research Organization ("AEMMRO"), and AEM Foundation for Biomedical Engineering ("AEMFBE"), not-for-profit medical research foundations that serve as funding organizations for Mr. Mann's various charities, including the Alfred Mann Foundation ("AMF"), and the Alfred Mann Institutes at the University of Southern California, the Technion-Israel Institute of Technology, and Purdue University, and that may serve as funding organizations for any other charities that he may establish. The AEMMRO is a membership foundation consisting of nine members, including Mr. Mann, his wife, three of his children and Dr. Joseph Schulman, the chief scientist of the AEMFBE. The AEMFBE is a membership foundation consisting of five members, including Mr. Mann, his wife, and the same three of his children. Although we understand that the members of AEMMRO and AEMFBE have been advised of Mr. Mann's objectives for these foundations, once Mr. Mann's shares of our capital stock become the property of the foundations, we cannot assure you as to how those shares will be distributed or how they will be voted.

The future sale of our common stock, the exchange or conversion of our 2015 notes or 2018 into common stock or the exercise of our warrants for common stock could negatively affect the market price of our common stock and other securities.*

As of August 7, 2015, we had 414,033,866 shares of common stock outstanding. Substantially all of these shares are available for public sale, subject in some cases to volume and other limitations or delivery of a prospectus. If our common stockholders sell substantial amounts of common stock in the public market, or the market perceives that such sales may occur, the market price of our common stock and other securities may decline. Likewise the issuance of additional shares of our common stock upon the exchange or conversion of some or all of our 2015 notes or 2018 notes, or upon the exercise of some or all of the warrants we issued in February 2012, could adversely affect the market price of our common stock and other securities. In addition, the existence of these notes and warrants may encourage short selling of our common stock by market participants, which could adversely affect the market price of our common stock and other securities.

In addition, we will need to raise substantial additional capital in the future to fund our operations. If we raise additional funds by issuing equity securities or additional convertible debt, the market price of our common stock and other securities may decline.

Anti-takeover provisions in our charter documents and under Delaware law could make an acquisition of us, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current management.*

We are incorporated in Delaware. Certain anti-takeover provisions under Delaware law and in our certificate of incorporation and amended and restated bylaws, as currently in effect, may make a change of control of our company more difficult, even if a change in control would be beneficial to our stockholders or the holders of our other securities. Our anti-takeover provisions include provisions such as a prohibition on stockholder actions by written consent, the authority of our board of directors to issue preferred stock without stockholder approval, and supermajority voting requirements for specified actions. In addition, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which generally prohibits stockholders owning 15% or more of our outstanding voting stock from merging or combining with us in certain circumstances. These provisions may delay or prevent an acquisition of us, even if the acquisition may be considered beneficial by some of our stockholders. In addition, they may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, which is responsible for appointing the members of our management.

Because we do not expect to pay dividends in the foreseeable future, you must rely on stock appreciation for any return on any investment in our common stock.

We have paid no cash dividends on any of our capital stock to date, and we currently intend to retain our future earnings, if any, to fund the development and growth of our business. As a result, we do not expect to pay any cash dividends in the foreseeable future, and payment of cash dividends, if any, will also depend on our financial condition, results of operations, capital requirements and other factors and will be at the discretion of our board of directors. Pursuant to the Facility Agreement, we are subject to contractual restrictions on the payment of dividends. There is no guarantee that our common stock will appreciate or maintain its current price. You could lose the entire value of any investment in our common stock.

We have a limited number of unreserved shares available for future issuance, which may impair our ability to conduct future financing and other transactions.*

Our amended and restated certificate of incorporation currently authorizes us to issue up to 550,000,000 shares of common stock and 10,000,000 shares of preferred stock. As of August 7, 2015, we had a total of 135,966,134 shares of common stock that were authorized but unissued, and we have currently reserved a significant number of these shares for future issuance pursuant to outstanding equity awards, our equity plans, our 2015 notes and our 2018 notes. As a result, our ability to issue shares of common stock other than pursuant to existing arrangements will be limited until such time, if ever, that we are able to amend our amended and restated certificate of incorporation to further increase our authorized shares of common stock or shares currently reserved for issuance otherwise become available (for example, due to the termination of the underlying agreement to issue the shares).

If we are unable to enter into new arrangements to issue shares of our common stock or securities convertible or exercisable into shares of our common stock, our ability to complete equity-based financings or other transactions that involve the potential issuance of our common stock or securities convertible or exercisable into our common stock, will be limited. In lieu of issuing common stock or securities convertible into our common stock in any future equity financing transactions, we may need to issue some or all of our authorized but unissued shares of preferred stock, which would likely have superior rights, preferences and privileges to those of our common stock, or we may need to issue debt that is not convertible into shares of our common stock, which may require us to grant security interests in our assets and property and/or impose covenants upon us that restrict our business. If we are unable to issue additional shares of common stock or securities convertible or exercisable into our common stock, our ability to enter into strategic

transactions such as acquisitions of companies or technologies, may also be limited. If we propose to amend our amended and restated certificate of incorporation to increase our authorized shares of common stock, such a proposal would require the approval by the holders of a majority of our outstanding shares of common stock, and we cannot assure you that such a proposal would be adopted. If we are unable to complete financing, strategic or other transactions due to our inability to issue additional shares of common stock or securities convertible or exercisable into our common stock, our financial condition and business prospects may be materially harmed.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

None.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

As more fully described in our Current Report on Form 8-K filed on July 29, 2015, on July 28, 2015 we entered into separate, privately-negotiated exchange agreements (the "Stock-for-Note Exchange Agreements") with select holders of our outstanding 2015 notes, pursuant to which we agreed to issue shares of our common stock (the "Exchange Shares"), to such holders in exchange for their delivery to us of up to $56.9 million aggregate principal amount of 2015 notes, with the exchange price for up to approximately 1/10th of the 2015 notes held by such holders to be determined each trading day over a 10 trading day period ending on, and including, August 11, 2015 (the "Exchange Period").

On August 10, 2015, we entered into amendments (the "Amendments") to the Stock-for-Note Exchange Agreements to allow each holder to increase the principal amount of 2015 notes that may be exchanged on any trading day during the remainder of the Exchange Period, up to the aggregate principal amount of 2015 notes subject to the applicable Stock-for-Note Exchange Agreement and not previously exchanged for Exchange Shares.

The foregoing description of the Amendments does not purport to be complete and is qualified in its entirety by reference to the Amendments, the form of which we expect to file as an exhibit to a subsequent filing with the Securities and Exchange Commission.

This report does not constitute an offer to sell, or a solicitation of an offer to buy, any security and shall not constitute an offer, solicitation or sale in any jurisdiction in which such offering would be unlawful.

ITEM 6. EXHIBITS

Exhibit Number	Description of Document
3.1	Amended and Restated Certificate of Incorporation (incorporated by reference to MannKind's Registration Statement on Form S-1 (File No. 333-115020), originally filed with the SEC on April 30, 2004, as amended).
3.2	Certificate of Amendment of Amended and Restated Certificate of Incorporation (incorporated by reference to MannKind's Quarterly Report on Form 10-Q (File No. 000-50865), originally filed with the SEC on August 9, 2007).
3.3	Certificate of Amendment of Amended and Restated Certificate of Incorporation (incorporated by reference to MannKind's Quarterly report on Form 10-Q (File No. 000-50865), originally filed with the SEC on August 2, 2010).
3.4	Certificate of Amendment of Amended and Restated Certificate of Incorporation (incorporated by reference to MannKind's Current Report on Form 8-K (File No. 000-50865), originally filed with the SEC on July 1, 2013).
3.5	Amended and Restated Bylaws (incorporated by reference to MannKind's Current Report on Form 8-K (File No. 000-50865), originally filed with the SEC on November 19, 2007).
4.1	Form of common stock certificate (incorporated by reference to MannKind's Annual Report on Form 10-K (File No. 000-50865), originally filed with the SEC on March 18, 2013).
4.2	Registration Rights Agreement, dated October 15, 1998 by and among CTL Immuno Therapies Corp., Medical Research Group, LLC, McLean Watson Advisory Inc. and Alfred E. Mann, as amended (incorporated by reference to MannKind's Registration Statement on Form S-1 (File No. 333-115020), originally filed with the SEC on April 30, 2004, as amended).
4.3	Indenture, by and between MannKind and Wells Fargo Bank, N.A., dated August 24, 2010 (incorporated by reference to MannKind's Current Report on Form 8-K (File No. 000-50865), originally filed with the SEC on August 24, 2010).
4.4	Form of 5.75% Senior Convertible Note due 2015 (incorporated by reference to MannKind's Current Report on Form 8-K (File No. 000-50865), originally filed with the SEC on August 24, 2010).
4.5	Form of Warrant to Purchase Common Stock issued February 8, 2012 (incorporated by reference to MannKind's Current Report on Form 8-K (File No. 000-50865), originally filed with the SEC on February 6, 2012).
4.6	Form of 9.75% Senior Secured Convertible Promissory Note due 2019 (incorporated by reference to MannKind's current report on Form 8-K (File No. 000-50865), originally filed with the SEC on July 1, 2013).

Exhibit Number	Description of Document
4.7	Form of Amended and Restated 9.75% Senior Secured Convertible Promissory Note due 2019 (incorporated by reference to MannKind's Annual Report on Form 10-K (File No. 000-50865), originally filed with the SEC on March 3, 2014).
4.8	Form of Tranche B Senior Secured Note due 2019 (incorporated by reference to Exhibit 4.8 to MannKind's Quarterly Report on Form 10-Q (File No. 000-50856), filed with the SEC on May 12, 2014).
4.9	Milestone Rights Purchase Agreement, dated as of July 1, 2013, by and among MannKind, Deerfield Private Design Fund II, L.P. and Horizon Santé FLML SÁRL (incorporated by reference to MannKind's Current Report on Form 8-K (File No. 000-50865), originally filed with the SEC on July 1, 2013).
4.10	Guaranty and Security Agreement, dated as of July 1, 2013, by and among MannKind, MannKind LLC, Deerfield Private Design Fund II, L.P., Deerfield Private Design International II, L.P. and Horizon Santé FLML SÁRL (incorporated by reference to MannKind's Current Report on Form 8-K (File No. 000-50865), originally filed with the SEC on July 1, 2013).
4.11	Registration Rights Agreement, dated as of July 1, 2013, by and among MannKind, Deerfield Private Design Fund II, L.P. and Deerfield Private Design International II, L.P. (incorporated by reference to MannKind's Current Report on Form 8-K (File No. 000-50865), originally filed with the SEC on July 1, 2013).
4.12	Facility Agreement, dated as of July 1, 2013, by and among MannKind Corporation, Deerfield Private Design Fund II, L.P. and Deerfield Private Design International II, L.P. (incorporated by reference to MannKind's Current Report on Form 8-K (File No. 000-50865), originally filed with the SEC on July 1, 2013).
4.13	First Amendment to Facility Agreement and Registration Rights Agreement, dated as of February 28, 2014, by and among MannKind, Deerfield Private Design Fund II, L.P. and Deerfield Private Design International II, L.P. (incorporated by reference to MannKind's Annual Report on Form 10-K (File No. 000-50865), originally filed with the SEC on March 3, 2014).
4.14	Form of Tranche B Senior Secured Note due 2019 (incorporated by reference to Exhibit 4.8 to MannKind's Quarterly Report on Form 10-Q (File No. 000-50865), filed with the SEC on May 12, 2014).
4.15	Senior Secured Revolving Promissory Note, dated as of September 23, 2014, by and between MannKind Corporation and Aventisub LLC (incorporated by reference to Exhibit 99.1 to MannKind's Current Report on Form 8-K (File No. 000-50865), filed with the SEC on September 29, 2014).
4.16	Senior Secured Revolving Promissory Note, dated as of September 23, 2014, by and between MannKind Corporation and Aventisub LLC (incorporated by reference to Exhibit 99.1 to MannKind's Current Report on Form 8-K (File No. 000-50865), filed with the SEC on September 29, 2014).
4.17	Guaranty and Security Agreement, dated as of September 23, 2014, by and among MannKind Corporation, MannKind LLC and Aventisub LLC (incorporated by reference to Exhibit 99.2 to MannKind's Current Report on Form 8-K (File No. 000-50865), filed with the SEC on September 29, 2014).
4.18	Indenture, by and between MannKind and Wells Fargo Bank, N.A., dated August 10, 2015.
4.19	Form of 5.75% Convertible Senior Subordinated Exchange Note due 2018 (included in Exhibit 4.18 as Exhibit A thereto).
31.1	Certification of the Chief Executive Officer pursuant to Rules 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended.
31.2	Certification of the Chief Financial Officer pursuant to Rules 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended.
32	Certifications of the Chief Executive Officer and Chief Financial Officer pursuant to Rules 13a-14(b) and 15d-14(b) of the Securities Exchange Act of 1934, as amended and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. §1350).
101	Interactive Data Files pursuant to Rule 405 of Regulation S-T.

+ Indicates management contract

SIGNATURE

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 thereunto duly authorized.

Dated: August 10, 2015

MANNKIND CORPORATION

By: /s/ MATTHEW J. PFEFFER

Matthew J. Pfeffer

Corporate Vice President and Chief Financial Officer

(Principal Financial and Accounting Officer)

Exhibit 4.18

Execution Version

MANNKIND CORPORATION

AND

WELLS FARGO BANK, NATIONAL ASSOCIATION

as Trustee

INDENTURE

Dated as of August 10, 2015

5.75% Convertible Senior Subordinated Exchange Notes due 2018

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INDENTURE dated as of August 10, 2015 between MannKind Corporation, a Delaware corporation, as issuer (the "**Company**") and Wells Fargo Bank, National Association, as trustee, a national banking association organized under the laws of the United States of America (the "**Trustee**").

W I T N E S S E T H:

WHEREAS, for its lawful corporate purposes, the Company has duly authorized the issue of its 5.75% Convertible Senior Subordinated Exchange Notes due 2018 (the "**Notes**"), initially in an aggregate principal amount of $27,690,000, and in order to provide the terms and conditions upon which the Notes are to be authenticated, issued and delivered, the Company has duly authorized the execution and delivery of this Indenture; and

WHEREAS, the Form of Note, the certificate of authentication to be borne by each Note, the Form of Notice of Conversion, the Form of Fundamental Change Purchase Notice and the Form of Assignment and Transfer to be borne by the Notes are to be substantially in the forms hereinafter provided; and

WHEREAS, all acts and things necessary to make the Notes, when executed by the Company and authenticated and delivered by the Trustee or a duly authorized authenticating agent, as in this Indenture provided, the valid, binding and legal obligations of the Company, and to constitute these presents a valid agreement according to its terms, have been done and performed, and the execution of this Indenture and the issue hereunder of the Notes have in all respects been duly authorized.

NOW, THEREFORE, THIS INDENTURE WITNESSETH:

That in order to declare the terms and conditions upon which the Notes are, and are to be, authenticated, issued and delivered, and in consideration of the premises and of the purchase and acceptance of the Notes by the Holders thereof, the Company covenants and agrees with the Trustee for the equal and proportionate benefit of the respective Holders from time to time of the Notes (except as otherwise provided below), as follows:

ARTICLE 1
DEFINITIONS; INTERPRETATIONS

Section 1.01. Definitions. The terms defined in this Section 1.01 (except as herein 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 1.01. All other terms used in this Indenture that are defined in the Trust Indenture Act or that are by

reference therein defined in the Securities Act (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 the Securities Act as in force at the date of the execution of this Indenture. The words "herein," "hereof," "hereunder," and words of similar import refer to this Indenture as a whole and not to any particular Article, Section or other subdivision. The terms defined in this Article include the plural as well as the singular. Unless otherwise noted, references to "U.S. Dollars" or "$" shall mean the currency of the United States.

"**Additional Interest**" shall have the meaning specified in Section 12.01(a).

"**Additional Note**" or "**Additional Notes**" shall have the meaning specified in Section 2.10.

"**Affiliate**" of any specified Person means 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 specified Person means the power to direct or cause the direction of 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 Members**" shall have the meaning specified in Section 2.05(b).

"**Applicable Procedures**" means, with respect to any conversion, transfer, exchange, redemption or repurchase of beneficial ownership interests in a Global Note, the rules and procedures of the Depositary, to the extent applicable to such conversion, transfer, exchange, redemption or repurchase.

"**Bankruptcy Law**" shall have the meaning specified in Section 6.01.

"**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 any day other than a day on which federal or state banking institutions in the Borough of Manhattan, the City of New York, or in the city of the Corporate Trust Office of the Trustee, are authorized or obligated by law, executive order or regulation to close.

"**Capital Stock**" of any Person means any and all shares, interests, rights to purchase, warrants, options, participations or other equivalents of or interests in (however designated) the equity of such Person, but excluding any debt securities convertible into such equity.

"**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.

"**Change of Control**" means the occurrence of any of the following events from and after the Issue Date:

(i) the acquisition by any "**person**", including any syndicate or group deemed to be a "person" under Section 13(d)(3) of the Exchange Act is or becomes the "**beneficial owner**" (as defined in Rule 13d-3 under the Exchange Act) of the 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 that person to exercise 50% or more of the total voting power of all shares of the Company's Voting Stock, other than (x) any acquisition by the Company, any Subsidiary or any of the Company's employee benefit plans; (y) any acquisition during the lifetime of Mann by Mann or his estate, by any trust where Mann is the trustee or grantor, by any not-for-profit entity where the acquisition is directed by Mann or by any entity wholly-owned by Mann or his estate; *provided* that the total beneficial ownership of all such Persons, together with the Persons in (z), does not exceed 70% or more of the total voting power of all shares of the Company's Voting Stock; and (z) any acquisition by any Person so long as the shares acquired by such Person are acquired directly from one of the Persons listed in (y) and no consideration is paid in connection with such acquisition;

(ii) the Company (A) recapitalizes, reclassifies or changes the Common Stock (other than changes resulting from a subdivision or combination) as a result of which the Common Stock would be converted into, or exchanged for, stock, other securities, other property or assets or (B) exchanges its shares of Common Stock with, consolidates with, or merges with or into, another Person or any Person exchanges its shares of common stock with, consolidates or merges with or into the Company, or (C) conveys, transfers, sells, leases or otherwise disposes of all or substantially all of its properties and assets to another Person, in each case other than (x) any transaction pursuant to which holders of the Company's Capital Stock immediately prior to the transaction have the entitlement to exercise, directly or indirectly, 50% or more of the total voting power of all shares of the Voting Stock of the continuing or surviving entity of such transaction; or (y) any merger solely for the purpose of changing the Company's jurisdiction of incorporation and resulting in a reclassification, conversion or exchange of outstanding shares of Common Stock solely into shares of common stock of the surviving entity traded or quoted on a U.S.

national securities exchange, and as a result of such merger the Notes become convertible into such shares; or

(iii) the Company's stockholders approve a plan of liquidation or dissolution.

Notwithstanding anything to the contrary set forth herein, a Change of Control will be deemed not to have occurred if, in the case of a merger or consolidation, at least 90% of the consideration (excluding cash payments for fractional shares and cash payments pursuant to dissenters' appraisal rights) in a transaction or transactions otherwise constituting a Change of Control consists of shares of common stock or American depository receipts traded or quoted on a U.S. national securities exchange, or which will be so traded or quoted when issued or exchanged in connection with the transaction or transactions, and as a result of the transaction or transactions the Notes become convertible solely into such consideration.

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

"**Commission**" means the Securities and Exchange Commission.

"**Common Stock"** means the shares of common stock of the Company, par value $0.01 per share, as it exists on the date of this Indenture or any other shares of Capital Stock of the Company into which the Common Stock shall be reclassified or changed.

"**Company**" means MannKind Corporation, a corporation duly organized and existing under the laws of the State of Delaware, until a successor Person shall have become such pursuant to the applicable provisions of this Indenture, and thereafter "Company" shall mean such successor Person.

"**Company Order**" means a written order of the Company, signed by the Company's Chief Executive Officer, Chief Financial Officer, President, Executive Vice President or any Vice President (whether or not designated by a number or numbers or word or words added before or after the title "Vice President"), Treasurer or Assistant Treasurer or Secretary or any Assistant Secretary, and delivered to the Trustee.

"**Conversion Agent**" means the office or agency designated by the Company pursuant to Section 4.05 where Notes may be presented for conversion.

"**Conversion Date**" shall have the meaning specified in Section 13.02(a).

"**Conversion Price**" per share of Common Stock as of any day means the result obtained by dividing (i) $1,000 by (ii) the then applicable Conversion Rate.

"**Conversion Rate**" means the rate at which shares of Common Stock shall be delivered upon conversion, which rate shall be initially 147.0859 shares of Common Stock for each $1,000 principal amount of Notes, as adjusted from time to time pursuant to the provisions of this Indenture.

"**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 333 S. Grand Avenue, 5th Floor, Suite 5A, Los Angeles, CA 90071. With respect to presentation of notes for payment, registration of transfer or exchange such office shall be 608 2nd Avenue South, Minneapolis, MN 55402, Attention: Bondholder Communications.

"**Custodian**" means Wells Fargo Bank, National Association, as custodian for The Depository Trust Company, with respect to the Global Notes, or any successor entity thereto.

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

"**Defaulted Interest**" means any interest on any Note that is payable, but is not punctually paid or duly provided for, on any February 15 or August 15.

"**Depositary**" means, with respect to the Global Notes, the Person specified in Section 2.05(c) as the Depositary with respect to such Notes, until a successor shall have been appointed and become such pursuant to the applicable provisions of this Indenture, and thereafter, "**Depositary**" shall mean or include such successor.

"**Designated Senior Debt**" means the principal of, premium, if any, interest on, including any interest accruing after the commencement of any bankruptcy or similar proceeding, whether or not a claim for postpetition interest is allowed as a claim in the proceeding, or termination payment with respect to or in connection with, and all fees, costs, expenses and other amounts accrued or due on or under or in respect of (a) (i) $20,000,000 aggregate principal amount of Tranche 1 notes issued and outstanding, (ii) $40,000,000 aggregate principal amount of Tranche 4 notes issued and outstanding and (iii) $20,000,000 aggregate principal amount of Tranche B notes issued and outstanding, in each case under the Facility Agreement dated as of July 1, 2013 (the "**Facility Agreement**") between the Company and the various purchasers named therein as amended by the first amendment thereto dated as of February 28, 2014 and the second amendment thereto dated as of August 11, 2014, as such notes and the Facility Agreement may be amended, modified, restated or supplemented from time to time and (b) up to $175,000,000 aggregate principal amount of indebtedness under the Senior Secured Revolving Promissory Note (the "**Loan Facility**") with Aventisub LLC, a Delaware limited liability company and affiliate of Sanofi-

Aventis Deutschland GmbH, as such note and the Loan Facility may be amended, modified, restated or supplemented from time to time.

"**DTC**" shall have the meaning specified in Section 2.05(c).

"**Ex-Dividend Date**" means, in respect of an issuance, a dividend or distribution to holders of Common Stock, the first date on which shares of Common Stock trade on the applicable exchange or in the applicable market, regular way, without the right to receive such issuance, dividend or distribution in question.

"**Exchange Act**" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

"**Exchange Settlement Property**" shall have the meaning specified in Section 13.14(b)

"**Expiration Date**" shall have the meaning specified in Section 13.06(e).

"**Expiration Time**" shall have the meaning specified in Section 13.06(e).

"**Event of Default**" shall have the meaning specified in Section 6.01.

"**Financial Institution**" shall have the meaning specified in Section 13.14(a).

"**Form of Assignment and Transfer**" shall mean the "Form of Assignment and Transfer" attached as Attachment 3 to the Form of Note attached hereto as Exhibit A.

"**Form of Fundamental Change Purchase Notice**" shall mean the "Form of Fundamental Change Purchase Notice" attached as Attachment 2 to the Form of Note attached hereto as Exhibit A.

"**Form of Note**" shall mean the "Form of Note" attached hereto as Exhibit A.

"**Form of Notice of Conversion**" shall mean the "Form of Notice of Conversion" attached as Attachment 1 to the Form of Note attached hereto as Exhibit A.

"**Fundamental Change**" means the occurrence of either a Change of Control or a Termination of Trading.

"**Fundamental Change Company Notice**" shall have the meaning specified in Section 15.01(b).

"**Fundamental Change Effective Date**" means the date on which any Fundamental Change becomes effective.

"**Fundamental Change Make-Whole Premium**" shall have the meaning specified in Section 13.01(e).

"**Fundamental Change Purchase Date**" shall have the meaning specified in Section 15.01(a).

"**Fundamental Change Purchase Notice**" shall have the meaning specified in Section 15.01(c).

"**Fundamental Change Purchase Price**" of any Note, means 100% of the principal amount of the Note to be repurchased plus unpaid interest, if any, accrued and unpaid to, but excluding, the Fundamental Change Purchase Date; *provided* that if the Fundamental Change Purchase Date is after a Regular Record Date and on or prior to the corresponding Interest Payment Date, the Fundamental Change Purchase Price shall not include any accrued and unpaid interest.

"**Global Note**" shall have the meaning specified in Section 2.05(b).

"**Holder**" or "**Holder of a Note**" means the person in whose name a Note is registered on the Note Registrar's books.

"**Indenture**" means this instrument as originally executed or, if amended or supplemented as herein provided, as so amended or supplemented.

"**Interest Payment Date**" means each February 15 and August 15 of each year, beginning on February 15, 2016; *provided*, *however*, that if any Interest Payment Date falls on a date that is not a Business Day, such payment of interest will be postponed until the next succeeding Business Day, and no interest or other amount will be paid as a result of such postponement.

"**Issue Date**" of any Note means the date on which the Note was originally issued or deemed issued as set forth on the face of the Note.

"**Last Reported Sale Price**" means on any Business Day or Trading Day, the reported last sale price per share of the Company's Common Stock (or if no last sale price is reported, the average of the bid and ask prices per share or, if more than one in either case, the average of the average bid and the average ask prices per share) on such date reported by the Nasdaq Global Market or, if the Company's Common Stock (or the applicable security) is not quoted on the Nasdaq Global Market, as reported by the principal national securities exchange on which the Company's Common Stock (or such other security) is listed, or if no such prices are available, the Last Reported Sale Price per share shall be the fair value of a share of Common Stock (or such other security) as reasonably

determined by the Board of Directors (which determination shall be conclusive and shall be evidenced by an Officer's Certificate delivered to the Trustee).

"**Make-Whole Fundamental Change**" means any Fundamental Change as described in the definition thereof, and determined after giving effect to any exceptions or exclusions to such definition, but without regard to clause (ii)(x) of the definition of Change of Control and excluding a Fundamental Change described under clause (iii) of the definition of Change of Control.

"**Make-Whole Fundamental Change Effective Date**" means the date on which any Make-Whole Fundamental Change becomes effective.

"**Make-Whole Fundamental Change Notice**" has the meaning specified in Section 13.01(e).

"**Mann**" means the individual Alfred E. Mann.

"**Market Disruption Event**" means (1) a failure by the primary exchange or quotation system on which the Common Stock trades or is quoted to open for trading during its regular trading session or (2) the occurrence or existence, prior to 1:00 p.m., New York City time, on any Trading Day for the Common Stock, of an aggregate one half-hour period of any suspension or limitation imposed on trading (by reason of movements in price exceeding limits permitted by the stock exchange or otherwise) in the Common Stock or in any options, contracts or future contracts relating to the Common Stock.

"**Maturity Date**" means August 15, 2018.

"**Nonpayment Default**" has the meaning set forth in Section 18.01(b)(ii).

"**Note**" or "**Notes**" shall have the meaning specified in the first "Whereas" clause of this Indenture.

"**Note Register**" shall have the meaning specified in Section 2.05(a).

"**Note Registrar**" shall have the meaning specified in Section 2.05(a).

"**Notice of Redemption**" has the meaning set forth in Section 14.03.

"**Officer**" means, with respect to the Company, the chairman of the Board of Directors, a chief executive officer, a president, a chief financial officer, chief operating officer, any executive vice president, any senior vice president, any vice president, the treasurer or any assistant treasurer, the controller or any assistant controller or the secretary or any assistant secretary.

"**Officer's Certificate**," means a certificate signed by any Officer. Each such certificate shall include the statements provided for in Section 17.05, if and to the extent required by the provisions thereof.

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

"**Opinion of Counsel**" means a written opinion, subject to customary exceptions, from legal counsel who is reasonably acceptable to the Trustee that is delivered to the Trustee in accordance with the terms hereof. The counsel may be an employee of or counsel to the Company or the Trustee. Each such opinion shall include the statements provided for in Section 17.05 if and to the extent required by the provisions thereof.

"**Outstanding**," when used with reference to Notes, shall, subject to the provisions of Section 8.04, mean, as of any particular time, all Notes authenticated and delivered by the Trustee under this Indenture, except:

(a) Notes theretofore canceled by the Trustee or accepted by the Trustee for cancellation;

(b) Notes that have been paid pursuant to Section 2.08 or Notes in lieu of which, or in substitution for which, other Notes shall have been authenticated and delivered pursuant to the terms of Section 2.06 unless proof satisfactory to the Trustee is presented that any such Notes are held by protected purchasers in due course; and

(c) Notes converted pursuant to Article 13.

"**Paying Agent**" means the office or agency designated by the Company pursuant to Section 4.05 where Notes may be presented for payment.

"**Payment Blockage Notice**" has the meaning set forth in Section 18.01(b) (ii).

"**Payment Default**" has the meaning set forth in Section 18.01(b)(i).

"**Person**" or "**person**" means any individual, corporation, partnership, limited liability company, joint venture, association, joint-stock company, trust, unincorporated organization, government or any agency or political subdivision thereof or any syndicate or group that would be deemed to be a "**person**" under Section 13(d)(3) of the Exchange Act or any other entity.

"**Predecessor Note**" of any particular Note means every previous Note evidencing all or a portion of the same debt as that evidenced by such particular Note; and, for the purposes of this definition, any Note authenticated and delivered under Section 2.06 in lieu of or in exchange for a mutilated, lost,

destroyed or stolen Note shall be deemed to evidence the same debt as the mutilated, lost, destroyed or stolen Note that it replaces.

"**Receiver**" shall have the meaning specified in Section 6.01.

"**Redemption Date**" shall have the meaning specified in Section 14.01(b).

"**Redemption Price**" shall have the meaning specified in Section 14.01(b).

"**Reference Property**" shall have the meaning specified in Section 13.10.

"**Regular Record Date**," with respect to any Interest Payment Date, shall mean the February 1 or August 1 (whether or not such day is a Business Day) immediately preceding such Interest Payment Date.

"**Resale Restriction Termination Date**" shall have the meaning specified in Section 2.05(c).

"**Responsible Officer**" means any officer within the corporate trust department of the Trustee, including any vice president, assistant vice president, assistant secretary, assistant treasurer, trust officer or any other officer of the Trustee who customarily performs 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 such Person's knowledge of and familiarity with the particular subject and who shall have direct responsibility for the administration of this Indenture.

"**Restricted Note**" means each Additional Note that is subject to transfer restrictions under the Securities Act (or other applicable securities laws), as determined by the Company.

"**Restricted Securities**" shall have the meaning specified in Section 2.05(c).

"**Rights**" means any common stock or preferred stock purchase right or warrant, as the case may be, that all or substantially all shares of Common Stock may be entitled to receive under a Rights Plan.

"**Rights Plan**" means any common stock or preferred stock rights plan or any similar plan adopted by the Company after the date hereof.

"**Rule 144**" means Rule 144 as promulgated under the Securities Act.

"**Rule 144A**" means Rule 144A as promulgated under the Securities Act.

"**Securities Act**" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

"**Special Interest**" shall have the meaning specified in Section 6.02.

"**Spin-Off**" shall have the meaning specified in Section 13.06(c).

"**Stock Price**" means the price paid or deemed to be paid per share of the Common Stock in connection with a Make-Whole Fundamental Change subject to adjustment as determined pursuant to Section 13.01(e).

"**Subsidiary**" means a corporation or other entity more than 50% of the outstanding Voting Stock of which is owned, directly or indirectly, by the Company or by one or more other Subsidiaries of the Company, or by the Company and one or more other Subsidiaries of the Company.

"**Termination of Trading**" means the occurrence of the Common Stock (or other common stock into which the Notes are convertible) not being listed for trading on a United States national securities exchange nor approved for listing on any United States system of automated dissemination of quotations of securities prices nor traded in over-the-counter securities markets and no American Depositary Shares or similar instruments for the Common Stock are so listed or approved for listing in the United States.

"**Trading Day**" means any day during which trading in the Common Stock generally occurs on the primary exchange or quotation system on which the Common Stock then trades or is quoted and there is no Market Disruption Event, unless the Common Stock is not so traded or quotes, in which case "**Trading Day**" means a Business Day.

"**transfer**" shall have the meaning specified in Section 2.05(c).

"**Trust Indenture Act**" means the Trust Indenture Act of 1939, as amended.

"**Trustee**" means the Person named as the "Trustee" in the first paragraph of this Indenture until a successor Trustee shall have become such pursuant to the applicable provisions of this Indenture, and thereafter "Trustee" shall mean or include each Person who is then a Trustee hereunder.

"**United States**" means the United States of America.

"**Valuation Period**" shall have the meaning specified in Section 13.06(c).

"**Voting Stock**" of a Person means all classes of Capital Stock or other interests (including partnership interests) of such Person then outstanding and

normally entitled (without regard to the occurrence of any contingency within the control of such person to satisfy) to vote in the election of directors, managers or trustees thereof.

Section 1.02. References to Interest. Any reference to the payment of interest on, or in respect of, any Note in this Indenture shall be deemed to include mention of the payment of Special Interest (if applicable) and Additional Interest (if applicable) if, in such context, Special Interest and Additional Interest, as applicable, was, or would be, payable pursuant to Section 6.01 and Section 12.01, respectively. An express mention of the payment of Special Interest (if applicable) or Additional Interest (if applicable) in any provision hereof shall not be construed as excluding Additional Interest or Special Interest, as applicable, in those provisions hereof where such express mention is not made.

ARTICLE 2
ISSUE, DESCRIPTION, EXECUTION, REGISTRATION AND EXCHANGE OF NOTES

Section 2.01. Designation and Amount. The Notes shall be designated as the "5.75% Convertible Senior Subordinated Exchange Notes due 2018." The aggregate principal amount of Notes that may be authenticated and delivered under this Indenture is initially limited to $27,690,000, subject to Section 2.10, and except for Notes authenticated and delivered upon registration or transfer of, or in exchange for, or in lieu of other Notes pursuant to Section 2.05, Section 2.06 and Section 2.07.

Section 2.02. Form of Notes. The Notes and the Trustee's certificate of authentication to be borne by such Notes shall be substantially in the respective forms set forth in Exhibit A, which are incorporated in and made a part of this Indenture.

Any of the Notes may have such letters, numbers or other marks of identification and such notations, legends or endorsements as the officer executing the same may approve (execution thereof to be conclusive evidence of such approval) 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 securities exchange or automated quotation system on which the Notes may be listed or designated for issuance, or to conform to usage or to indicate any special limitations or restrictions to which any particular Notes are subject.

The Global Note shall represent such principal amount of the Outstanding Notes as shall be specified therein and shall provide that it shall represent the aggregate principal amount of Outstanding Notes from time to time endorsed thereon and that the aggregate principal amount of Outstanding Notes represented

thereby may from time to time be increased or reduced to reflect purchases, conversions, transfers, exchanges or issuances of additional Notes permitted hereby. Any endorsement of the Global Note to reflect the amount of any increase or decrease in the amount of Outstanding Notes represented thereby shall be made by the Trustee or the Custodian, at the direction of the Trustee, in such manner and upon instructions given by the Holder of such Notes in accordance with this Indenture. Payment of principal (including any Fundamental Change Purchase Price or Redemption Price, as applicable) of, and accrued and unpaid interest, if any, on, the Global Note shall be made to the Holder of such Note on the date of payment, unless a record date or other means of determining Holders eligible to receive payment is provided for herein.

The terms and provisions contained in the Form of Note attached as Exhibit A hereto shall constitute, and are hereby expressly made, a part of this Indenture and, to the extent applicable, 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.

Section 2.03. Date and Denomination of Notes; Payments of Interest. The Notes shall be issuable in registered form without coupons in denominations of $1,000 principal amount and multiples thereof. Each Note shall be dated the date of its authentication and shall bear interest from the date of issuance of such Note or from the most recent date to which interest has been paid or duly provided for, to the date the principal amount of such Note is paid or deemed paid, as the case may be. Interest on the Notes shall be computed on the basis of a 360-day year comprised of twelve 30-day months.

The Person in whose name any Note (or its Predecessor Note) is registered on the Note Register 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 of the Paying Agent, which shall initially be the Corporate Trust Office of the Trustee as the Company's Paying Agent and Note Registrar. The Company shall pay interest on any Notes in certificated form (i) to the Person entitled thereto having an aggregate principal amount of $2,000,000 or less, by check mailed to such Person at the address set forth in the Note Register and (ii) to the Person entitled thereto having an aggregate principal amount of more than $2,000,000, either by check mailed to such Person or, upon application by such Person to the Note Registrar not later than the relevant Regular Record Date, by wire transfer in immediately available funds to such Person's account within the United States, which application and wire transfer instructions shall remain in effect until such Person notifies, in writing, the Note Registrar to the contrary.

Any Defaulted Interest shall forthwith cease to be payable to the Holder of such Note on the relevant Regular Record Date by virtue of its having been such

Holder, and such Defaulted Interest shall be paid by the Company, at its election in each case, as provided in clause (1) or (2) below:

(1) The Company may elect to make payment of any Defaulted Interest to the Persons in whose names the Notes (or their respective Predecessor Notes) 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 Note and the date of the proposed payment (which shall be not less than 20 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 Interest 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 Interest as in this clause provided. Thereupon the Company shall fix a special record date for the payment of such Defaulted Interest which shall be not more than fifteen days and not less than ten days prior to the date of the proposed payment, and not less than ten days after the receipt by the Trustee of the notice of the proposed payment. The Company shall promptly notify the Trustee in writing 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 Interest and the special record date therefor to be delivered, or in the case of Notes in certificated form, mailed, first-class postage prepaid, to each Holder at its address as it appears in the Note Register, not less than ten days prior to such special record date. Notice of the proposed payment of such Defaulted Interest and the special record date therefor having been so mailed, such Defaulted Interest shall be paid to the Persons in whose names the Notes (or their respective Predecessor Notes) are registered at the close of business on such special record date and shall no longer be payable pursuant to the following clause (2) of this Section 2.03.

(2) The Company may make payment of any Defaulted Interest in any other lawful manner not inconsistent with the requirements of any securities exchange or automated quotation system on which the Notes 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.

If the Company makes a distribution of property to holders of Common Stock that would be taxable to them as a dividend for United States federal income tax purposes and the Conversion Rate is increased, the Company may offset any withholding tax applicable to non-United States Holders against cash payments of interest payable on the Notes.

Section 2.04. Execution, Authentication and Delivery of Notes. The Notes shall be signed in the name and on behalf of the Company by the manual or facsimile signature of any Officer.

At any time and from time to time after the date of the execution and delivery of this Indenture, the Company may, in accordance with the terms of this Indenture, deliver additional Notes executed by the Company to the Trustee for authentication, together with a Company Order for the authentication and delivery of such Notes, and the Trustee in accordance with such Company Order shall authenticate and deliver such Notes, without any further action by the Company hereunder.

Only such Notes as shall bear thereon a certificate of authentication substantially in the form set forth on the Form of Note attached as Exhibit A hereto, executed manually by a Responsible Officer of the Trustee (or an authorized officer of an authenticating agent appointed by the Trustee), shall be entitled to the benefits of this Indenture or be valid or obligatory for any purpose. Such certificate of authentication executed by the Trustee (or such an authenticating agent) upon any Note executed by the Company shall be conclusive evidence that the Note so authenticated has been duly authenticated and delivered hereunder and that the Holder is entitled to the benefits of this Indenture.

All Notes shall be dated that date of their authentication.

In case any Officer of the Company who shall have signed any of the Notes shall cease to be such Officer before the Notes so signed shall have been authenticated and delivered by the Trustee, or disposed of by the Company, such Notes nevertheless may be authenticated and delivered or disposed of as though the Person who signed such Notes had not ceased to be such Officer of the Company; and any Note may be signed on behalf of the Company by such Person as, at the actual date of the execution of such Note, shall be an Officer of the Company, although at the date of the execution of this Indenture any such person was not such an Officer.

The Trustee shall have the right to decline to authenticate and deliver any Notes under this Indenture if the Trustee, being advised by counsel, determines that such action may not lawfully be taken or if the Trustee in good faith shall determine that such action would expose the Trustee to personal liability.

Section 2.05. Exchange and Registration of Transfer of Notes; Restrictions on Transfer; Depositary; Automatic Exchange. (a) The Company shall cause to be kept at the Corporate Trust Office a register (the register maintained in such office or in any other office or agency of the Company being herein sometimes collectively referred to as the "**Note Register**") in which,

subject to such reasonable regulations as it may prescribe, the Company shall provide for the registration of Notes and of transfers of Notes. The Note Register shall be in written form or in any form capable of being converted into written form within a reasonable period of time. The Trustee is hereby appointed "**Note Registrar**" for the purpose of registering Notes and transfers of Notes as herein provided. The Company may appoint a new Note Registrar without prior notice to Holders. The Company may appoint one or more co-registrars.

Upon surrender for registration of transfer of any Note to the Note Registrar or any co-registrar, and satisfaction of the requirements for such transfer set forth in this Section 2.05, the Company shall execute, and the Trustee shall authenticate and deliver, in the name of the designated transferee or transferees, one or more new Notes of any authorized denominations and of a like aggregate principal amount and bearing such restrictive legends as may be required by this Indenture.

Notes may be exchanged for other Notes of any authorized denominations and of a like aggregate principal amount, upon surrender of the Notes to be exchanged at any such office or agency maintained by the Company pursuant to Section 4.05. Whenever any Notes are so surrendered for exchange, the Company shall execute, and the Trustee shall authenticate and deliver, the Notes that the Holder making the exchange is entitled to receive, bearing registration numbers not contemporaneously outstanding.

All Notes presented or surrendered for registration of transfer or for exchange, purchase or conversion shall (if so required by the Company, the Trustee, the Note Registrar or any co-registrar) be duly endorsed, or be accompanied by a written instrument or instruments of transfer in form satisfactory to the Company and duly executed, by the Holder thereof or its attorney-in-fact duly authorized in writing.

No service charge shall be charged by the Company, the Trustee or the Notes Registrar to the Holder for any exchange or registration of transfer of Notes, but the Holder may be required by the Company, the Trustee, the Notes Registrar or otherwise to pay a sum sufficient to cover any tax, assessments or other governmental charges that may be imposed in connection therewith as a result of the name of the Holder of the new Notes issued upon such exchange or registration of transfer of Notes being different from the name of the Holder of the old Notes presented or surrendered for such exchange or registration of transfer.

None of the Company, the Trustee, the Note Registrar or any co-registrar shall be required to exchange or register a transfer of any Notes surrendered for conversion, redemption or repurchase except for any portion of that Note that is not being repurchased, redeemed or converted, as the case may be.

All Notes issued upon any registration of transfer or exchange of Notes in accordance with this Indenture shall be the valid obligations of the Company, evidencing the same debt, and entitled to the same benefits under this Indenture as the Notes surrendered upon such registration of transfer or exchange. For greater certainty, all Notes issued upon any registration of transfer or exchange of Notes will be issued as evidence of the same continuing indebtedness of the Company under this Indenture and in no circumstances is the Company obligated under the Indenture to repay the principal amount of the exchanged Notes by virtue of the registration of a transfer or exchange.

(b) So long as the Notes are eligible for book-entry settlement with the Depositary, unless otherwise required by law or except as provided in Section 2.05(c), all Notes shall be represented by one or more Notes in global form (each, a "**Global Note**") registered in the name of the Depositary or the nominee of the Depositary. The transfer and exchange of beneficial interests in a Global Note that does not involve the issuance of a Note in certificated form shall be effected through the Depositary (but not the Trustee or the Custodian) in accordance with this Indenture (including the restrictions on transfer set forth herein) and the procedures of the Depositary therefor. Members of, or participants in, the Depositary ("**Agent Members**") shall have no rights under this Indenture with respect to any Global Note held on their behalf by the Depositary, or the Trustee as its custodian, or under the Global Note, and the Depositary may be treated by the Company, the Trustee and any agent of the Company or the Trustee as the absolute owner of the Global Note 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 impair, as between the Depositary and its Agent Members, the operation of customary practices governing the exercise of the rights of any Holder.

(c) Every Additional Note that bears or is required under this Section 2.05(c) to bear the legend set forth in this Section 2.05(c) (together with any Common Stock issued upon conversion of the Additional Notes and required to bear a similar legend, the "**Restricted Securities**") shall be subject to the restrictions on transfer set forth in this Section 2.05(c) (including the legend set forth below), and the holder of each such Restricted Security, by such holder's acceptance thereof, agrees to be bound by all such restrictions on transfer. As used in this Section 2.05(c), the term "**transfer**" encompasses any sale, pledge, transfer or other disposition whatsoever of any Restricted Security.

Until the date (the "**Resale Restriction Termination Date**") that is the later of (i) the date that is one year after the date of issuance of any Restricted Note, or such shorter period of time as permitted by Rule 144 or any successor provision thereto, and (ii) such later date, if any, as may be required by applicable laws, any certificate evidencing such Restricted Note (and all securities issued in

exchange therefor or substitution thereof, and all shares of Common Stock, if any, issued upon conversion thereof, if applicable) shall bear a legend in substantially the following form (unless such Restricted Notes or shares of Common Stock, if any, have been transferred pursuant to a registration statement that has become or been declared effective under the Securities Act and that continues to be effective at the time of such transfer, pursuant to the exemption from registration provided by Rule 144 or any similar provision then in force under the Securities Act, or unless otherwise agreed by the Company in writing, with written notice thereof to the Trustee):

THE SALE OF THIS NOTE HAS NOT BEEN REGISTERED UNDER THE U.S. SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND ACCORDINGLY, THIS NOTE MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED EXCEPT AS SET FORTH IN THE FOLLOWING SENTENCE. BY ITS ACQUISITION HEREOF, OR OF A BENEFICIAL OWNERSHIP HEREIN, THE ACQUIRER: (I) REPRESENTS THAT IT, AND ANY ACCOUNT FOR WHICH IT IS ACTING, IS A "QUALIFIED INSTITUTIONAL BUYER" (WITHIN THE MEANING OF RULE 144A UNDER THE SECURITIES ACT) AND THAT IT EXERCISES SOLE INVESTMENT DISCRETION WITH RESPECT TO EACH SUCH ACCOUNT, AND (II) AGREES (1) THAT IT WILL NOT WITHIN THE LATER OF (X) ONE YEAR AFTER THE DATE OF ISSUANCE OF THIS NOTE AND (Y) 90 DAYS AFTER IT CEASES TO BE AN AFFILIATE (WITHIN THE MEANING OF RULE 144 UNDER THE SECURITIES ACT) OF MANNKIND CORPORATION (THE "COMPANY"), OFFER, RESELL, PLEDGE OR OTHERWISE TRANSFER THE NOTES EVIDENCED HEREBY, THE COMMON STOCK ISSUABLE UPON CONVERSION OF SUCH NOTES OR ANY BENEFICIAL OWNERSHIP HEREIN, EXCEPT: (A) TO THE COMPANY OR ANY SUBSIDIARY THEREOF; (B) UNDER A REGISTRATION STATEMENT THAT HAS BECOME EFFECTIVE UNDER THE SECURITIES ACT; (C) TO A PERSON THE SELLER REASONABLY BELIEVES IS A QUALIFIED INSTITUTIONAL BUYER (AS DEFINED IN RULE 144A UNDER THE SECURITIES ACT) THAT IS PURCHASING FOR ITS OWN ACCOUNT OR FOR THE ACCOUNT OF ANOTHER QUALIFIED INSTITUTIONAL BUYER AND TO WHOM NOTICE IS GIVEN THAT THE TRANSFER IS BEING MADE IN RELIANCE ON RULE 144A, ALL IN COMPLIANCE WITH RULE 144A (IF AVAILABLE); OR (D) UNDER ANY OTHER AVAILABLE EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT, INCLUDING RULE 144, IF AVAILABLE; AND (2) THAT IT WILL, PRIOR TO ANY TRANSFER OF THIS NOTE WITHIN THE LATER OF (X) SIX MONTHS (OR, IF THE COMPANY HAS NOT SATISFIED THE CURRENT PUBLIC INFORMATION REQUIREMENTS OF RULE 144, ONE YEAR) AFTER THE DATE OF ISSUANCE OF THIS NOTE AND (Y) 90 DAYS AFTER IT CEASES TO BE AN AFFILIATE (WITHIN THE MEANING OF RULE 144) OF THE

COMPANY, FURNISH TO THE TRUSTEE AND THE COMPANY SUCH CERTIFICATIONS, LEGAL OPINIONS OR OTHER INFORMATION AS THEY MAY REQUIRE AND MAY RELY UPON TO CONFIRM THAT SUCH TRANSFER IS BEING MADE PURSUANT TO AN EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND APPLICABLE STATE SECURITIES LAWS. IN ANY EVENT, NO AFFILIATE OF THE COMPANY MAY RESELL THIS NOTE OTHER THAN UNDER A REGISTRATION STATEMENT THAT HAS BECOME EFFECTIVE UNDER THE SECURITIES ACT OR PURSUANT TO AN EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT IN A TRANSACTION THAT RESULTS IN SUCH NOTE NO LONGER BEING "RESTRICTED SECURITIES" (AS DEFINED UNDER RULE 144). NO REPRESENTATION IS MADE AS TO THE AVAILABILITY OF ANY EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT. EACH PURCHASER AND TRANSFEREE OF A NOTE AND THE COMMON STOCK ISSUABLE UPON CONVERSION OF A NOTE WILL BE DEEMED TO HAVE REPRESENTED BY ITS PURCHASE AND HOLDING OF THE NOTE AND THE COMMON STOCK ISSUABLE UPON CONVERSION OF THE NOTE THAT (A) ITS PURCHASE AND HOLDING OF THE NOTE AND THE COMMON STOCK ISSUABLE UPON CONVERSION OF THE NOTE IS NOT MADE ON BEHALF OF OR WITH "PLAN ASSETS" OF ANY PLAN SUBJECT TO TITLE I OF ERISA, SECTION 4975 OF THE CODE OR ANY SIMILAR LAW OR (B) ITS PURCHASE AND HOLDING OF THE NOTE AND THE COMMON STOCK ISSUABLE UPON CONVERSION OF THE NOTE WILL NOT RESULT IN A NON-EXEMPT PROHIBITED TRANSACTION UNDER SECTION 406 OF ERISA, SECTION 4975 OF THE CODE OR ANY SIMILAR LAW.

Any Common Stock issued upon conversion of the Notes prior to the Resale Restriction Termination Date shall bear a similar legend.

No transfer of any Note prior to the Resale Restriction Termination Date will be registered by the Note Registrar unless the applicable box on the Form of Assignment and Transfer has been checked.

Notwithstanding anything to the contrary contained in this Indenture or any Restricted Note, such Restricted Note (or security issued in exchange or substitution therefor) (i) as to which such restrictions on transfer shall have expired in accordance with their terms, (ii) has been transferred pursuant to a registration statement that has become effective or been declared effective under the Securities Act and that continues to be effective at the time of such transfer or (iii) that has been sold pursuant to the exemption from registration provided by Rule 144 or any similar provision then in force under the Securities Act, may, upon surrender of such Restricted Note for exchange to the Note Registrar in

accordance with the provisions of this Section 2.05, be exchanged for a new Note or Notes, of like tenor and aggregate principal amount, which shall not bear the restrictive legend required by this Section 2.05(c). The Company shall be entitled to instruct the Trustee in writing to so surrender any Global Note as to which any of the conditions set forth in clause (i) through (iii) of the immediately preceding sentence have been satisfied, and, upon such instruction, the Trustee shall so surrender such Global Note for exchange; and any new Global Note so exchanged therefor shall not bear the restrictive legend specified in this Section 2.05(c) and shall not be assigned a restricted CUSIP.

Notwithstanding any other provisions of this Indenture (other than the provisions set forth in this Section 2.05(c)), a Global Note may not be transferred as a whole or in part except 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.

The Depositary shall be a clearing agency registered under the Exchange Act. The Company initially appoints The Depository Trust Company ("**DTC**") to act as Depositary with respect to the Global Note. Initially, the Global Notes shall be issued to the Depositary, registered in the name of Cede & Co., as the nominee of the Depositary, and deposited with the Trustee as custodian for DTC.

If (i) the Depositary notifies the Company at any time that the Depositary is unwilling or unable to continue as depositary for the Global Notes and a successor depositary is not appointed within 90 days, (ii) the Depositary ceases to be registered as a clearing agency under the Exchange Act and a successor depositary is not appointed within 90 days or (iii) an Event of Default with respect to the Notes has occurred and is continuing, upon the request of the beneficial owner of the Notes, the Company will execute, and the Trustee, upon receipt of an Officer's Certificate and a Company Order for the authentication and delivery of Notes, will authenticate and deliver Notes in definitive form to each such beneficial owner of the related Notes (or a portion thereof) in an aggregate principal amount equal to the principal amount of such Global Note, in exchange for such Global Note, and upon delivery of the Global Note to the Trustee such Global Note shall be canceled.

Notes in certificated form issued in exchange for all or a part of the Global Note pursuant to this Section 2.05(c) shall be registered in such names and in such authorized denominations as the Depositary, pursuant to instructions from its direct or indirect participants or otherwise, shall instruct the Trustee. Upon execution and authentication, the Trustee shall deliver such Notes in certificated form to the Persons in whose names such Notes are so registered.

At such time as all interests in a Global Note have been converted, canceled, redeemed, purchased or transferred, such Global Note shall be, upon receipt thereof, canceled by the Trustee in accordance with standing procedures and instructions existing between the Depositary and the Custodian. At any time prior to such cancellation, if any interest in a Global Note is exchanged for Notes in certificated form, converted, canceled, purchased or transferred to a transferee who receives Notes in certificated form therefor or any Note in certificated form is exchanged or transferred for part of such Global Note, the principal amount of such Global Note shall, in accordance with the standing procedures and instructions existing between the Depositary and the Custodian, be appropriately reduced or increased, as the case may be, and an endorsement shall be made on such Global Note, by the Trustee or the Custodian, at the direction of the Trustee, to reflect such reduction or increase.

None of the Company, the Trustee nor any agent of the Company or the Trustee will have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests of a Global Note or maintaining, supervising or reviewing any records relating to such beneficial ownership interests.

The Trustee shall have no obligation or duty to monitor, determine or inquire into compliance with any restriction on transfer imposed under the Indenture or applicable law with respect to any transfer of any Note (including any transfers between or among Depositaries or beneficial owners of interests in any Global Notes) other than to require delivery of such certificates and other documentation or evidence as are expressly required by, and to do so if and when expressly required by the terms of the Indenture, and to examine the same to determine substantial compliance as to form with the express requirements of the Indenture.

(d) The Company may cause the removal of the legends required by Sections 2.05(c) from any Global Note at any time on or after the Resale Restriction Date by: (i) instructing the Trustee to remove the such legends from such Global Note; (ii) providing to the Trustee and the Depositary written notice to change the CUSIP number for the Notes to the applicable unrestricted CUSIP number; and (iv) complying with any Applicable Procedures for delegending or otherwise exchanging such Global Note for a Global Note not bearing the restrictive legend (including DTC’s mandatory exchange process, if applicable); whereupon any legends otherwise required by Section 2.05(c) shall be removed from any Global Notes without any further action on the part of the Holders.

Section 2.06. Mutilated, Destroyed, Lost or Stolen Notes. In case any Note shall become mutilated or be destroyed, lost or stolen, the Company in its discretion may execute, and upon its written request the Trustee or an authenticating agent appointed by the Trustee shall authenticate and deliver, a

new Note, bearing a number not contemporaneously outstanding, in exchange and substitution for the mutilated Note, or in lieu of and in substitution for the Note so destroyed, lost or stolen. In every case the applicant for a substituted Note shall furnish to the Company, to the Trustee and, if applicable, to the authenticating agent, such security or indemnity as may be required by them to save each of them harmless from any loss, liability, cost or expense caused by or connected with such substitution, and, in every case of destruction, loss or theft, the applicant shall also furnish to the Company, to the Trustee and, if applicable, to the authenticating agent, evidence to their satisfaction of the destruction, loss or theft of such Note and of the ownership thereof.

The Trustee or the authenticating agent, if applicable, may authenticate any such substituted Note and deliver the same upon the receipt of such security or indemnity as the Trustee, the Company and, if applicable, the authenticating agent may require. Upon the issuance of any substitute Note, the Company or the Trustee may require the payment by the Holder of a sum sufficient to cover any tax, assessment or other governmental charge that may be imposed in relation thereto and any other expenses connected therewith. In case any Note that has matured or is about to mature or has been tendered for redemption or purchase upon a Fundamental Change or is about to be converted shall become mutilated or be destroyed, lost or stolen, the Company may, in its sole discretion, instead of issuing a substitute Note, pay or authorize the payment of or convert or authorize the conversion of the same (without surrender thereof except in the case of a mutilated Note), as the case may be, if the applicant for such payment or conversion shall furnish to the Company, to the Trustee and, if applicable, to the authenticating agent, such security or indemnity as may be required by them to save each of them harmless for any loss, liability, cost or expense caused by or connected with such substitution, and, in every case of destruction, loss or theft, evidence satisfactory to the Company, the Trustee and, if applicable, any Paying Agent or Conversion Agent evidence of their satisfaction of the destruction, loss or theft of such Note and of the ownership thereof.

Every substitute Note issued pursuant to the provisions of this Section 2.06 by virtue of the fact that any Note is destroyed, lost or stolen shall constitute an additional contractual obligation of the Company, whether or not the destroyed, lost or stolen Note shall be found at any time, and shall be entitled to all the benefits of (but shall be subject to all the limitations set forth in) this Indenture equally and proportionately with any and all other Notes duly issued hereunder. To the extent permitted by law, all Notes shall be held and owned upon the express condition that the foregoing provisions are exclusive with respect to the replacement or payment or conversion or purchase of mutilated, destroyed, lost or stolen Notes and shall preclude 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 or conversion of negotiable instruments or other securities without their surrender.

For greater certainty, every substitute Note issued pursuant to the provisions of this Section 2.06 by virtue of the fact that any Note is mutilated, destroyed, lost or stolen will be issued as evidence of the same continuing indebtedness of the Company under this Indenture and in no circumstances is the Company obligated under the Indenture to repay the principal amount of the substituted Note by virtue of such mutilation, destruction or loss.

Section 2.07. Temporary Notes. Pending the preparation of Notes in certificated form, the Company may execute and the Trustee or an authenticating agent appointed by the Trustee shall, upon written request of the Company, authenticate and deliver temporary Notes (printed or lithographed). Temporary Notes shall be issuable in any authorized denomination, and substantially in the form of the Notes in certificated form but with such omissions, insertions and variations as may be appropriate for temporary Notes, all as may be determined by the Company. Every such temporary Note shall be executed by the Company and authenticated by the Trustee or such authenticating agent upon the same conditions and in substantially the same manner, and with the same effect, as the Notes in certificated form. Without unreasonable delay, the Company will execute and deliver to the Trustee or such authenticating agent Notes in certificated form (other than any Global Note) and thereupon any or all temporary Notes (other than any Global Note) may be surrendered in exchange therefor, at each office or agency maintained by the Company pursuant to Section 4.05 and the Trustee or such authenticating agent shall authenticate and deliver in exchange for such temporary Notes an equal aggregate principal amount of Notes in certificated form. Such exchange shall be made by the Company at its own expense and without any charge therefor. Until so exchanged, the temporary Notes shall in all respects be entitled to the same benefits and subject to the same limitations under this Indenture as Notes in certificated form authenticated and delivered hereunder.

For greater certainty, each Note issued pursuant to the provisions of this Section 2.07 in exchange for a temporary Note will be issued as evidence of the same continuing indebtedness of the Company under this Indenture and in no circumstances is the Company obligated under the Indenture to repay the principal amount of the temporary Note by virtue of the exchange.

Section 2.08. Cancellation of Notes Paid, Etc. All Notes surrendered for the purpose of payment, purchase, conversion, exchange or registration of transfer, shall, if surrendered to the Company or any Paying Agent or any Note Registrar or any Conversion Agent, be surrendered to the Trustee and promptly canceled by it, or, if surrendered to the Trustee, shall be promptly canceled by it, and no Notes shall be issued in lieu thereof except as expressly permitted by any of the provisions of this Indenture. The Trustee shall dispose of canceled Notes in accordance with its customary procedures and, after such disposition, shall deliver a written confirmation of such disposition to the Company, at the Company’s

written request. If the Company shall acquire any of the Notes, such acquisition shall not operate as satisfaction of the indebtedness represented by such Notes unless and until the same are delivered to the Trustee for cancellation.

Section 2.09. CUSIP and ISIN Numbers. The Company in issuing the Notes may use "CUSIP" and "ISIN" numbers (if then generally in use), and, if so, the Trustee shall use "CUSIP" and "ISIN" numbers in all notices issued to Holders of the Notes as a convenience to such 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 Notes or on such notice and that reliance may be placed only on the other identification numbers printed on the Notes. The Company will promptly notify the Trustee in writing of any change in the "CUSIP" or "ISIN" numbers.

Section 2.10. Additional Notes; Purchases. The Company may, without the consent of the Holders of the Notes and notwithstanding Section 2.01, issue additional Notes hereunder ("**Additional Notes**") which shall have substantially identical terms as the Notes, other than with respect to (i) the date of issuance, (ii) the issue price and principal amount, (iii) the initial date from which interest begins to accrue and (iv) if applicable, the existence of "transfer" restrictions pursuant to the Securities Act; provided, further, that no Additional Notes may be issued with the same "CUSIP" or "ISIN" number as other Notes unless it is so permitted in accordance with applicable law and such Additional Notes are fungible with the Notes for U.S. federal tax and securities law purposes. The Notes issued on the Issue Date and any Additional Notes shall be treated as a single class for all purposes under this Indenture. With respect to any Additional Notes, the Company shall set forth in an Officer's Certificate, a copy of which shall be delivered to the Trustee, and in a supplemental indenture, the following information: (1) the aggregate principal amount of Notes outstanding immediately prior to the issuance of such Additional Notes; (2) the issue price, if any, the aggregate principal amount of such Additional Notes to be authenticated and delivered pursuant to this Indenture and the issue date of such Additional Notes; (3) the "CUSIP" or "ISIN" number, as applicable, of such Additional Notes; and (4) whether such Additional Notes will be Restricted Securities.

The Company may also from time to time purchase the Notes in open market purchases or negotiated transactions without prior notice to Holders. Any Notes purchased by the Company shall be deemed to be no longer Outstanding under this Indenture.

ARTICLE 3
SATISFACTION AND DISCHARGE

Section 3.01. Satisfaction and Discharge. This Indenture shall upon request of the Company contained in an Officer's 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) the Company delivers to the Trustee all Outstanding Notes (other than Notes replaced pursuant to Section 2.06) for cancellation; or (ii) the Company has irrevocably deposited with the Trustee or delivered to Holders of Notes, as applicable, after the Notes have become due and payable, whether at the Maturity Date, or any Fundamental Change Purchase Date, or upon conversion or otherwise, cash and/or (in the case of conversion) shares of Common Stock (together with cash in lieu of fractional shares), as applicable, sufficient to pay all of the Outstanding Notes and all other sums payable under this Indenture by the Company; and (b) the Company has delivered to the Trustee an Officer's 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 7.06 shall survive such satisfaction and discharge.

Section 3.02. Deposited Monies To Be Held In Trust. Subject to Section 3.03 hereof, all monies deposited with the Trustee pursuant to Section 3.01 hereof shall be held in trust and applied by it to the payment, either directly or through any Paying Agent (including the Company if acting as its own Paying Agent), to the Holders for the payment or repurchase of which such monies have been deposited with the Trustee, of all sums due and to become due thereon for principal, premium, if any, and interest. All monies deposited with the Trustee pursuant to Section 3.01 hereof (and held by it or any Paying Agent) for the payment of Notes subsequently converted shall be returned to the Company upon request of the Company.

Section 3.03. Return Of Unclaimed Monies. Subject to applicable escheat laws, the Trustee and the Paying Agent shall pay to the Company upon written request any money held by them for the payment of principal of or accrued and unpaid interest on the Notes that remains unclaimed for two years after the date upon which such payment shall have become due. Notwithstanding the foregoing, the Trustee and Paying Agent shall have the right to withhold payment of such money to the Company until the Trustee or Paying Agent at the expense of the Company mails to each Holder, a notice stating that such money shall be repaid to the Company if unclaimed after a date no less than 30 days from the mailing. After payment to the Company by the Trustee or Paying Agent, all liability of the Trustee and the Paying Agent with respect to such money shall cease, and Holders

entitled to the money must look to the Company for payment as general creditors, subject to applicable law.

ARTICLE 4
PARTICULAR COVENANTS OF THE COMPANY

Section 4.01. Payment of Principal and Interest. (a) The Company shall promptly make all payments in respect of the Notes on the dates and in the manner provided in the Notes and this Indenture. A payment of principal or interest shall be considered paid on the date it is due if the Paying Agent holds by 10:00 a.m. (New York City time) on that date money or securities, deposited by or on behalf of the Company sufficient to make the payment. The Company shall, to the fullest extent permitted by law, pay interest in immediately available funds on overdue principal amount and interest at the annual rate borne by the Notes compounded semiannually, which interest shall accrue from the date such overdue amount was originally due to the date payment of such amount, including interest thereon, has been made or duly provided for. All such interest shall be payable on demand.

(b) Payment of the principal of and interest, if any, on the Notes shall be made at the office or agency of the Company maintained for that purpose, which shall initially be at the Trustee's Corporate Trust Office, in such coin or currency of the United States of America as at the time of payment is legal tender for payment of public and private debts; provided, however, that, subject to Section 2.03, the Company may pay principal and interest in respect of any Note in certificated form by check or wire transfer payable in such money. Notwithstanding the foregoing, so long as the Notes are registered in the name of a Depositary or its nominee, all payments thereon shall be made by wire transfer of immediately available funds to the account of the Depositary or its nominee.

Section 4.02. Corporate Existence. Subject to Article 10 hereof, the Company will do or cause to be done all things necessary to preserve and keep in full force and effect its corporate existence and rights (charter and statutory); provided, however, that the Company shall not be required to preserve any such right or franchise if the Company determines that the preservation thereof is no longer desirable in the conduct of the business of the Company and that the loss thereof is not disadvantageous in any material respect to the Holders.

Section 4.03. Rule 144A Information Requirement and Reports. (a) At any time the Company is not subject to Sections 13 or 15(d) of the Exchange Act, the Company shall, so long as any of the Notes or any shares of Common Stock issuable upon conversion thereof shall, at such time, constitute "restricted securities" within the meaning of Rule 144(a)(3) under the Securities Act, upon written request, provide to any Holder, beneficial owner or prospective purchaser

of such Notes or any shares of Common Stock issued upon conversion of such Notes, the information required to be delivered pursuant to Rule 144A(d)(4) under the Securities Act to facilitate the resale of such Notes or shares of Common Stock pursuant to Rule 144A under the Securities Act.

(b) The Company shall furnish to the Trustee within 15 calendar days after the Company is required to file any documents or reports with the Commission pursuant to Sections 13 or 15(d) of the Exchange Act (giving effect to all applicable grace periods provided under the Exchange Act including that provided by Rule 12b-25 under the Exchange Act) copies of such documents or reports. Any such document or report that the Company files with the Commission through the Commission's EDGAR system shall be deemed furnished to the Trustee for purposes of this Section 4.03(b) at the time such documents are filed or furnished via the Commission's EDGAR system, *provided* that the Trustee shall have no responsibility for determining whether such filing has taken place, nor shall the Trustee have any liability for the timeliness or content of any filing or report hereunder.

Section 4.04. Compliance Certificate. The Company shall deliver to the Trustee, within 120 days after the end of each fiscal year of the Company (beginning with the fiscal year ending December 31, 2015) an Officer's Certificate stating whether or not, to the knowledge of such officer, the Company is in default in the performance and observance of any of the terms, provisions and conditions of this Indenture and, if the Company shall be in default, specifying all such defaults and the nature and status thereof of which they may have knowledge. Within five Business Days of an Officer of the Company coming to have actual knowledge of a Default or Event of Default, regardless of the date, the Company shall deliver an Officer's Certificate to the Trustee specifying such Default or Event of Default and the nature and status thereof.

Section 4.05. Maintenance of Office or Agency. So long as any Notes remain Outstanding, the Company agrees to maintain an office or agency with respect to such Notes and at such other location or locations as may be designated as provided in this Section 4.05, where (i) Notes may be presented for conversion ("**Conversion Agent**"), (ii) Notes may be presented for payment ("**Paying Agent**"), (ii) Notes 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 Notes 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 any officer authorized to sign an Officer's Certificate and delivered to the Trustee, designate some other office or agency 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 initially appoints the Corporate Trust Office of the Trustee as Conversion Agent and Paying Agent with respect to the Notes.

Section 4.06. Paying Agents. (a) If the Company shall appoint one or more paying agents for the Notes, 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 4.06:

(i) 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 Notes (whether such sums have been paid to it by the Company or by any other obligor of such Notes) in trust for the benefit of the Persons entitled thereto;

(ii) that it will give the Trustee notice of any failure by the Company to make any payment of the principal of (and premium, if any) or interest on the Notes when the same shall be due and payable;

(iii) that it will, at any time during the continuance of any failure referred to in the preceding paragraph (a)(ii) above, upon the written request of the Trustee, forthwith pay to the Trustee all sums so held in trust by such paying agent; and

(iv) 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 Notes, it will on or before each due date of the principal of (and premium, if any) or interest on the Notes, 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 Notes 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 to take such action. The Trustee shall have no liability or responsibility for the action or inaction of any Paying Agent (that is not the Trustee).

(c) Notwithstanding anything in this Section 4.06 to the contrary, (i) the agreement to hold sums in trust as provided in this Section 4.06 is subject to the provisions of Section 3.02 and Section 3.03, and (ii) 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 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 the

Company or any paying agent to the Trustee, the Company or such paying agent shall be released from all further liability with respect to such money.

Section 4.07. 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 7.10, a Trustee, so that there shall at all times be a Trustee hereunder.

ARTICLE 5
HOLDERS' LISTS AND REPORTS BY THE COMPANY AND THE TRUSTEE

Section 5.01. Company to Furnish Trustee Names and Addresses of Holders. The Company will furnish or cause to be furnished to the Trustee (a) within 10 days after each Regular Record Date, a list, in such form as the Trustee may reasonably require, of the names and addresses of the Holders 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 (b) 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 Notes for which the Trustee shall be the Note Registrar.

Section 5.02. Preservation Of Information; Communications With Holders.

(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 Notes 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 Notes received by the Trustee in its capacity as Note 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) The rights of Holders to communicate with other Holders with respect to their rights under this Indenture or under the Notes, and the corresponding rights and duties of the Trustee, shall be as provided by the Trust Indenture Act.

(d) Every Holder, by receiving and holding the same, agrees with the Company and the Trustee that neither the Company nor the Trustee nor any agent of either of them shall be held accountable by reason of any disclosure of

information as to names and addresses of Holders made pursuant hereto or otherwise in accordance with the Trust Indenture Act.

Section 5.03. Reports by the Trustee.

(a) On or before July 1 in each year, commencing July 1, 2016, in which any of the Notes are Outstanding, the Trustee shall transmit by mail, first class postage prepaid or in accordance with Applicable Procedures, to the Holders, as their names and addresses appear upon the Note Register, a brief report dated as of the preceding May 1, 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 Holders, be filed by the Trustee with the Company, with each securities exchange upon which any Notes are listed (if so listed) and also with the Securities and Exchange Commission. The Company agrees to notify the Trustee when any Notes become listed on any securities exchange.

ARTICLE 6
DEFAULT AND REMEDIES

Section 6.01. Events of Default. An "**Event of Default**" shall occur when any of the following occurs:

(a) the Company fails to pay when due the principal of or premium, if any, on any of the Notes at the Maturity Date, upon repurchase, redemption, acceleration or otherwise; or

(b) the Company fails to pay an installment of interest on any of the Notes for 30 days after the date when due; or

(c) the Company fails to deliver when due all shares of Common Stock, together with cash instead of fractional shares, and/or other property, if applicable, deliverable upon conversion of the Notes pursuant to Article 13, which failure continues for 10 days; or

(d) the Company fails to perform or observe any other term, covenant or agreement contained in the Notes or this Indenture for a period of 60 days after written notice of such failure, requiring the Company to remedy the same, shall have been given to the Company by the Trustee or to the Company and the Trustee by the Holders of at least 25% in aggregate principal amount of the then-Outstanding Notes; or

(e) (i) the Company fails to make any payment by the end of the applicable grace period, if any, after the maturity of any indebtedness for borrowed money in an amount in excess of $25,000,000 or (ii) there is an acceleration of any indebtedness for borrowed money in an amount in excess of $25,000,000 because of a default with respect to such indebtedness without such indebtedness having been discharged or such acceleration having been cured, waived, rescinded or annulled, in the case of either (i) or (ii) above, for a period of 30 days after written notice to the Company by the Trustee or to the Company and the Trustee by Holders of at least 25% in aggregate principal amount of the then-Outstanding Notes; or

(f) the Company fails to provide a Fundamental Change Company Notice in accordance with Section 15.01; or

(g) a court having jurisdiction enters a decree or order under any Bankruptcy Law that: (i) for relief against the Company in an involuntary case or proceeding; or adjudicates the Company bankrupt or insolvent; or (ii) appoints a Receiver of the Company or of any substantial part of its property; or (iii) orders the winding up or liquidation of the Company, and (iv) the decree or order remains unstayed and in effect for a period of 90 days; or

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

(i) commences as a debtor a voluntary case or proceeding;

(ii) consents to the entry of an order for relief against it in an involuntary case or proceeding or the commencement of any case against it;

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

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

(v) files a petition in bankruptcy or answer or consent seeking reorganization or relief; or

(vi) consents to the filing of such a petition or the appointment of or taking possession by a Receiver.

The term "**Bankruptcy Law**" means Title 11 of the United States Code (or any successor thereto) or any similar federal or state law for the relief of debtors. The term "**Receiver**" means any receiver, trustee, assignee, liquidator, sequestrator or similar official under any Bankruptcy Law.

Section 6.02. Acceleration of Maturity; Rescission and Annulment. If an Event of Default with respect to Outstanding Notes (other than an Event of Default specified Section 6.01(g) or 6.01(h) hereof in respect of the Company) occurs and is continuing, the Trustee or the Holders of at least 25% in aggregate principal amount of the then-Outstanding Notes, by written notice to the Trustee, may declare the Notes due and payable at their principal amount plus any accrued and unpaid interest, and thereupon the Trustee may, at its discretion, proceed to protect and enforce the rights of the Holders by the appropriate judicial proceedings. Such declaration may be rescinded and annulled with the written consent of the Holders of a majority in aggregate principal amount of the then-Outstanding Notes, subject to the provisions of this Indenture.

If an Event of Default specified in Section 6.01(g) or 6.01(h) hereof occurs and is continuing, then all unpaid principal of and accrued and unpaid interest on the Outstanding Notes shall become immediately due and payable, without any declaration or other act on the part of the Trustee or any Holder.

Notwithstanding the foregoing, at the election of the Company, the sole remedy for an Event of Default specified in Section 6.01(d) relating to the failure by the Company to comply with its reporting obligations under Section 4.03 and for any failure to comply with the requirements of Section 314(a)(1) of the Trust Indenture Act, shall (i) for the first 90 days after the occurrence of such an Event of Default, consist exclusively of the right to receive special interest on Notes (the "**Special Interest**") at an annual rate equal to 0.25% of the principal amount of the Outstanding Notes, and (ii) for the next 90 days after the expiration of such 90 day period, consist exclusively of the right to receive Special Interest on the Notes at an annual rate equal to 0.50% of the principal amount of the Outstanding Notes.

The Special Interest shall be paid semi-annually in arrears, with the first semi-annual payment due on the first Interest Payment Date following the date on which the Special Interest began to accrue on any Notes. The Special Interest will accrue on all Outstanding Notes from and including the date on which an Event of Default relating to a failure to comply with the reporting obligations under Section 4.03 or a failure to comply with the requirements of Section 314(a)(1) of the Trust Indenture Act first occurs to but not including the 180th day thereafter (or such earlier date on which the Event of Default relating to such reporting obligations shall have been cured or waived). On such 180th day (or earlier, if such Event of Default is cured or waived pursuant to Section 6.04 prior to such 180th day), such Special Interest will cease to accrue and, if such Event of Default relating to such reporting obligations has not been cured or waived prior to such 180th day the Notes shall be subject to acceleration as provided above in this Section 6.02. The provisions described in this paragraph shall not affect the rights of the Holders in the event of the occurrence of any other Event of Default. In the event the Company does not elect to pay Special Interest upon an Event of Default in accordance with this paragraph, the Notes will be subject to

acceleration as provided in this Section 6.02. If the Company elects to pay Special Interest as the sole remedy for an Event of Default specified in Section 6.01(d) relating to the failure by the Company to comply with its obligations under Section 4.03 or any failure to comply with the requirements of Section 314(a)(1) of the Trust Indenture Act, the Company shall notify in writing, in the manner provided for in Section 17.03, the Holders and the Trustee of such election at any time on or before the close of business on the date on which such Event of Default first occurs.

The Holders of a majority in aggregate principal amount of the then-Outstanding Notes by written notice to the Trustee may rescind and annul an acceleration and its consequences if:

(1) all existing Events of Default, other than the nonpayment of principal (including the Redemption Price and the Fundamental Change Purchase Price, if applicable) of or interest on the Notes which has become due solely because of the acceleration, have been remedied, cured or waived, and

(2) the rescission would not conflict with any judgment or decree of a court of competent jurisdiction;

provided, however, that in the event such declaration of acceleration has been made based on the existence of an Event of Default under Section 6.01(e) hereof and such Event of Default has been remedied, cured or waived in accordance with Section 6.01(e) hereof, then, without any further action by the Holders, such declaration of acceleration shall be rescinded automatically and the consequences of such declaration shall be annulled. No such rescission or annulment shall affect any subsequent Default or impair any right consequent thereon.

Section 6.03. Other Remedies. If an Event of Default with respect to Outstanding Notes occurs and is continuing, the Trustee may pursue any available remedy by proceeding at law or in equity to collect the payment of principal of or interest on the Notes or to enforce the performance of any provision of the Notes. 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.

Section 6.04. Waiver of Past Defaults. The Holders, either (a) through the written consent of not less than a majority in aggregate principal amount of the Notes then Outstanding or (b) by the adoption of a resolution, at a meeting of Holders of the Notes then Outstanding at which a quorum is present, by the Holders of at least a majority in aggregate principal amount of the Outstanding Notes represented at such meeting, may, on behalf of the Holders of all of the Notes, waive an existing Default or Event of Default, except a Default or Event of Default:

(1) in the payment of the principal of or premium, if any, or interest on any Note;

(2) in respect of the right to convert any Note in accordance with Article 13; or

(3) in respect of the covenants or provisions hereof which, under Section 9.02 hereof, cannot be modified or amended without the consent of the Holder of each Outstanding Note affected.

Upon any such waiver, such Default shall cease to exist, and any Event of Default arising therefrom shall be deemed to have been cured, for every purpose of this Indenture; provided, however, that no such waiver shall extend to any subsequent or other Default or impair any right consequent thereon.

Section 6.05. Control by Majority. The Holders, either (a) through the written consent of not less than a majority in aggregate principal amount of the Notes then Outstanding, or (b) by the adoption of a resolution, at a meeting of Holders of the Notes then Outstanding at which a quorum is present, by the Holders of at least a majority in aggregate principal amount of the Outstanding Notes represented at such meeting, 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, subject to the provisions of this Indenture. However, the Trustee may refuse to follow any direction that:

(a) conflicts with any law or with this Indenture,

(b) the Trustee determines may be unduly prejudicial to the rights of the Holders not joining therein, or

(c) in the Trustee's reasonable judgment may expose the Trustee to personal liability.

The Trustee may take any other action deemed proper by the Trustee which is not inconsistent with such direction.

Section 6.06. Limitation On Suit. No Holder of any Note may pursue any remedy with respect to this Indenture or the Notes (including instituting any proceeding, judicial or otherwise, with respect to this Indenture or for the appointment of a receiver or trustee), except, in the case of a Default or Event of Default in the payment of the principal of or premium on, if any, or interest on the Notes unless:

(a) such Holder has previously given written notice to the Trustee of an Event of Default that is continuing;

(b) the Holders of at least 25% in aggregate principal amount of the Notes then Outstanding shall have made a written request to the Trustee, and shall have offered to the Trustee indemnity satisfactory to the Trustee, to pursue the remedy;

(c) no direction inconsistent with such written request has been given to the Trustee by the Holders of a majority in aggregate principal amount of the Notes then Outstanding (or such amount as shall have acted at a meeting pursuant to the provisions of this Indenture);

(d) such Holder or Holders have offered the Trustee security or indemnity satisfactory to the Trustee against any costs, liabilities or expenses incurred in complying with such request; and

(e) the Trustee has failed to comply with the request for 60 days after the receipt of such request and an offer of indemnity.

A Holder of Notes may not use this Indenture to prejudice the rights of another Holder of Notes or to obtain a preference or priority over another Holder of Notes (it being understood that the Trustee does not have an affirmative duty to ascertain whether or not such actions or forbearances are unduly prejudicial to such Holders).

Section 6.07. Unconditional Rights of Holders to Receive Payment and to Convert. In addition to the other rights and remedies set forth in this Article 6, the following shall apply with respect to the Notes under this Indenture.

Notwithstanding any other provision in this Indenture, the Holder of any Note shall have the right, which is absolute and unconditional, to receive payment of the principal amount (including the Redemption Price and the Fundamental Change Purchase Price, if applicable), interest and Fundamental Change Make-Whole Premium, if any, in respect of the Notes held by such Holder, on or after the respective due dates expressed in the Notes and this Indenture, and to convert such Note in accordance with Article 13, and to bring suit for the enforcement of any such payment on or after such respective due dates or for the right to convert in accordance with Article 13, and shall not be impaired or affected without the consent of such Holder.

Section 6.08. Collection of Indebtedness and Suits For Enforcement By the Trustee. The Company covenants that if an Event of Default occurs under Section 6.01(a) or Section 6.01(b), then the Company shall, upon demand of the Trustee, pay to it, for the benefit of the Holders of such Notes, the whole amount then due and payable (as expressed therein or as a result of any acceleration effected pursuant to Section 6.02 hereof) on such Notes for principal (including the Redemption Price and Fundamental Change Purchase Price, if applicable) and premium, if any, and interest and, to the extent that payment of such interest shall

be legally enforceable, interest on any overdue principal (including the Redemption Price and the Fundamental Change Purchase Price, if applicable) and premium, if any, and on any overdue interest, in each case at the rate borne by the Notes from the required payment date, and, in addition thereto, such further amount as shall be sufficient to cover the costs and expenses of collection, including the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel.

If the Company fails to pay such amounts forthwith upon such demand, the Trustee, in its own name and as trustee of an express trust, may institute a judicial proceeding for the collection of the sums so due and unpaid, may prosecute such proceeding to judgment or final decree and may enforce the same against the Company and collect the moneys adjudged or decreed to be payable in the manner provided by law out of the property of the Company, wherever situated.

If an Event of Default occurs and is continuing, the Trustee may in its discretion proceed to protect and enforce its rights and the rights of the Holders of Notes by such appropriate judicial proceedings as the Trustee shall deem most effectual to protect and enforce any such rights, whether for the specific enforcement of any covenant or agreement in this Indenture or in aid of the exercise of any power granted herein, or to enforce any other proper remedy.

Section 6.09. Trustee May File Proofs of Claim. In case of the pendency of any receivership, insolvency, liquidation, bankruptcy, reorganization, arrangement, adjustment, composition or other judicial proceeding relative to the Company or the property of the Company or its creditors, the Trustee (irrespective of whether the principal of the Notes shall then be due and payable as therein expressed or by declaration or otherwise and irrespective of whether the Trustee shall have made any demand on the Company for the payment of overdue principal or interest) shall be entitled and empowered, by intervention in such proceeding or otherwise, (1) to file and prove a claim for the whole amount of principal (including the Redemption Price and the Fundamental Change Purchase Price, if applicable) and premium, if any, and interest owing and unpaid in respect of the Notes and to file such other papers or documents as may be necessary or advisable in order to have the claims of the Trustee (including any claim for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, and any other amounts due to the Trustee hereunder) and of the Holders of Notes allowed in such judicial proceeding, and (2) to collect and receive any moneys or other property payable or deliverable on any such claim and to distribute the same; and any custodian, receiver, assignee, trustee, liquidator, sequestrator or other similar official in any such judicial proceedings is hereby authorized by each Holder of Notes to make such payments to the Trustee and, in the event that the Trustee shall consent to the making of such payments directly to the Holders of Notes, to pay to the Trustee any amount due to it for the

reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel and any other amounts due the Trustee under this Indenture.

Nothing contained herein shall be deemed to authorize the Trustee to authorize or consent to or accept, or adopt on behalf of any Holder of a Note, any plan of reorganization, arrangement, adjustment or composition affecting the Notes or the rights of any Holder thereof or to authorize the Trustee to vote in respect of the claim of any Holder of a Note in any such proceeding.

Section 6.10. Restoration of Rights and Remedies. If the Trustee or any Holder of a Note has instituted any proceeding to enforce any right or remedy under this Indenture and such proceeding has been discontinued or abandoned for any reason, or has been determined adversely to the Trustee or to such Holder, then and in every such case, subject to any determination in such proceeding, the Company, the Trustee and the Holders of Notes shall be restored severally and respectively to their former positions hereunder and thereafter all rights and remedies of the Trustee and the Holders shall continue as though no such proceeding had been instituted.

Section 6.11. Rights and Remedies Cumulative. Except as otherwise provided with respect to the replacement or payment of mutilated, destroyed, lost or stolen Notes in Section 2.05(d), no right or remedy conferred in this Indenture upon or reserved to the Trustee or to the Holders of Notes is intended to be exclusive of any other right or remedy, and every right and remedy shall, to the extent permitted by law, be cumulative and in addition to every other right and remedy given hereunder or hereafter existing at law or in equity or otherwise. The assertion or employment of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other appropriate right or remedy.

Section 6.12. Delay or Omission Not Waiver. No delay or omission of the Trustee or of any Holder of any Note to exercise any right or remedy accruing upon any Event of Default shall impair any such right or remedy or constitute a waiver of any such Event of Default or any acquiescence therein. Every right and remedy given by this Article or by law to the Trustee or to the Holders of Notes may be exercised from time to time, and as often as may be deemed expedient, by the Trustee or by the Holders of Notes, as the case may be.

Section 6.13. Application of Money Collected. Any money and property collected by the Trustee pursuant to this Article 6 shall be applied in the following order, at the date or dates fixed by the Trustee and, in case of the distribution of such money and property on account of principal (including the Redemption Price and the Fundamental Change Purchase Price, if applicable) or premium, if any, or interest, upon presentation of the Notes and the notation thereon of the payment if only partially paid and upon surrender thereof if fully paid:

FIRST: To the payment of all amounts due the Trustee, including its agents and counsel;

SECOND: To the payment of the amounts then due and unpaid for principal (including the Redemption Price and the Fundamental Change Purchase Price, if applicable) of and premium, if any, and interest on the Notes and coupons 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 Notes for principal (including the Redemption Price and the Fundamental Change Purchase Price, if applicable) and premium, if any, and interest, respectively; and

THIRD: Any remaining amounts shall be repaid to the Company.

Section 6.14. Undertaking For Costs. All parties to this Indenture agree, and each Holder of any Note 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, suffered 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 6.14 shall not apply to any suit instituted by the Company, to any suit instituted by the Trustee, to any suit instituted by any Holder, or group of Holders, holding in the aggregate more than 10% in aggregate principal amount of the Notes then Outstanding, or to any suit instituted by any Holder of any Note for the enforcement of the payment of the principal (including the Redemption Price and the Fundamental Change Purchase Price, if applicable) of or premium, if any, or interest on any Note on or after the stated maturity expressed in such Note (or in the case of a redemption, on or after the Redemption Date or, in the case of exercise of a repurchase right in connection with a Fundamental Change, on or after the Fundamental Change Purchase Date) or for the enforcement of the right to convert any Note in accordance with Article 13.

Section 6.15. Waiver of Stay or Extension Laws. The Company covenants (to the extent that it may lawfully do so) that it will not at any time insist upon, or plead, or in any manner whatsoever claim to take the benefit or advantage of, any stay or extension law wherever enacted, now or at any time hereafter in force, which may affect the covenants or the performance of this Indenture; and the Company (to the extent that it may lawfully do so) hereby expressly waives all benefit or advantage of any such law and covenants that it will not 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.

Section 6.16. Notice of Default. If any Default or any Event of Default occurs and is continuing and if such Default or Event of Default is actually known to a Responsible Officer of the Trustee, the Trustee shall within 90 days of the occurrence of a Default or Event of Default, mail to each Holder notice of all uncured Defaults or Events of Default known to the Trustee, unless such Default or Event of Default has been cured; provided, however, that, except in the case of a default in the payment of the principal of (including upon redemption or repurchase, as applicable) or premium, if any, or interest on any Note, the Trustee shall be protected in withholding such notice if the Trustee in good faith determines that the withholding of such notice is in the best interest of such Holders.

ARTICLE 7
CONCERNING THE TRUSTEE

Section 7.01. Certain Duties and Responsibilities of Trustee.

(a) The Trustee, prior to the occurrence of an Event of Default and after the curing of all Events of Default that may have occurred, shall undertake to perform with respect to the Notes 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 has occurred (that has not been cured or waived), the Trustee shall exercise with respect to the Notes 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 person would exercise or use under the circumstances in the conduct of his or her 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:

(i) prior to the occurrence of an Event of Default and after the curing or waiving of all such Events of Default that may have occurred:

(A) the duties and obligations of the Trustee shall with respect to the Notes be determined solely by the express provisions of this Indenture, and the Trustee shall not be liable with respect to the Notes except for the performance of such duties and obligations as are specifically set forth in this Indenture and subject to the terms of this Indenture, and no

implied covenants or obligations shall be read into this Indenture against the Trustee; and

(B) in the absence of negligence or willful misconduct on the part of the Trustee, the Trustee may with respect to the Notes 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 requirements of this Indenture;

(ii) 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;

(iii) 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 Notes 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 Notes; and

(iv) 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.

Section 7.02. Certain Rights of Trustee. Except as otherwise provided in Section 7.01:

(a) the Trustee may rely conclusively 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 any authorized officer of the Company (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 Holders pursuant to the provisions of this Indenture, unless such Holders shall have offered the Trustee security or indemnity satisfactory to the Trustee against loss, costs, expenses and liabilities that may be incurred therein or thereby;

(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 Notes 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;

(g) the Trustee may execute any of the trusts or powers hereunder or perform any duties hereunder either directly or by or through agents, attorneys or other professionals or consultants and may retain such parties in furtherance of its administration hereunder and the Trustee shall not be responsible for any misconduct or negligence on the part of any such agent, attorney or other professional appointed with due care by it hereunder;

(h) in no event shall the Trustee be responsible or liable for special, indirect, punitive 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;

(i) 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;

(j) the Trustee shall not be required to give any bond or surety in respect of the performance of its powers and duties hereunder;

(k) 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;

(l) under no circumstances shall the Trustee be liable in its individual capacity for the obligations evidenced by the Notes.

(m) The permissive right of the Trustee to do things enumerated in the documents shall not be construed as a duty.

In addition, the Trustee shall not be deemed to have knowledge of any Default or Event of Default except (1) any Event of Default occurring pursuant to Section 6.01(a) and 6.01(b)) or (2) any Default or Event of Default of which the Trustee shall have received written notification in the manner set forth in this Indenture or a Responsible Officer of the Trustee shall have obtained actual knowledge. Delivery of reports, information and documents to the Trustee under Section 4.03 is for informational purposes only and the information and the Trustee's receipt of the foregoing shall not constitute constructive notice of any information contained therein, or determinable from information contained therein including the Company's compliance with any of their covenants thereunder (as to which the Trustee is entitled to rely conclusively on an Officer's Certificate).

Section 7.03. Trustee Not Responsible for Recitals or Issuance or Notes.

(a) The recitals contained herein and in the Notes 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 Notes;

(c) The Trustee shall not be accountable for the use or application by the Company of any of the Notes or of the proceeds of such Notes, or for the use or application of any moneys paid over by the Trustee in accordance with any provision of this Indenture, or for the use or application of any moneys received by any Paying Agent other than the Trustee, acting in such capacity.

Section 7.04. May Hold Notes. The Trustee or any Paying Agent or Note Registrar, in its individual or any other capacity, may become the owner or pledgee of Notes with the same rights it would have if it were not Trustee, Paying Agent or Note Registrar.

Section 7.05. Moneys Held in Trust. Subject to the provisions of Section 3.03, 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 to in writing with the Company to pay thereon.

Section 7.06. Compensation and Reimbursement.

(a) The Company covenants and agrees to pay to the Trustee, and the Trustee shall be entitled to, such 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 willful misconduct and except as the Company and Trustee may from time to time agree in writing. 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 willful misconduct on the part of the Trustee and arising out of or in connection with the acceptance or administration of this trust, including the reasonable costs and expenses of defending itself against any claim of liability in the premises.

(b) The obligations of the Company under this Section 7.06 to compensate and indemnify the Trustee and to pay or reimburse the Trustee for reasonable expenses, disbursements and advances shall constitute additional indebtedness hereunder. Such additional indebtedness shall be secured by a lien prior to that of the Notes upon all property and funds held or collected by the Trustee as such, except funds held in trust for the benefit of the Holders.

(c) The Company covenants and agrees to indemnify the Trustee for, and hold it harmless from and against, any loss, liability, damages, claims, costs

or expense including taxes (other than taxes based upon, measured by or determined by the income of the Trustee) reasonably incurred by it arising out of or in connection with the acceptance or administration of the trust or trusts hereund, er or the performance of its duties hereunder, including the reasonable costs and expenses of defending itself against any claim (whether asserted by the Company, or any Holder or any other Person) or liability in connection with the exercise or performance of any of its powers or duties hereunder or in connection with enforcing the provisions of this Section, except to the extent any such loss, liability or expense may be attributable to its negligence or willful misconduct as determined by a final non-appealable decision of a court of competent jurisdiction.

(d) In addition and without prejudice to the rights provided to the Trustee under any of the provisions of this Indenture, when the Trustee incurs expenses or renders services in connection with an Event of Default specified in Section 6.01(g) or Section 6.01(h), 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 and State bankruptcy, insolvency or other similar law.

(e) The Company's obligations under this Section 7.06 and the lien referred to in Section 7.06(b) shall survive the resignation or removal of the Trustee, the discharge of the Company's obligations under Article Eleven of this Indenture and/or the termination of this Indenture.

Section 7.07. Reliance on Officer's Certificate and Opinions. Except as otherwise provided in Section 7.01, whenever in the administration of the provisions of this Indenture the Trustee shall deem it reasonably 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 willful misconduct on the part of the Trustee, be deemed to be conclusively proved and established by an Officer's Certificate and Opinion of Counsel delivered to the Trustee and such certificate or opinion, in the absence of negligence or willful misconduct 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 7.08. 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.

Section 7.09. Corporate Trustee Required; Eligibility. There shall at all times be a Trustee with respect to the Notes 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 Securities and Exchange Commission, authorized under such laws to exercise corporate trust powers, having a combined capital and surplus of at least fifty million U.S. dollars ($50,000,000), and subject to supervision or examination by federal, state, territorial, or District of Columbia authority.

If such corporation or other Person 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 7.09, the combined capital and surplus of such corporation or other Person 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 7.09, the Trustee shall resign promptly in the manner and with the effect specified in Section 7.10.

Section 7.10. Resignation and Removal; Appointment of Successor.

(a) The Trustee or any successor hereafter appointed may at any time resign with respect to the Notes by giving written notice thereof to the Company. Upon receiving such notice of resignation, the Company shall promptly appoint a successor trustee with respect to the Notes 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 the Notes, or any Holder who has been a bona fide Holder of Notes 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:

(i) the Trustee shall fail to comply with the provisions of Section 7.08 after written request therefor by the Company or by any Holder who has been a bona fide Holder of Notes for at least six months;

(ii) the Trustee shall cease to be eligible in accordance with the provisions of Section 7.09 and shall fail to resign after written request therefor by the Company or by any such Holder; or

(iii) 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 the Notes and appoint a successor trustee by written instrument, in duplicate, executed by order of the Board of Directors, one copy of which instrument shall be delivered to the Trustee so removed and one copy to the successor trustee, or any Holder who has been a bona fide Holder of Notes 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 Notes at the time Outstanding may at any time remove the Trustee by so notifying the Trustee and the Company in writing and may appoint a successor Trustee with the consent of the Company.

(d) Any resignation or removal of the Trustee and appointment of a successor trustee with respect to the Notes pursuant to any of the provisions of this Section 7.10 shall become effective upon acceptance of appointment by the successor trustee as provided in Section 7.11.

Section 7.11. Acceptance of Appointment By Successor.

(a) In case of the appointment hereunder of a successor trustee with respect to all Notes, 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. The trustee shall have no liability or responsibility for the action or inaction of any successor Trustee.

(b) In case of the appointment hereunder of a successor trustee with respect to some, but not all of the Notes, the Company, the retiring Trustee and

each successor trustee with respect to such Notes shall execute and deliver an indenture supplemental hereto wherein each successor trustee shall accept such appointment and which (i) shall contain such provisions as shall be necessary or desirable to transfer and confirm to, and to vest in, each successor trustee all the rights, powers, trusts and duties of the retiring Trustee with respect to the Notes to which the appointment of such successor trustee relates, (ii) 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 Notes as to which the retiring Trustee is not retiring shall continue to be vested in the retiring Trustee, and (iii) 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 Notes 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 Notes 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 Notes 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 7.11, 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 7.

(e) Upon acceptance of appointment by a successor trustee as provided in this Section 7.11, the Company shall transmit notice of the succession of such trustee hereunder by mail, first class postage prepaid or in accordance with the Applicable Procedures, to the Holders, as their names and addresses appear upon the Note 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 7.12. 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 7.08 and eligible under the provisions of Section 7.09, 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 Notes 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 Notes so authenticated with the same effect as if such successor Trustee had itself authenticated such Notes.

Section 7.13. 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 8
CONCERNING THE HOLDERS

Section 8.01. Evidence of Action by Holders. Whenever in this Indenture it is provided that the Holders of a majority or specified percentage in aggregate principal amount of the Notes 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 such Notes have joined therein may be evidenced by any instrument or any number of instruments of similar tenor executed by such Holders of such Notes in person or by agent or proxy appointed in writing.

If the Company shall solicit from the Holders any request, demand, authorization, direction, notice, consent, waiver or other action, the Company may, at its option, as evidenced by an Officer’s Certificate, fix in advance a record date for such Notes for the determination of Holders 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 Holders of record at the close of business on the record date shall be deemed to be Holders for the purposes of determining whether Holders of the requisite proportion of Outstanding Notes have authorized or agreed or consented to such request, demand, authorization, direction, notice, consent, waiver or other action, and for that purpose the Outstanding Notes shall be computed as of the record date; provided, however, that no such authorization, agreement or consent by such Holders 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 Holders. Subject to the provisions of Section 7.01, proof of the execution of any instrument by a Holder (such proof will not require notarization) or his agent or proxy and proof of the holding by any Person of any of the Notes 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 Notes shall be proved by the Note Register or by a certificate of the Note Registrar thereof.

The Trustee may require such additional proof of any matter referred to in this Section 8.02 as it shall deem necessary.

Section 8.03. Who May be Deemed Owners. Prior to the due presentment for registration of transfer of any Note, the Company, the Trustee, any paying agent and any Note Registrar may deem and treat the Person in whose name such Note shall be registered upon the books of the Company as the absolute owner of such Note (whether or not such Note shall be overdue and notwithstanding any notice of ownership or writing thereon made by anyone other than the Note Registrar) for the purpose of receiving payment of or on account of the principal of, premium, if any, and (subject to Section 2.03) interest on such Note and for all other purposes; and neither the Company nor the Trustee nor any paying agent nor any Note Registrar shall be affected by any notice to the contrary.

Section 8.04. Certain Notes Owned by Company Disregarded. In determining whether the Holders of the requisite aggregate principal amount of Notes have concurred in any direction, consent or waiver under this Indenture, the Notes that are owned by the Company or any other obligor on the Notes or by any Affiliate of the Company or any other obligor on the Notes 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 Notes that the Trustee actually knows are so owned shall be so disregarded. The Notes so owned that

have been pledged in good faith may be regarded as Outstanding for the purposes of this Section 8.04, if the pledgee shall establish to the satisfaction of the Trustee the pledgee's right so to act with respect to such Notes 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 Holders. 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 Notes specified in this Indenture in connection with such action, any Holder of a Note that is shown by the evidence to be included in the Notes 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 Note. Except as aforesaid any such action taken by the Holder of any Note shall be conclusive and binding upon such Holder and upon all future Holders and owners of such Note, and of any Note 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 Note. Any action taken by the Holders of the majority or percentage in aggregate principal amount of the Notes specified in this Indenture in connection with such action shall be conclusively binding upon the Company, the Trustee and the Holders.

ARTICLE 9
AMENDMENTS; SUPPLEMENTS AND WAIVERS

Section 9.01. Without Consent of Holders. The Company and the Trustee may amend or supplement this Indenture or the Notes without notice to or consent of any Holder of a Note for any of the following purposes:

(a) to add to the covenants of the Company for the benefit of the Holders of Notes;

(b) to surrender any right or power herein conferred upon the Company;

(c) to make provision with respect to the conversion rights of Holders of Notes pursuant to Section 13.10 hereof;

(d) to provide for the assumption of the Company's obligations to the Holders of Notes in the case of a merger, consolidation, conveyance, transfer or lease pursuant to Article 10 hereof;

(e) to increase the Conversion Rate; *provided, however*, that such increase in the Conversion Rate shall not adversely affect the interests of the Holders of Notes in any material respect;

(f) to comply with the requirements of the Commission in order to effect or maintain the qualification of this Indenture under the Trust Indenture Act;

(g) to cure any ambiguity, correct or supplement any provision herein which may be inconsistent with any other provision herein or which is otherwise defective; *provided*, that such action pursuant to this clause (g) does not adversely affect the interests of the Holders of Notes in any material respect;

(h) to add or modify any other provisions which the Company and the Trustee may deem necessary or desirable and which shall not adversely affect the interests of the Holders of Notes in any material respect; or

(i) to provide for the issuance of Additional Notes pursuant to Section 2.10.

After an amendment, supplement or waiver under this Section 9.01 becomes effective, the Company, or, at the written request of the Company, the Trustee, 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.

Section 9.02. With Consent of Holders. Except as provided below in this Section 9.02, this Indenture or the Notes may be amended or supplemented, and noncompliance by the Company in any particular instance with any provision of this Indenture or the Notes may be waived, in each case (i) with the written consent of the Holders of at least a majority in aggregate principal amount of the Notes then Outstanding or (ii) by the adoption of a resolution, at a meeting of Holders of the Notes then Outstanding at which a quorum is present, by the Holders of a majority in aggregate principal amount of the Outstanding Notes represented at such meeting.

Without the written consent or the affirmative vote of each Holder of an affected Note, an amendment, supplement or waiver to this Indenture or the Notes may not:

(a) change the stated maturity of the principal of, or the time of payment of any installment of interest on, any Note;

(b) reduce the principal amount of any Note;

(c) reduce the interest rate or interest on any Note;

(d) change the currency of payment of principal of, premium, if any, or interest on any Note;

(e) impair the right to institute suit for the enforcement of any payment with respect to, or the conversion of, any Note;

(f) except as otherwise permitted by Section 13.10 hereof, adversely affect the right to convert any Note as provided in Article 13 hereof;

(g) adversely affect the right of Holders to require the Company to purchase the Notes in the event of a Fundamental Change;

(h) modify any of the provisions of this Section 9.02, Section 6.04 or Section 6.12, except to increase any percentage contained herein or therein or to provide that certain other provisions of this Indenture cannot be modified or waived without the consent of the Holder of each Note affected thereby; or

(i) reduce the percentage in aggregate principal amount of the Outstanding Notes required for the adoption of a resolution or the quorum required at any meeting of Holders of Notes at which a resolution is adopted.

It shall not be necessary for the consent of Holders of Notes under this Section 9.02 to approve the particular form of any proposed modification, amendment or waiver, but it shall be sufficient if such act shall approve the substance thereof.

After an amendment, supplement or waiver under this Section 9.02 becomes effective, the Company, or, at the written request of the Company, the Trustee, 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.

Section 9.03. Effect of Supplemental Indentures. Upon the execution of any supplemental indenture pursuant to the provisions of this Article 9 or Section 10.01 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 Notes 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. Notes Affected by Supplemental Indentures. Notes affected by a supplemental indenture, authenticated and delivered after the execution of

such supplemental indenture pursuant to the provisions of this Article 9 or Section 10.01, may bear a notation in form approved by the Company, provided such form meets the requirements of any securities exchange upon which such Notes 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, 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 Notes 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 Holders required to consent thereto as aforesaid (if such consent is required pursuant to this Article), 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. The Trustee, subject to the provisions of Section 7.01, will be entitled to receive and will be fully protected in relying upon an Officer's Certificate and an Opinion of Counsel stating that any supplemental indenture executed pursuant to this Article is authorized or permitted by, and conforms to, the terms of this Article 9, constitutes a valid, binding and legal obligation, enforceable against the Company (subject to customary qualifications) and that it is proper for the Trustee under the provisions of this Article 9 to join in the execution thereof.

Promptly after the execution by the Company and the Trustee of any supplemental indenture pursuant to the provisions of this Section, the Company shall transmit by mail, first class postage prepaid, a notice, setting forth in general terms the substance of such supplemental indenture, to the Holders of all Notes affected thereby as their names and addresses appear upon the Note Register. 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 supplemental indenture.

ARTICLE 10
CONSOLIDATION; MERGER; CONVEYANCE; TRANSFER OR LEASE

Section 10.01. Company May Consolidate, Etc., Only on Certain Terms. The Company may not, without the consent of the Holders, consolidate with, merge into or convey, transfer or lease all or substantially all of the property and assets of the Company and its Subsidiaries, taken as a whole, to another Person unless:

(a) either (1) the Company shall be the resulting or surviving corporation or (2) the Person (if other than the Company) formed by such consolidation or into which the Company is merged, or the Person which acquires by transfer or lease all or substantially all of the property and assets of the Company, shall (i) be a corporation incorporated and existing under the laws of the United States of America or any State thereof or the District of Columbia and (ii) expressly assume, by an indenture supplemental hereto, executed and delivered to the Trustee, in form reasonably satisfactory to the Trustee, the obligations of the Company under the Notes and this Indenture;

(b) 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 occurred and be continuing; and

(c) if the Company will not be the resulting or surviving corporation, the Company shall have, at or prior to the effective date of such consolidation, merger, conveyance, transfer or lease, delivered to the Trustee an Officer's Certificate and an Opinion of Counsel, each stating that such consolidation, merger, conveyance, transfer or lease complies with this Article 10 and, if a supplemental indenture is required in connection with such transaction, such supplemental indenture complies with this Article 10, and that all conditions precedent herein provided for relating to such transaction have been complied with.

Section 10.02. Successor Substituted. Upon any consolidation of the Company with, or merger of the Company into, any other Person or any conveyance, transfer or lease of all or substantially all of the properties and assets of the Company and its Subsidiaries, taken as a whole, in accordance with Section 10.01, the successor Person formed by such consolidation or into which the Company is merged or to which such conveyance, transfer or lease 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, and except for obligations the predecessor Person may have under a supplemental indenture, the predecessor Person shall be relieved of all obligations and covenants under the Indenture and the Notes.

ARTICLE 11
IMMUNITY OF INCORPORATORS, STOCKHOLDERS, OFFICERS AND DIRECTORS

Section 11.01. No Recourse. No recourse under or upon any obligation, covenant or agreement of this Indenture, or of the Notes, 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 Notes 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 Notes 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 the Notes.

ARTICLE 12
ADDITIONAL INTEREST

Section 12.01. Additional Interest. (a) The Company will pay additional interest ("**Additional Interest**") on the principal amount of any Restricted Notes if required by, and on the terms set forth in, the supplemental indenture which was executed in connection with the issuance of such Restricted Notes.

(b) Notwithstanding the foregoing, the Company shall not be required to pay Additional Interest on any date if (i) the Company has filed a shelf registration statement for the resale of the Notes and any shares of Common Stock issued upon conversion of the Notes, (ii) such shelf registration statement is effective and usable by Holders of the Notes identified therein as selling security holders for the resale of the Notes and any shares of Common Stock issued upon conversion of the Notes, and (iii) the Holders may register the resale of their Notes under such shelf registration statement on terms customary for the resale of convertible securities offered in reliance on Rule 144A.

(c) Under no circumstances will the combined rate of Additional Interest or Special Interest exceed 1.00% per annum.

(d) The Company shall provide written notice to the Trustee prior to paying any Additional Interest.

ARTICLE 13
CONVERSION OF NOTES

Section 13.01. Conversion Privilege and Conversion Rate. (a) The conversion rights pursuant to this Article 13 shall commence on the Issue Date of the Notes and expire at the close of business on the Business Day immediately preceding the Maturity Date unless previously redeemed or repurchased, subject to the provisions of this Indenture and, in the case of conversion of any Global Note, to any Applicable Procedures; provided, however, that if the Company has elected to redeem the Notes pursuant to Article 14 hereof, Holders may convert their Notes only until the close of business on the Business Day prior to the Redemption Date unless the Company fails to pay the Redemption Price in which case the conversion right shall terminate at the close of business on the Business Day prior to the date such failure is cured and such Note is redeemed. If a Note is submitted or presented for purchase pursuant to Article 15, subject to the last paragraph of Section 13.02(b), such conversion right shall terminate at the close of business on the Business Day prior to the Fundamental Change Purchase Date for such Note (unless the Company shall fail to make the Fundamental Change Purchase Price payment when due in accordance with Article 15, in which case the conversion right shall terminate at the close of business on the Business Day prior to the date such failure is cured and such Note is repurchased).

(b) Provisions of this Indenture that apply to conversion of all of a Note also apply to conversion of a portion of a Note.

(c) A Holder of Notes is not entitled to any rights of a holder of Common Stock until such Holder has converted its Notes into Common Stock, and only to the extent such Notes are deemed to have been converted into Common Stock pursuant to this Article 13.

(d) The Conversion Rate shall be adjusted in certain instances as provided in Section 13.01(e) and Section 13.06.

(e) If a Make-Whole Fundamental Change shall have occurred, the Company shall calculate and pay a "**Fundamental Change Make-Whole Premium**" to the Holders of the Notes who convert their Notes during the period beginning the date of the Make-Whole Fundamental Change Notice until the close of business on the tenth Business Day immediately following the Make-Whole Fundamental Change Effective Date by increasing the Conversion Rate for such Notes. The Fundamental Make-Whole Change Premium will be in addition to, and not in substitution for, any cash, securities or other assets otherwise due to Holders of Notes upon conversion. The number of additional shares of Common Stock per $1,000 principal amount of Notes constituting the Fundamental Change Make-Whole Premium shall be determined by reference to the table set forth on Schedule A hereto, based on the Make-Whole Fundamental Change Effective

Date and the Stock Price; provided that if the Stock Price or Make-Whole Fundamental Change Effective Date are not set forth on the table: (i) if the actual Stock Price on the Make-Whole Fundamental Change Effective Date is between two Stock Prices on the table or the actual Fundamental Change Effective Date is between two Make-Whole Fundamental Change Effective Dates on the table, the Fundamental Change Make-Whole Premium will be determined by a straight-line interpolation between the Fundamental Change Make-Whole Premiums set forth for the two Stock Prices and the two Make-Whole Fundamental Change Effective Dates on the table based on a 365-day year, as applicable, (ii) if the Stock Price on the Fundamental Change Effective Date exceeds $12.00 per share, subject to adjustment as set forth herein, no Fundamental Change Make-Whole Premium will be paid, and (iii) if the Stock Price on the Make-Whole Fundamental Change Effective Date is less than $4.82 per share, subject to adjustment as set forth herein, no Fundamental Change Make-Whole Premium will be paid. If holders of Common Stock receive only cash in the Make-Whole Fundamental Change, the Stock Price shall be the cash amount paid per share of Common Stock in connection with such Make-Whole Fundamental Change. Otherwise, the Stock Price shall be equal to the average Last Reported Sale Price of the Common Stock over the 10 Trading Day period ending on the Trading Day immediately preceding, and excluding, the applicable Fundamental Change Effective Date. The Company, or, at the request of the Company, the Trustee, shall mail written notice of the anticipated effective date of any Make-Whole Fundamental Change to the Holders (with a copy to the Trustee if applicable) as practicable following the date the Company publicly announces such Make-Whole Fundamental Change, but in no event less than 20 days prior to the anticipated Make-Whole Fundamental Change Effective Date (the "**Make-Whole Fundamental Change Notice**"). At the Company's request, the Trustee shall give such Make-Whole Fundamental Change Notice in the Company's name and at the Company's request; provided that, unless otherwise agreed by the Trustee, the Company makes such request at least three (3) Business Days prior to the date of such notice.

The Stock Prices set forth in the first column of the table on Schedule A will be adjusted as of any date on which the Conversion Rate of the Notes is adjusted other than an adjustment pursuant to the Fundamental Change Make-Whole Premium described above. The adjusted Stock Prices will 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 set forth in the table above will be adjusted in the same manner as the Conversion Rate as set forth in Section 13.06 hereof, other than as a result of an adjustment to the Conversion Rate by adding the Fundamental Change Make-Whole Premium as described above.

Notwithstanding the foregoing, in no event will the Conversion Rate exceed 207.4688 per $1,000 principal amount as a result of this Section 13.01, subject to proportional adjustment in the same manner as the Conversion Rate as set forth in Section 13.06 hereof.

The Fundamental Change Make-Whole Premium shall be delivered upon the later of the settlement date for the conversion and promptly following the Fundamental Change Effective Date.

If a Holder converts its Notes prior to the Fundamental Change Effective Date, and the Make-Whole Fundamental Change does not occur, such Holder shall not be entitled to the Fundamental Change Make-Whole Premium in connection with such conversion.

(f) By delivering the number of shares of Common Stock issuable on conversion to the Trustee, plus a cash payment for any fractional share, the Company will be deemed to have satisfied its obligation to pay the principal amount of the Notes so converted and its obligation to pay accrued and unpaid interest attributable to the period from the most recent Interest Payment Date through the Conversion Date (which amount will be deemed satisfied and extinguished).

Section 13.02. Conversion Procedure. (a) To convert a Note in certificated form, a Holder must (1) complete and manually sign the Notice of Conversion on the back of the Note, or facsimile of such Notice of Conversion, and deliver such Notice of Conversion to the Conversion Agent, which shall become irrevocable upon receipt by the Conversion Agent, (2) surrender the Note to the Conversion Agent, (3) furnish appropriate endorsements and transfer documents if required by the Note Registrar or the Conversion Agent, (4) pay an amount equal to the interest payable on the next Interest Payment Date to which the Holder is not entitled as required by Section 13.02(c) and (5) pay all transfer or similar taxes, if required pursuant to Section 13.04. Anything herein to the contrary notwithstanding, in the case of Global Notes, Notices of Conversion may be delivered and such Notes may be surrendered for conversion in accordance with clauses (3), (4) and (5) of this Section 13.02(a) and the Applicable Procedures as in effect from time to time. The date on which the Holder satisfies all the requirements set forth in this Section 13.02(a) is the "**Conversion Date**."

(b) Each conversion shall be deemed to have been effected as to any Notes surrendered for conversion on the Conversion Date and the person in whose name the shares of Common Stock shall be issuable upon conversion shall be deemed to be the holder of record of such Common Stock as of the close of business on such Conversion Date, and the Company shall deliver the consideration due in respect of any conversion on the third Business Day immediately following the relevant Conversion Date; *provided*, however, that no

surrender of a Note on any Conversion Date when the stock transfer books of the Company shall be closed shall be effective to constitute the person or persons entitled to receive the shares of Common Stock upon conversion as the record holder or holders of such shares of Common Stock on such date, but such surrender shall be effective to constitute the person or persons entitled to receive such shares of Common Stock as the record holder or holders thereof for all purposes at the close of business on the next succeeding day on which such stock transfer books are open. Upon conversion of a Note, such person shall no longer be the Holder of such Note. Except as set forth in this Indenture, no payment or adjustment will be made for dividends or distributions declared or made on shares of Common Stock issued upon conversion of a Note prior to the issuance of such shares.

A Holder that has delivered a Fundamental Change Purchase Notice pursuant to Section 15.01 with respect to a Note may not surrender such Note for conversion until such Holder has withdrawn the Fundamental Change Purchase Notice in accordance with Section 15.01(c).

(c) Holders of Notes surrendered for conversion (in whole or in part) during the period from the close of business on any Regular Record Date to the open of business on the next succeeding Interest Payment Date will receive the semiannual interest payable on the principal amount of such Notes being surrendered for conversion on the corresponding Interest Payment Date notwithstanding the conversion. Upon surrender of any such Notes for conversion, such Notes shall also be accompanied by payment in funds to the Conversion Agent acceptable to the Company of an amount equal to the interest payable on such corresponding Interest Payment Date (but excluding any overdue interest on the principal amount of such Note so converted if any overdue interest exists at the time such Holder surrenders such Note for conversion); *provided*, *however*, that no such payment need be made (i) if the Company has specified a Redemption Date that is after such Regular Record Date and on or prior to the next succeeding Interest Payment Date, (ii) if the Company has specified a Fundamental Change Purchase Date that is after such Regular Record Date and on or prior to the next succeeding Interest Payment Date, or (iii) if conversion occurs after the last Regular Record Date prior to the Maturity Date. Except as otherwise provided in this Section 13.02(c), no payment or adjustment will be made for accrued interest on a converted Note and any such accrued interest shall be deemed satisfied and extinguished.

(d) Subject to Section 13.02(c), nothing in this Section 13.02 shall affect the right of a Holder in whose name any Note is registered at the close of business on a Regular Record Date to receive the interest payable on such Note on the related Interest Payment Date in accordance with the terms of this Indenture and the Notes. If a Holder converts more than one Note at the same time, the number of shares of Common Stock issuable upon the conversion (and the amount of any

cash in lieu of fractional shares pursuant to Section 13.03) shall be based on the aggregate principal amount of all Notes so converted.

(e) In the case of any Note which is converted in part only, upon such conversion the Company shall execute and the Trustee shall authenticate and deliver to the Holder thereof, without service charge, a new Note or Notes of authorized denominations in an aggregate principal amount equal to, and in exchange for, the unconverted portion of the principal amount of such Note. A Note may be converted in part, but only if the principal amount of such part is an integral multiple of $1,000 and the principal amount of such Note to remain Outstanding after such conversion is equal to $1,000 or any integral multiple of $1,000 in excess thereof.

Section 13.03. Fractional Shares. No fractional shares of Common Stock shall be issued upon conversion of any Note or Notes. If more than one Note shall be surrendered for conversion at one time by the same Holder, the number of full shares which shall be issued upon conversion thereof shall be computed on the basis of the aggregate principal amount of the Notes (or specified portions thereof) so surrendered. Instead of any fractional share of Common Stock which would otherwise be issued upon conversion of any Note or Notes (or specified portions thereof), the Company shall pay a cash adjustment in respect of such fraction (calculated to the nearest one-100th of a share) in an amount equal to the same fraction of the Last Reported Sale Price of the Common Stock as of the Trading Day preceding the Conversion Date.

Section 13.04. Taxes on Conversion. Except as provided in the next sentence, the Company will pay any and all documentary, stamp or similar issue or transfer tax due and duties on the issuance of shares of Common Stock upon conversion of Notes pursuant hereto. A Holder delivering a Note for conversion shall be liable for and will be required to pay any tax or duty which may be payable in respect of any transfer involved in the issue and delivery of shares of Common Stock in a name other than that of the Holder of the Note or Notes to be converted, and no such issue or delivery shall be made unless the Person requesting such issue has paid to the Company the amount of any such tax or duty, or has established to the satisfaction of the Company that such tax or duty has been paid.

Section 13.05. Company to Provide Common Stock. (a) The Company shall, prior to issuance of any Notes 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 Notes into shares of Common Stock.

(b) All shares of Common Stock delivered upon conversion of the Notes shall be newly issued shares, shall be duly authorized, validly issued, fully

paid and nonassessable and shall be free from preemptive or similar rights and free of any lien or adverse claim as the result of any action by the Company.

Section 13.06. Adjustment of Conversion Rate. The Conversion Rate shall be adjusted from time to time by the Company as follows:

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

$$CR = CR_0 \times \frac{OS}{OS_0}$$

where,

CR_0 = the applicable Conversion Rate in effect immediately prior to the open of business on the Ex-Dividend Date for such dividend or distribution, or immediately prior to the open of business on the effective date of such share split or share combination, as the case may be;

CR = the applicable Conversion Rate in effect 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 of such share split or share combination, as the case may be;

OS_0 = the number of shares of Common Stock outstanding immediately prior to such dividend, distribution, share split or share combination, as the case may be; and

OS = the number of shares of Common Stock outstanding immediately after giving effect to such dividend, distribution, share split or share combination, as the case may be.

Any adjustments made pursuant to this Section 13.06(a) shall become effective immediately on or after (x) the open of business on the Ex-Dividend Date for such dividend or distribution or (y) the effective date of such split or combination, as applicable. If any dividend or distribution described in this Section 13.06(a) is declared but not so paid or made, the new Conversion Rate shall again be adjusted to the Conversion Rate that would then be in effect if such dividend or distribution had not been declared.

(b) If the Company distributes to all holders of Common Stock any rights or warrants entitling them to purchase, for a period of not more than 45 days after the Ex-Dividend Date for the distribution, shares of Common Stock at a price per share less than the average of the Last Reported Sale Prices of the Common Stock for the 10 consecutive Trading-Day period ending on the Trading Day immediately preceding the declaration date for such distribution, the Conversion Rate will be adjusted based on the following formula:

$$CR = CR_0 \times \frac{OS_0 + X}{OS_0 + Y}$$

where,

CR_0 = the Conversion Rate in effect immediately prior to the open of business on the Ex-Dividend Date for such distribution;

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

OS_0 = the number of shares of Common Stock outstanding immediately prior to the open of business on the Ex-Dividend Date for such distribution;

X = the total number of shares of Common Stock issuable pursuant to such rights or warrants; and

Y = the number of shares of Common Stock equal to the aggregate price payable to exercise such rights or warrants divided by the average of the Last Reported Sale Prices of the Common Stock over the 10 consecutive Trading-Day period ending on the Trading Day immediately preceding the declaration date for such distribution.

For purposes of this Section 13.06(b), in determining whether any rights or warrants entitle the Holders to subscribe for or purchase shares of Common Stock at less than the average of the Last Reported Sale Prices of the Common Stock for the applicable 10 consecutive Trading-Day period, there shall be taken into account any consideration received by the Company for such rights or warrants and any amount payable on exercise thereof, with the value of such consideration if other than cash, to be determined by the Board of Directors. If any right or warrant described in this Section 13.06(b) is not exercised prior to the expiration of the exercisability thereof, the new Conversion Rate shall be readjusted to the Conversion Rate that would then be in effect if such right or warrant had not been so issued. Any adjustment made pursuant to this Section

13.06(b) shall become effective immediately after the Ex-Dividend Date for the applicable distribution.

(c) If the Company distributes shares of its Capital Stock, evidences of its indebtedness or other assets or property of the Company to all holders of the Common Stock, excluding

(i) dividends or distributions (including share splits) as to which an adjustment is effected in Section 13.06(a) or Section 13.06(b);

(ii) dividends or distributions covered by Section 13.06(d);

(iii) dividends or distributions that constitute Reference Property following an event pursuant to Section 13.10; and

(iv) Spin-Offs to which the provisions set forth below in this Section 13.06(c) shall apply,

then the applicable Conversion Rate will be adjusted based on the following formula:

$$CR = CR_0 \times \frac{SP_0}{SP_0 - FMV}$$

where,

CR_0 = the applicable Conversion Rate in effect immediately prior to the open of business on the Ex-Dividend Date for such distribution;

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

SP_0 = the average of the Last Reported Sale Prices of the Common Stock over the 10 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 in good faith by the Board of Directors) of the shares of Capital Stock, evidences of indebtedness, assets or property distributed with respect to each outstanding share of Common Stock as of the open of business on the Ex-Dividend Date for such distribution.

If the then fair market value of the portion of the shares of Capital Stock, evidences of indebtedness or other assets or property so distributed applicable to one share of Common Stock is equal to or greater than the average of the Last

Reported Sales Prices of the Common Stock over the 10 consecutive Trading-Day period ending on the Trading Day immediately preceding the Ex-Dividend Date for such distribution, in lieu of the foregoing adjustment, adequate provisions shall be made so that each Holder of a Note shall have the right to receive on conversion in respect of each Note held by such Holder, in addition to any amounts to which such Holder is entitled to receive, the amount and kind of securities and assets such Holder would have received had such Holder already owned a number of shares of Common Stock equal to the applicable Conversion Rate immediately prior to the open of business on the Ex-Dividend Date for the distribution of the securities or assets.

With respect to an adjustment pursuant to this Section 13.06(c) where there has been a payment of a dividend or other distribution on the Common Stock of shares of the Capital Stock of any class or series, or similar equity interest, of or relating to a Subsidiary or other business unit that are, or, when issued, will be, traded or quoted on any national or regional securities exchange or other market (a "**Spin-Off**"), the applicable Conversion Rate will instead be adjusted based on the following formula:

$$CR = CR_0 \times \frac{FMV + MP_0}{MP_0}$$

where,

CR_0 = the applicable Conversion Rate in effect immediately prior to the tenth Trading Day immediately following the effective date for such Spin-Off;

CR = the applicable Conversion Rate in effect immediately after the open of business on the tenth Trading Day immediately following the effective date for such Spin-Off;

FMV = the average of the Last Reported Sale Prices of the Capital Stock or similar equity interest distributed to holders of Common Stock applicable to one share of Common Stock over the first 10 consecutive Trading-Day period immediately following the effective date for such Spin-Off (such period, the "**Valuation Period**"); and

MP_0 = the average of the Last Reported Sale Prices of Common Stock over the Valuation Period.

Such adjustment shall occur immediately after the tenth Trading Day immediately following, and including, the effective date of such Spin-Off; *provided* that, for purposes of determining the Conversion Rate in respect of any

conversion during the 10 Trading Days following the effective date of any Spin-Off, references within this Section 13.06(c) related to "Spin-Offs" to 10 Trading Days shall be deemed replaced with such lesser number of Trading Days as have elapsed between the effective date of such Spin-Off and the relevant Conversion Date.

If any such dividend or distribution described in this Section 13.06(c) is declared but not paid or made, the new Conversion Rate shall be readjusted to be the Conversion Rate that would then be in effect if such dividend or distribution had not been declared.

(d) If any cash dividend or distribution is made to all holders of Common Stock, the Conversion Rate will be adjusted based on the following formula:

$$CR = CR_0 \times \frac{SP_0}{SP_0 - C}$$

where,

CR_0 = the applicable Conversion Rate in effect immediately prior to the open of business on the Ex-Dividend Date for such distribution;

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

SP_0 = the average of the Last Reported Sale Prices of the Common Stock over the 10 consecutive Trading-Day period ending on, and including, the Trading Day immediately preceding the Ex-Dividend Date for such distribution; and

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

An adjustment to the Conversion Rate made pursuant to this Section 13.06(d) shall become effective immediately after the open of business on the Ex-Dividend Date for the applicable dividend or distribution. If any dividend or distribution described in this Section 13.06(d) is declared but not so paid or made, the new Conversion Rate shall be readjusted to the Conversion Rate that would then be in effect if such dividend or distribution had not been declared.

If the amount in cash per share of Common Stock so paid or distributed is equal to or greater than the average of the Last Reported Sales Prices of the Common Stock over the 10 consecutive Trading-Day period ending on the Trading Day immediately preceding the Ex-Dividend Date for such cash dividend

or distribution, in lieu of the foregoing adjustment, adequate provisions shall be made so that each Holder of a Note shall have the right to receive on conversion in respect of each Note held by such Holder, in addition to any amounts to which such Holder is entitled to receive, the amount in cash such Holder would have received had such Holder already owned a number of shares of Common Stock equal to the applicable Conversion Rate immediately prior to the record date for such cash dividend or distribution.

(e) If the Company or any of its Subsidiaries makes a payment in respect of a tender or exchange offer for Common Stock (other than tender offers or exchange offers not subject to Rule 13e-4 of the Exchange Act or odd lot tender offers), to the extent that the cash and value of any other consideration included in the payment per share of 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 or exchange offer (the "**Expiration Date**"), the Conversion Rate shall be increased based on the following formula:

$$CR = CR_0 \times \frac{AC + (SP \times OS)}{OS_0 \times SP}$$

where,

CR_0 = the applicable Conversion Rate in effect immediately prior to the open of business on the Trading Day next succeeding the Expiration Date;

CR = the applicable Conversion Rate in effect immediately after the open of business on the Trading Day next succeeding the Expiration Date;

AC = the aggregate value of all cash and any other consideration (as determined by the Board of Directors) paid or payable for shares purchased in such tender offer or exchange offer;

OS_0 = the number of shares of Common Stock outstanding immediately prior to time (the "**Expiration Time**") such tender or exchange offer expires (prior to giving effect to such tender offer or exchange offer);

OS = the number of shares of Common Stock outstanding immediately after the expiration time (after giving effect to such tender offer or exchange offer); and

SP = the average of the Last Reported Sale Prices of Common Stock over the 10 consecutive Trading-Day period commencing on, and including, the Trading Day next succeeding the Expiration Date.

The adjustment to the Conversion Rate under this Section 13.06(e) shall become effective immediately following the tenth Trading Day next succeeding the date such tender offer or exchange offer expires; *provided* that, for purposes of determining the Conversion Rate, in respect of any conversion during the 10 Trading Days following the date that any tender or exchange offer expires, references within this Section 13.06(e) to 10 Trading Days shall be deemed replaced with such lesser number of Trading Days as have elapsed between the date such tender or exchange offer expires and the relevant Conversion Date. If the Company or one of its Subsidiaries is obligated to purchase Common Stock pursuant to any such tender or exchange offer but are permanently prevented by applicable law from effecting any such purchase or all such purchases are rescinded, the new Conversion Rate shall be readjusted to be the Conversion Rate that would be in effect if such tender or exchange offer had not been made.

(f) Notwithstanding the foregoing, if a Conversion Rate adjustment becomes effective on any Ex-Dividend Date pursuant to Section 13.06(a) through Section 13.06(e), and a Holder that has converted its Notes 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 based on an adjusted Conversion Rate for such Ex-Dividend Date, then, notwithstanding Section 13.06(a) through Section 13.06(e), the Conversion Rate adjustment relating to such Ex-Dividend Date will not be made for such converting Holder. Instead, such Holder shall be treated as if such Holder were the record owner of the Common Stock on an unadjusted basis and participate in the related dividend, distribution or other event giving rise to such adjustment.

Section 13.07. When No Adjustment is Required. (a) No adjustment in the Conversion Rate shall be required unless such adjustment would require an increase or decrease of at least 1% in the Conversion Rate as last adjusted; provided, however, that any adjustments which would be required to be made but for this Section 13.07(a) shall be carried forward and taken into account in any subsequent adjustment and any carry forward amount shall be paid to the Holder upon conversion regardless of the 1% threshold. All calculations under this Article 13 shall be made to the nearest cent or to the nearest one-hundredth of a share.

(b) Without limiting the foregoing provisions of Section 13.06, no adjustment will be made thereunder, nor shall an adjustment be made to the ability of a Holder to convert, for any distribution described therein if the Holder will otherwise participate in the distribution without conversion of such Holder’s Notes as if such Holder held a number of shares of Common Stock equal to the

applicable Conversion Rate, multiplied by the principal amount (expressed in thousands) of Notes held by such Holder, without having to convert its Notes. Further, if the application of the foregoing formulas in Section 13.06 would result in a decrease in the Conversion Rate, no adjustment to the Conversion Rate will be made (except on account of share combinations).

(c) No adjustment to the Conversion Rate will be made unless as specifically set forth in Section 13.06 and Section 13.01(e). Without limiting the foregoing, no adjustment to the Conversion Rate need be made:

(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 securities of the Company 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 shares of Common Stock pursuant to any present or future employee, director or consultant benefit plan or program or employee stock purchase plan 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) above and outstanding as of the Issue Date;

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

(v) for accrued and unpaid interest (including any Special Interest and Additional Interest, if applicable).

Section 13.08. Notice of Adjustment. Whenever the Conversion Rate or conversion privilege is required to be adjusted pursuant to this Indenture, the Company shall promptly mail to Holders a notice of the adjustment and file with the Trustee an Officer's Certificate briefly stating the facts requiring the adjustment, the adjusted Conversion Rate and the manner of computing it. Failure to mail such notice or any defect therein shall not affect the validity of any such adjustment. Unless and until the Trustee shall receive an Officer's Certificate setting forth 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.

Section 13.09. Notice of Certain Transactions. In the event that there is a dissolution or liquidation of the Company, the Company shall mail to Holders and file with the Trustee a notice stating the proposed effective date. The Company shall mail such notice at least 20 days before such proposed effective date. Failure

to mail such notice or any defect therein shall not affect the validity of any transaction referred to in this Section 13.09.

Section 13.10. Effect of Reclassification, Consolidation, Merger or Sale On Conversion Privilege. If any of the following events occur:

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

(b) any consolidation, merger, or combination involving the Company with another corporation, or

(c) any sale, conveyance or lease to any other corporation of all or substantially all of the property and assets of the Company,

(d) any statutory share exchange,

in each case as a result of which holders of Common Stock shall be entitled to receive stock, other securities or other property or assets (including cash or any combination thereof) (the "**Reference Property**") with respect to or in exchange for such Common Stock, the Holders of the Notes then Outstanding will be entitled thereafter to convert those Notes into the kind and amount of shares of stock, other securities or other property or assets (including cash or any combination thereof) which they would have owned or been entitled to receive upon such transaction had such notes been converted into Common Stock immediately prior to such transaction. In the event holders of Common Stock have the opportunity to elect the form of consideration to be received in such transaction, the reference property will 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 election. The Company shall notify the Holders of the weighted average as soon as practicable after such determination is made. The Company may not become a party to any such transaction unless its terms are consistent with the preceding. None of the foregoing provisions shall affect the right of a Holder of Notes to convert its Notes into shares of Common Stock prior to the effective date of such transaction.

The above provisions of this Section 13.10 shall similarly apply to successive recapitalizations, reclassifications, mergers, consolidations, statutory share exchanges, combinations, sales and conveyances.

If this Section 13.10 applies to any event or occurrence, Section 13.06 hereof shall not apply.

The Company shall not become a party to any such transaction unless its terms are consistent with the foregoing. None of the foregoing provisions shall

affect the right of a Holder to convert the Notes as set forth in Section 13.01 prior to the effective time of such transaction.

Section 13.11. Trustee's Disclaimer. (a) The Trustee shall have no duty to determine, or liability in connection therewith, when an adjustment under this Article 13 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, an Officer's Certificate, including the Officer's Certificate with respect thereto which the Company is obligated to file with the Trustee pursuant to Section 13.08. Unless and until the Trustee receives such Officer's Certificate delivered pursuant to Section 13.08, the Trustee may assume without inquiry that no such adjustment has been made and the last Conversion Rate of which the Trustee has knowledge remains in effect. The Trustee makes no representation as to the validity or value of any securities or assets issued upon conversion of Notes, and the Trustee shall not be responsible for the Company's failure to comply with any provisions of this Article 13.

(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 13.10, but may accept as conclusive evidence of the correctness thereof, and shall be fully protected in relying upon, the Officer's Certificate and Opinion of Counsel, with respect thereto which the Company are obligated to file with the Trustee pursuant to Section 13.10 and Section 10.01, respectively.

Section 13.12. Voluntary Increase; Nasdaq Compliance. Subject to Section 9.01(e), the Company from time to time may increase the Conversion Rate, to the extent permitted by law and subject to any applicable stockholder approval requirements pursuant to the listing standards of the Nasdaq Stock Market or such other United States securities exchange on which the Common Stock is traded, by any amount for any period of at least 20 days. The Company may make such increase in the Conversion Rate (in addition to others provided in this Indenture) as the Board of Directors deems advisable to avoid or diminish any income tax to holders of Common Stock resulting from a dividend or distribution of stock, or rights to acquire stock, or similar event, and the Company provides 15 days' prior written notice of any increase in the Conversion Rate to the Trustee and the Holders: *provided*, *however*, that in no event may the Company increase the Conversion Rate such that it causes the Conversion Price to be less than the par value of a share of Common Stock.

The Company may not take any voluntary actions that would result in an adjustment to the Conversion Rate pursuant to Section 13.06 without complying, if applicable, with the stockholder approval rules of the NASDAQ Global Market and any similar rule of any stock exchange on which the Common Stock is listed

at the relevant time. In accordance with such listing standards, this restriction shall apply at any time when the Notes are Outstanding, regardless of whether the Company then has a class of securities listed on the NASDAQ Global Market.

Section 13.13. Rights Plan. To the extent that the Company has a Rights Plan in effect upon conversion of the Notes into Common Stock, the Holder will receive upon conversion of the Notes in respect of which the Company has elected to deliver Common Stock, if applicable, the Rights under the Rights Plan, unless prior to any conversion, the Rights have separated from the Common Stock, in which case, and only in such case, the Conversion Rate will be adjusted at the time of separation as if the Company distributed to all holders of Common Stock shares of the Company's Capital Stock, evidences of indebtedness or assets as described in Section 13.06(c) above, subject to readjustment in the event of the expiration, termination or redemption of such Rights. In lieu of any such adjustment, the Company may amend such applicable Rights Plan to provide that upon conversion of the Notes the Holders will receive, in addition to the Common Stock issuable upon such conversion, the Rights which would have attached to such Common Stock if the Rights had not become separated from the Common Stock under such applicable Rights Plan.

Section 13.14. Exchange in Lieu of Conversion. (a) Notwithstanding anything in this Indenture to the contrary, when a Holder surrenders Notes for conversion, the Company may, at its election, direct the Conversion Agent to surrender, on or prior to the second Business Day immediately following the Conversion Date (assuming for purposes of this Section 13.14 that the date such Holder surrenders such Notes for conversion is the Conversion Date for such Notes), such Notes to a financial institution designated by the Company (a "**Financial Institution**") for exchange in lieu of conversion.

(b) In order to accept any such Notes surrendered for conversion, the Financial Institution must agree to deliver, in exchange for such Notes, shares of Common Stock (and cash in lieu of fractional shares) equal to the consideration due upon conversion under Section 13.01(a), together with any additional shares of Common Stock representing the Fundamental Change Make-Whole Premium pursuant to Section 13.01(e) (the "**Exchange Settlement Property**").

(c) By the close of business on the second Business Day immediately following the Conversion Date, the Company must notify the Holder surrendering Notes for conversion that it has directed the Financial Institution to make an exchange in lieu of conversion and the Financial Institution shall be required to notify the Conversion Agent whether it will deliver the Exchange Settlement Property upon exchange.

(d) If the Financial Institution accepts any such Notes, it shall deliver the Exchange Settlement Property to the Conversion Agent and the Conversion

Agent shall deliver such Exchange Settlement Property to the applicable Holder no later than the third Business Day following the Conversion Date. Any Notes exchanged by the Financial Institution shall remain Outstanding, subject to Applicable Procedures.

(e) If the Financial Institution agrees to accept any Notes for exchange but does not timely deliver the related consideration, or if the Financial Institution does not accept the Notes for exchange, the Company shall deliver such conversion consideration as if the Company had not made an exchange election.

The Company's designation of the Financial Institution to which the Notes may be submitted for exchange does not require the Financial Institution to accept any Notes. The Company shall not pay any consideration to, or otherwise enter into any agreement with, the financial institution designated as the Financial Institution for or with respect to such designation.

ARTICLE 14
REDEMPTION OF NOTES

Section 14.01. Right to Redeem. (a) No sinking fund is provided for the Notes. On or after the date that is one year following the original Issue Date of the Notes, the Notes may be redeemed for cash in whole or in part at the option of the Company if the Last Reported Sale Price of the Common Stock is greater than or equal to 130% of the Conversion Price on at least 20 Trading Days during any 30 consecutive Trading Day period ending on the date on which the Company mailed the Notice of Redemption.

(b) The price at which the Notes are redeemable (the "**Redemption Price**") shall be equal to (i) 100% of the principal amount of Notes to be redeemed, *plus* (ii) accrued and unpaid interest (including any Special Interest and Additional Interest), if any, to, but excluding, the date of redemption (the "**Redemption Date**"); provided that if the Redemption Date occurs after a Regular Record Date and on or prior to the corresponding Interest Payment Date, the Company will pay the full amount of accrued and unpaid interest due on such Interest Payment Date to the record Holder of the Notes on the Regular Record Date corresponding to such Interest Payment Date, subject to Applicable Procedures, and the Redemption Price payable to the Holder who presents a Note for redemption will be equal to 100% of the principal amount of such Notes.

(c) The Company may not redeem any Notes unless all accrued and unpaid interest (including Special Interest and Additional Interest, if applicable) thereon has been or is simultaneously paid for all interest periods ending prior to the Redemption Date.

(d) If a Holder surrenders a Note for conversion during the period from the Close of Business on a Regular Record Date to the Open of Business on the corresponding Interest Payment Date, such Holder must accompany such Note with an amount of cash equal to the amount of interest that will be payable on such Note on the corresponding Interest Payment Date; provided, however, that a Holder need not make such payment if the Company has specified a Redemption Date that is after a Regular Record Date and on or prior to the corresponding Interest Payment Date, as set forth under Section 13.02, regardless of whether such Holders are the Holders of record on such Regular Record Date.

Section 14.02. Selection of Notes to be Redeemed. If less than all the Notes are to be redeemed, the Trustee shall select the Notes to be redeemed by lot, or on a pro rata basis and in accordance with Applicable Procedures for Global Notes. The Trustee shall make the selection within seven Business Days from its receipt of the notice from the Company delivered pursuant to Section 14.03 from Outstanding Notes not previously called for redemption.

Notes and portions of Notes the Trustee selects shall be in principal amounts of $1,000 or in integral multiples of $1,000 in excess thereof. Provisions of this Indenture that apply to Notes called for redemption in whole also apply to Notes called for redemption in part. The Trustee shall notify the Company promptly of the Notes or portions of Notes to be redeemed.

If any portion of a Holder's Notes are selected for partial redemption and such Holder converts a portion of its Notes, the converted portion of such Notes shall be deemed (so far as may be) to be from the portion selected for redemption. Notes which have been converted during a selection of Notes to be redeemed may be treated by the Trustee as Outstanding for the purpose of such selection.

Section 14.03. Notice of Redemption. At least 30 days but not more than 60 days before a Redemption Date, the Company, or at the Company's request, the Trustee, shall mail a notice of redemption by first-class mail, postage prepaid (or in accordance with Applicable Procedures), to the Trustee, the Paying Agent and each Holder of Notes to be redeemed (the "**Notice of Redemption**"); *provided, however*, that the Company may not deliver any such notice to any Holder of Notes at any time when there exists any accrued and unpaid Defaulted Interest.

The Notice of Redemption shall specify the Notes (including CUSIP numbers) to be redeemed and shall state:

(i) the Redemption Date;

(ii) the Redemption Price;

(iii) the applicable Conversion Rate and any adjustments thereto;

(iv) the name and address of the Paying Agent and Conversion Agent; and

(v) the procedures a Holder must follow to exercise rights under Article 15.

At the Company's written request delivered at least 45 days prior to the Redemption Date (unless a shorter period is agreed to by the Trustee), the Trustee shall give the Notice of Redemption to each Holder of Notes to be redeemed in the Company's name and at the Company's expense.

Section 14.04. Effect of Notice of Redemption. Once Notice of Redemption is given, Notes called for redemption become due and payable on the Redemption Date and at the Redemption Price stated in the notice except for Notes that are converted in accordance with the terms of this Indenture. Upon surrender to the Paying Agent, such Notes shall be paid at the Redemption Price stated in the notice.

Section 14.05. Deposit of Redemption Price. Prior to 10:00 a.m. (New York City time) on or prior to the Redemption Date, the Company shall deposit with the Trustee or with the Paying Agent (or, if the Company or a Subsidiary of the Company or an Affiliate of either of them is acting as the Paying Agent, shall segregate and hold in trust as provided in Section 7.06) an amount of money (in immediately available funds if deposited on such Redemption Date) and shares of Common Stock, if any, sufficient (as determined by the Company) to pay the aggregate Redemption Price of all the Notes or portions thereof which are to be redeemed as of the Redemption Date.

If the Paying Agent holds money and shares of Common Stock, if any, sufficient to pay the Redemption Price with respect to the Notes to be redeemed on the Redemption Date in accordance with the terms of this Indenture, then, immediately on and after the Redemption Date, interest on such Notes shall cease to accrue, whether or not the Notes are delivered to the Paying Agent, and all other rights of the Holders of such Notes shall terminate, other than the right to receive the Redemption Price upon delivery of such Notes.

Section 14.06. Notes Redeemed in Part. (a) Any Note which is to be redeemed only in part shall be surrendered at the office of the Paying Agent (with, if the Company or the Trustee so requires, due endorsement by, or a written instrument of transfer in form satisfactory to the Company and the Trustee duly executed by, the Holder thereof or such Holder's attorney duly authorized in writing) and the Company shall execute and, upon Company Order, the Trustee shall authenticate and deliver to the Holder of such Note, without service charge, a new Note or Notes, of any authorized denomination as requested by such Holder

in aggregate principal amount equal to, and in exchange for, the portion of the principal amount of the Note so surrendered that is not redeemed.

(b) In the event of any redemption of any Note in part, the Company shall not be required to (i) issue, register the transfer of or exchange, pursuant to Section 2.05 or Section 2.06, any Notes during a period beginning at the open of business 15 days before the mailing of a Notice of Redemption and ending at the close of business on the day of such mailing or (ii) register the transfer of or exchange, pursuant to Section 2.05, any Notes so selected for redemption, in whole or in part, except the portion of such Notes not being redeemed.

ARTICLE 15
REPURCHASE OF NOTES

Section 15.01. Repurchase of Notes at Option of the Holder Upon a Fundamental Change. (a) If a Fundamental Change occurs prior to the Maturity Date, each Holder of a Note shall have the right, at the option of the Holder, to require the Company to repurchase all or any portion of the Notes of such Holder equal to $1,000 principal amount (or an integral multiple thereof) at the Fundamental Change Purchase Price, on the date specified by the Company that is not less than 20 days and not more than 35 days after the date of the Fundamental Change Company Notice pursuant to Section 15.01(b) (the "**Fundamental Change Purchase Date**"). If the Fundamental Change Purchase Date is after a Regular Record Date and on or prior to the corresponding Interest Payment Date, the Company shall pay accrued and unpaid interest to the Holder of a Note of record at the close of business on such Regular Record Date, subject to Applicable Procedures.

(b) On or before the tenth day after the Fundamental Change Effective Date, the Company, or, at the request of the Company, the Trustee, shall mail a written notice of the occurrence of the Fundamental Change, and of the repurchase right arising therefrom, to the Trustee, Paying Agent and to each Holder (and to beneficial owners as required by applicable law) (the "**Fundamental Change Company Notice**"). Simultaneously with providing such Fundamental Change Company Notice, the Company shall publish a notice containing the information that is required in the Fundamental Change Company Notice in a newspaper of general circulation in The City of New York or publish information on a website of the Company or through such other public medium the Company may use at that time. The Fundamental Change Company Notice shall set forth the Holder's right to require the Company to purchase the Notes and specify:

(i) the events causing such Fundamental Change;

(ii) the date of such Fundamental Change;

(iii) the last date by which the Fundamental Repurchase Notice must be delivered to elect the repurchase option pursuant to this Section 15.01;

(iv) the Fundamental Change Purchase Price;

(v) the Fundamental Change Purchase Date;

(vi) the name and address of each Paying Agent and Conversion Agent, if applicable;

(vii) that the Notes with respect to which a Fundamental Change Notice has been delivered by a Holder may be converted only if the Holder withdraws the Fundamental Change Purchase Notice in accordance with the terms of this Indenture; and

(viii) the procedures that the Holder must follow to require the Company to repurchase its Notes under this Section 15.01.

At the Company's request, the Trustee shall give such Fundamental Change Company Notice in the Company's name and at the Company's expense; *provided* that, unless otherwise agreed by the Trustee, the Company makes such request at least five (5) Business Days prior to the date by which such Fundamental Change Company Notice must be given to the Holders in accordance with this Section 15.01; *provided, further*, that the text of such Fundamental Change Company Notice shall be prepared by the Company. If any of the Notes is in the form of a Global Note, then the Company shall modify such notice to the extent necessary to accord with the Applicable Procedures relating to the purchase of Global Notes. The Trustee shall not be obligated on behalf of the Company to publish a notice containing the information that is required in the Fundamental Change Company Notice in a newspaper of general circulation in The City of New York or publish information on a website of the Company or through such other public medium the Company may use at that time.

No failure of the Company to give the foregoing notices or defect therein shall limit any Holder's right to exercise its right to cause the Company to repurchase such Holder's Notes pursuant to this Section 15.01.

(c) A Holder may exercise its rights specified in this Section 15.01 upon delivery of (1) the Note to be repurchased, duly endorsed for transfer, together with (2) a written purchase notice and the form entitled "Fundamental Change Purchase Notice" on the reverse of the Note duly completed and which may be delivered by letter, overnight courier, hand delivery, facsimile transmission or in any other written form onto the Paying Agent (in the case of Notes held in book-

entry form, in accordance with DTC's Applicable Procedures) of the exercise of such rights (a "**Fundamental Change Purchase Notice**") to the Paying Agent at any time on or before the close of business on the Fundamental Change Purchase Date, subject to extension to comply with applicable law.

(i) The Fundamental Change Purchase Notice shall state: (A) the certificate number (if such Note is held in certificated form) of the Note which the Holder will deliver to be repurchased (or, if the Note is held in global form, any other items required to comply with the Applicable Procedures), (B) the portion of the principal amount of the Note which the Holder will deliver to be repurchased and (C) that such Note shall be repurchased as of the Fundamental Change Purchase Date pursuant to the terms and conditions specified in the Notes and in this Indenture.

(ii) The delivery of a Note for which a Fundamental Change Purchase Notice has been timely delivered to any Paying Agent, on or before the Business Day immediately preceding the Fundamental Change Purchase Date (together with all necessary endorsements) at the office of such Paying Agent shall be a condition to the receipt by the Holder of the Fundamental Change Purchase Price therefor (or, if the Note is held in global form, any items required to comply with the Applicable Procedures).

(iii) The Company shall only be obliged to purchase, pursuant to this Section 15.01, a portion of a Note if the principal amount of such portion is $1,000 or an integral multiple of $1,000 (provisions of this Indenture that apply to the purchase of all of a Note also apply to the purchase of such portion of such Note).

(iv) A Paying Agent shall promptly notify the Company of the receipt by it of any Fundamental Change Purchase Notice.

(v) Anything herein to the contrary notwithstanding, in the case of Global Notes, any Fundamental Change Purchase Notice may be delivered and such Notes may be surrendered or delivered for purchase in accordance with the Applicable Procedures as in effect from time to time.

(vi) A Holder may withdraw any Fundamental Change Purchase Notice in whole or in part by written notice of withdrawal delivered to the Paying Agent or in accordance with DTC's Applicable Procedures prior to the close of business on the Business Day prior to the Fundamental Change Purchase Date. Such notice of withdrawal shall state: (A) the principal amount of the withdrawn Note , (B) the certificate number (if such Note is held in certificated form) of the withdrawn Note

(or, if the Note is held in global form, any other items required to comply with the Applicable Procedures), and (C) the principal amount, if any, which remains subject to the Fundamental Change Purchase Notice.

(d) The Company shall deposit cash at the time and in the manner as provided in Section 15.03, sufficient (as determined by the Company) to pay the aggregate Fundamental Change Purchase Price of all Notes to be purchased pursuant to this Section 15.01.

Section 15.02. Effect of Fundamental Change Purchase Notice. Upon receipt by any Paying Agent of a properly completed Fundamental Change Purchase Notice from a Holder, the Holder of the Note in respect of which such Fundamental Change Purchase Notice was given shall thereafter be entitled to receive the Fundamental Change Purchase Price with respect to such Note. Such Fundamental Change Purchase Price shall be paid to such Holder promptly following the later of (1) the Fundamental Change Purchase Date (provided that the conditions in Section 15.01 have been satisfied) and (2) the time of book-entry transfer or delivery of such Note to a Paying Agent by the Holder thereof in the manner required by Section 15.01(c), subject to extension to comply with applicable law.

Section 15.03. Deposit of Fundamental Change Purchase Price. (a) On or before the applicable Fundamental Change Purchase Date, the Company shall deposit with the Paying Agent (or if the Company or an Affiliate of the Company is acting as the Paying Agent, shall segregate and hold in trust as provided in Section 7.06) an amount of money (in immediately available funds if deposited on or after such Fundamental Change Purchase Date), sufficient (as determined by the Company) to pay the aggregate Fundamental Change Purchase Price of all the Notes or portions thereof that are to be purchased as of the Fundamental Change Purchase Date. Payment by the Paying Agent of the Fundamental Change Purchase Price following receipt of the Fundamental Change Purchase Price from the Company shall be made promptly following the later of the Fundamental Change Purchase Date or the time of book-entry transfer or delivery of such Notes.

(b) If the Paying Agent holds, on the Fundamental Change Purchase Date, in accordance with the terms hereof, money or securities sufficient to pay the Fundamental Change Purchase Price of any Note for which a Fundamental Change Purchase Notice has been tendered then, immediately following the applicable Fundamental Change Purchase Date, whether or not book-entry transfer of the Note is made or whether or not the Note is delivered to the Paying Agent, each such Note shall cease to be Outstanding, interest, including any additional interest, if any, shall cease to accrue, and all other rights of the Holder in respect of the Note shall terminate (other than the right to receive the

Fundamental Change Purchase Price upon delivery or transfer of the Note as aforesaid).

(c) If a Fundamental Change Purchase Date falls after a Regular Record Date and on or before the related Interest Payment Date, then interest on the Notes payable on such Interest Payment Date will be payable to the Holders in whose names the Notes are registered at the close of business on such Regular Record Date.

Section 15.04. Repayment to the Company. To the extent that the aggregate amount of cash deposited by the Company pursuant to Section 15.03 exceeds the aggregate Fundamental Change Purchase Price of the Notes or portions thereof that the Company is obligated to purchase, then promptly after the Fundamental Change Purchase Date the Paying Agent shall return any such excess cash to the Company.

Section 15.05. Notes Purchased In Part. Any Note that is to be purchased only in part shall be surrendered at the office of a Paying Agent, and promptly after the Fundamental Change Purchase Date, the Company shall execute and the Trustee shall authenticate and deliver to the Holder of such Note, without service charge, a new Note or Notes, of such authorized denomination or denominations as may be requested by such Holder (which must be equal to $1,000 principal amount or any integral thereof), in aggregate principal amount equal to, and in exchange for, the portion of the principal amount of the Note so surrendered that is not purchased.

Section 15.06. Compliance With Securities Laws Upon Purchase of Notes. In connection with any offer to purchase of Notes under Section 15.01, the Company shall (a) comply with Rule 13e-4 and Rule 14e-1 (or any successor to either such Rule), and any other tender offer rules, if applicable, under the Exchange Act, (b) file the related Schedule TO (or any successor or similar schedule, form or report) if required under the Exchange Act, and (c) otherwise comply with all applicable federal and state securities laws in connection with such offer to purchase or purchase of Notes, all so as to permit the rights of the Holders and obligations of the Company under Section 15.01 through Section 15.05 to be exercised in the time and in the manner specified therein. To the extent that compliance with any such laws, rules and regulations would result in a conflict with any of the terms hereof, this Indenture is hereby modified to the extent required for the Company to comply with such laws, rules and regulations.

ARTICLE 16
MEETING OF HOLDERS OF NOTES

Section 16.01. Purposes For Which Meetings May Be Called. A meeting of Holders of Notes may be called at any time and from time to time pursuant to this Article 16 to make, give or take any request, demand, authorization, direction, notice, consent, waiver or other action provided by this Indenture to be made, given or taken by Holders of Notes.

Notwithstanding anything contained in this Article 16, the Trustee may, during the pendency of a Default or an Event of Default, call a meeting of Holders of Notes in accordance with its standard practices.

Section 16.02. Call Notice and Place of Meetings. (a) The Trustee may at any time call a meeting of Holders of Notes for any purpose specified in Section 16.01 hereof, to be held at such time and at such place in The City of New York. Notice of every meeting of Holders of Notes, setting forth the time and the place of such meeting, in general terms the action proposed to be taken at such meeting and the percentage of the principal amount of the then-Outstanding Notes which shall constitute a quorum at such meeting, shall be given, in the manner provided in the Indenture, not less than 21 nor more than 180 days prior to the date fixed for the meeting.

(b) In case at any time the Company, pursuant to a resolution of the Board of Directors, or the Holders of at least 10% in principal amount of the Notes then Outstanding shall have requested the Trustee to call a meeting of the Holders of Notes for any purpose specified in Section 16.01 hereof, by written request setting forth in reasonable detail the action proposed to be taken at the meeting, and the Trustee shall not have made the first publication of the notice of such meeting within 21 days after receipt of such request or shall not thereafter proceed to cause the meeting to be held as provided herein, then the Company or the Holders of Notes in the amount specified, as the case may be, may determine the time and the place in The City of New York for such meeting and may call such meeting for such purposes by giving notice thereof as provided in Section 16.02(a).

Section 16.03. Persons Entitled to Vote at Meetings. To be entitled to vote at any meeting of Holders of Notes, a Person shall be (a) a Holder of one or more Outstanding Notes or (b) a Person appointed by an instrument in writing as proxy for a Holder or Holders of one or more Outstanding Notes by such Holder or Holders. The only Persons who shall be entitled to be present or to speak at any meeting of Holders shall be the Persons entitled to vote at such meeting and their counsel, any representatives of the Trustee and its counsel and any representatives of the Company and its counsel.

Section 16.04. Quorum; Action. The Persons entitled to vote a majority in principal amount of the then-Outstanding Notes shall constitute a quorum. In the absence of a quorum within 30 minutes of the time appointed for any such meeting, the meeting shall, if convened at the request of Holders of Notes, be dissolved. In any other case, the meeting may be adjourned for a period of not less than 10 days as determined by the chairman of the meeting prior to the adjournment of such meeting. In the absence of a quorum at any such adjourned meeting, such adjourned meeting may be further adjourned for a period of not less than 10 days as determined by the chairman of the meeting prior to the adjournment of such adjourned meeting. Notice of the reconvening of any adjourned meeting shall be given as provided in Section 16.02(a) hereof, except that such notice need be given only once and not less than five days prior to the date on which the meeting is scheduled to be reconvened.

At a meeting or an adjourned meeting duly reconvened and at which a quorum is present as aforesaid, any resolution and all matters (except as limited by the third paragraph of Section 9.02 hereof) shall be effectively passed and decided if passed or decided by the Persons entitled to vote not less than a majority in principal amount of Notes then Outstanding represented and voting at such meeting.

Any resolution passed or decisions taken at any meeting of Holders of Notes duly held in accordance with this Section 16.04 shall be binding on all the Holders of Notes, whether or not present or represented at the meeting.

Section 16.05. Determination of Voting Rights; Conduct and Adjournment of Meetings. (a) Notwithstanding any other provisions of this Indenture, the Trustee may make such reasonable regulations as it may deem advisable for any meeting of Holders of Notes in regard to proof of the holding of Notes and of the appointment of proxies and in regard to the appointment and duties of inspectors of votes, the submission and examination of proxies, certificates and other evidence of the right to vote, and such other matters concerning the conduct of the meeting as it shall deem appropriate.

(b) The Trustee shall, by an instrument in writing, appoint a temporary chairman (which may be the Trustee) of the meeting, unless the meeting shall have been called by the Company or by Holders of Notes as provided in Section 16.02 hereof, in which case the Company or the Holders of Notes calling the meeting, as the case may be, shall in like manner appoint a temporary chairman. A permanent chairman and a permanent secretary of the meeting shall be elected by vote of the Persons entitled to vote a majority in principal amount of the Outstanding Notes represented at the meeting.

(c) At any meeting, each Holder of a Note or proxy shall be entitled to one vote for each $1,000 principal amount of Notes held or represented by him;

provided, however, that no vote shall be cast or counted at any meeting in respect of any Note challenged as not Outstanding and ruled by the chairman of the meeting to be not Outstanding. The chairman of the meeting shall have no right to vote, except as a Holder of a Note or proxy.

(d) Any meeting of Holders of Notes duly called pursuant to Section 16.02 hereof at which a quorum is present may be adjourned from time to time by Persons entitled to vote a majority in principal amount of the then-Outstanding Notes represented at the meeting, and the meeting may be held as so adjourned without further notice.

Section 16.06. Counting Votes and Recording Action of Meetings. The vote upon any resolution submitted to any meeting of Holders of Notes shall be by written ballots on which shall be subscribed the signatures of the Holders of Notes or of their representatives by proxy and the principal amounts and serial numbers of the Outstanding Notes held or represented by them. The permanent chairman of the meeting shall appoint two inspectors of votes who shall count all votes cast at the meeting for or against any resolution and who shall make and file with the secretary of the meeting their verified written reports in duplicate of all votes cast at the meeting. A record, at least in duplicate, of the proceedings of each meeting of Holders of Notes shall be prepared by the secretary of the meeting and there shall be attached to said record the original reports of the inspectors of votes on any vote by ballot taken thereat and affidavits by one or more Persons having knowledge of the facts setting forth a copy of the notice of the meeting and showing that said notice was given as provided in Section 16.02 hereof and, if applicable, Section 16.04 hereof. Each copy shall be signed and verified by the affidavits of the permanent chairman and secretary of the meeting and one such copy shall be delivered to the Company and another to the Trustee to be preserved by the Trustee, the latter to have attached thereto the ballots voted at the meeting. Any record so signed and verified shall be conclusive evidence of the matters therein stated.

ARTICLE 17
MISCELLANEOUS PROVISIONS

Section 17.01. Provisions Binding on Company's Successors. All the covenants, stipulations, promises and agreements of the Company contained in this Indenture shall bind its successors and assigns whether so expressed or not.

Section 17.02. Official Acts 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 like board, committee or officer of any

corporation or other entity that shall at the time be the lawful sole successor of the Company.

Section 17.03. Notices. Except as otherwise expressly provided herein, any notice, request or demand that by any provision of this Indenture is required or permitted to be given, made or served by the Trustee or by the Holders or by any other Person pursuant to this Indenture to or on the Company may be given or served by being deposited in first class mail, postage prepaid, addressed (until another address is filed in writing by the Company with the Trustee), as follows: 28903 North Avenue Paine, Valencia, CA 91355. Any notice, election, request or demand by the Company or any Holder or by any other Person pursuant to this Indenture 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 or sent electronically in PDF format. Except as otherwise expressly provided herein, any notice or communication to a Holder of a Note may be given or served by being deposited in first class mail, postage prepaid, addressed at the Holder's address as it appears in the Note Register; *provided* that notices given to Holders of Global Notes may be given by electronic transmission to the facilities of the Depositary.

Section 17.04. Governing Law. THIS INDENTURE AND EACH NOTE SHALL BE DEEMED TO BE A CONTRACT MADE UNDER THE LAWS OF NEW YORK, AND FOR ALL PURPOSES SHALL BE CONSTRUED IN ACCORDANCE WITH THE LAWS OF NEW YORK, WITHOUT REGARD TO CONFLICTS OF LAWS PRINCIPLES THEREOF.

Section 17.05. Evidence of Compliance with Conditions Precedent; Certificates and Opinions of Counsel to Trustee. 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 Officer's Certificate and an Opinion of Counsel stating that such action is permitted by the terms of this Indenture; *provided* that no such Opinion of Counsel shall be required in connection with the issuance of Notes on the Issue Date.

Each Officer's Certificate and Opinion of Counsel provided for by or on behalf of the Company in this Indenture and delivered to the Trustee with respect to compliance with this Indenture (other than the Officer's Certificates provided for in Section 4.04) shall include (a) a statement that the Person making such certification is familiar with the requested action and this Indenture; (b) a brief statement as to the nature and scope of the examination or investigation upon which the statement contained in such certificate is based; (c) a statement that, in the judgment of such person, he or she has made such examination or investigation as is necessary to enable him or her to express an informed judgment as to whether or not such action is permitted by this Indenture; and (d) a

statement as to whether or not, in the judgment of such Person, such action is permitted by this Indenture.

Notwithstanding anything to the contrary in this Section 17.05, if any provision in this Indenture specifically provides that the Trustee shall or may receive an Opinion of Counsel in connection with any action to be taken by the Trustee or the Company hereunder, the Trustee shall be entitled to, or entitled to request, such Opinion of Counsel.

Section 17.06. Legal Holidays. In any case where any Interest Payment Date, Redemption Date, Fundamental Change Purchase Date, Conversion Date or Maturity Date is not a Business Day, then any action to be taken on such date need not be taken on such date, but may be taken on the next succeeding Business Day with the same force and effect as if taken on such date, and no interest shall accrue for the period from and after such date.

Section 17.07. No Security Interest Created. Nothing in this Indenture or in the Notes, expressed or implied, shall be construed to constitute a security interest under the Uniform Commercial Code or similar legislation, as now or hereafter enacted and in effect, in any jurisdiction.

Section 17.08. Benefits of Indenture. Nothing in this Indenture or in the Notes, expressed or implied, shall give to any Person, other than the parties hereto, any Paying Agent, any Conversion Agent, any authenticating agent, any Note Registrar and their successors hereunder or the Holders of the Notes, any benefit or any legal or equitable right, remedy or claim under this Indenture.

Section 17.09. Table of Contents, Headings, Etc. The table of contents and the titles 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 17.10. Execution in Counterparts. This Indenture may be executed in any number of counterparts, each of which shall be an original, but such counterparts shall together constitute but one and the same instrument.

Section 17.11. Severability. In the event any provision of this Indenture or in the Notes shall be invalid, illegal or unenforceable, then (to the extent permitted by law) the validity, legality or enforceability of the remaining provisions shall not in any way be affected or impaired.

Section 17.12. 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 NOTES OR THE TRANSACTION CONTEMPLATED HEREBY.

Section 17.13. Consent to Jurisdiction. (a) The Company hereby irrevocably and unconditionally submits, for itself and its property, to the nonexclusive jurisdiction of any New York State court or federal court of the United States sitting in the State and City of New York, County and Borough of Manhattan, and any appellate court from any thereof, in any action or proceeding arising out of or relating to this Indenture or the Notes, or for recognition or enforcement of any judgment, and each of the parties hereto hereby irrevocably and unconditionally agrees that all claims in respect of any such action or proceeding may be heard and determined in such state court sitting in the State and City of New York, County and Borough of Manhattan or, to the extent permitted by law, in such federal court sitting in the State and City of New York, County and Borough of Manhattan. Each of the parties hereto agrees that a final judgment in any such action or proceeding shall be conclusive and may be enforced in other jurisdictions by suit on the judgment or in any other manner provided by law.

(b) The Company hereby irrevocably and unconditionally waives, to the fullest extent it may legally and effectively do so, any objection which it may now or hereafter have to the laying of venue of any suit, action or proceeding arising out of or relating to this Indenture or the Notes in any New York State or federal court. Each of the parties hereto hereby irrevocably waives, to the fullest extent permitted by law, the defense of an inconvenient forum to the maintenance of such action or proceeding in any such court.

Section 17.14. 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; it being understood that the Trustee shall use reasonable efforts that are consistent with accepted practices in the banking industry to resume performance as soon as practicable under the circumstances.

Section 17.15. Calculations. Except as explicitly stated herein, the Company shall be responsible for making all calculations required pursuant to this Indenture and the Notes, including, without limitation, calculations with respect to determinations of the Conversion Price and Conversion Rate applicable to the Notes. The Company shall make all such calculations in good faith and, absent manifest error, the Company’s calculations shall be binding on the Holders. The Company shall provide a written schedule of such calculations to the Trustee, and

the Trustee shall be entitled to conclusively rely upon the accuracy of the Company's calculations without responsibility for independent verification thereof. The Trustee shall forward a copy of such calculations to any Holder upon such Holder's written request.

Section 17.16. U.S.A. Patriot Act. The parties hereto acknowledge that in accordance with Section 326 of the U.S.A. Patriot Act, the Trustee, like all financial institutions and in order to help fight the funding of terrorism and money laundering, is required to obtain, verify, and record information that identifies each person or legal entity that establishes a relationship or opens an account with the Trustee. The parties to this Indenture agree that they will provide the Trustee with such information as it may request in order for the Trustee to satisfy the requirements of the U.S.A. Patriot Act.

ARTICLE 18
SUBORDINATION

Section 18.01. Subordination.

(a) The Company covenants and agrees, and each Holder, by accepting a Note, likewise covenants and agrees, that all payments on the Notes, including the payment of principal, Fundamental Change Purchase Price or Redemption Price and interest (including Special Interest and Additional Interest) on the Notes, will be subordinated to the prior payment in full in cash (or other payment satisfactory to the holders of Designated Senior Debt) of all of the Designated Senior Debt and the subordination is for the benefit of and enforceable by the holders of the Designated Senior Debt.

(b) Upon any distribution of the Company's assets upon any dissolution, winding up, liquidation, reorganization, bankruptcy, assignment for the benefit of holders or any other marshaling of assets, or similar proceeding, the payment of the principal, Fundamental Change Purchase Price or Redemption Price of and interest (including Special Interest and Additional Interest) on, the Notes will be subordinated in right of payment to the prior payment in full in cash (or other payment satisfactory to the holders of Designated Senior Debt) of all of the Designated Senior Debt. The Company shall promptly notify holders of Designated Senior Debt if payment of the Notes is accelerated because of an Event of Default or if a Fundamental Change occurs.

Notwithstanding the foregoing, the right of Holders to receive any distributions, which (x) are provided for by a plan of reorganization or readjustment authorized by an order or decree of a court of competent jurisdiction in a reorganization proceeding under any applicable Bankruptcy Law relating to the Company and consented to by the holders of the Designated Senior Debt and

(y) take the form of the Company's equity interests or the Company's indebtedness that is subordinated in right of payment to Designated Senior Debt then outstanding to at least the same extent of the Notes, shall not be subordinated to the prior payment of any Designated Senior Debt or otherwise subject to the subordination provisions of this Section 18.01, and none of the Holders will be obligated to pay over any such distributions to any holder of Designated Senior Debt. The Company may not make any payment on the Notes if:

(i) at the time any default in the payment of principal, premium, interest or other amounts due on Designated Senior Debt when due, whether at maturity, upon redemption or mandatory repurchase, acceleration, or otherwise, and the default has not been cured or waived (a "**Payment Default**"); or

(ii) a default, other than a payment default, on any Designated Senior Debt occurs and is continuing that permits holders of Designated Senior Debt to accelerate its maturity, and the Trustee receives a notice of such default (a "**Payment Blockage Notice**") from a holder of Designated Senior Debt electing to effect a payment blockage under this Indenture (a "**Nonpayment Default**").

The Company may resume payments and distributions on the Notes:

(i) in case of a Payment Default, upon the date on which such default is cured or waived or ceases to exist; and

(ii) in case of a Nonpayment Default, the earlier of (A) the date on which such Nonpayment Default is cured or waived, (B) 91 days after the date the Designated Senior Debt is paid in full in cash (or other payment satisfactory to the holders of the Designated Senior Debt), (C) 179 days after the date on which the Payment Blockage Notice is received by the Trustee, if the maturity of the Designated Senior Debt has not been accelerated and there is no Payment Default, or (D) the date the Payment Blockage Notice has been rescinded.

No Nonpayment Default that existed or was continuing on the date of delivery of any Payment Blockage Notice shall be the basis for any later Payment Blockage Notice unless such default shall have been cured or waived for a period of not less than 90 consecutive days.

(c) If the Trustee or any Holder receives any payment or distribution of the Company's assets in contravention of the subordination provisions of this Section 18.01 before all Designated Senior Debt is paid in full in cash or other payment satisfactory to holders of Designated Senior Debt, then such payment or distribution will be held for the benefit of holders of Designated Senior Debt or their representatives and paid over to them to the extent necessary to make

payment in full in cash or payment satisfactory to the holders of Designated Senior Debt of all unpaid Designated Senior Debt.

The Trustee shall not be deemed to owe any fiduciary duty to the holders of Designated Senior Debt and shall not be liable to any such holders if the Trustee shall in good faith mistakenly pay over or distribute to Holders or to the Company or to any other person cash, property or securities to which any holders of Designated Senior Debt shall be entitled by virtue of this Article or otherwise. With respect to the holders of Designated Senior Debt, the Trustee undertakes to perform or to observe only such of its covenants or obligations as are specifically set forth in this Article and no implied covenants or obligations with respect to holders of Designated Senior Debt shall be read into this Indenture against the Trustee.

Nothing in this Section 18.01 shall prohibit the conversion or exchange of any or all of the Notes into or for shares of Common Stock, including cash payments in lieu of fractional shares of common stock.

[SIGNATURE PAGE FOLLOWS]

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

MANNKIND CORPORATION, as Issuer

By: /s/ Mathew Pfeffer
Name: Matthew Pfeffer
Title: Chief Financial Officer

Wells Fargo Bank, National Association,
as Trustee

By: /s/ Maddy Hughes
Name: Maddy Hughes
Title: Vice President

Schedule A

Make Whole Premium Upon a Fundamental Change
(Number of Additional Shares)

	Stock Price									
	$4.82	**$5.50**	**$6.00**	**$6.80**	**$7.50**	**$8.00**	**$8.84**	**$10.00**	**$11.00**	**$12.00**
August 15, 2015	60.3829	45.1836	36.8467	26.9809	20.8347	17.4675	13.2048	9.3090	7.1400	5.6625
August 15, 2016	60.3829	42.3709	33.2767	22.2559	15.0613	10.9113	0.0000	0.0000	0.0000	0.0000
August 15, 2017	60.3829	39.2818	29.7017	18.8074	12.2520	8.6950	0.0000	0.0000	0.0000	0.0000
August 15, 2018	60.3829	34.7600	19.6083	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

EXHIBIT A

[FORM OF FACE OF NOTE]

[INCLUDE IF A GLOBAL NOTE]

[UNLESS THIS CERTIFICATE IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY, A NEW YORK CORPORATION ("DTC"), 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 DTC (AND ANY PAYMENT IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC), ANY TRANSFER, PLEDGE, OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL INASMUCH AS THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN.]

[INCLUDE IF A RESTRICTED SECURITY]

THE SALE OF THIS NOTE HAS NOT BEEN REGISTERED UNDER THE U.S. SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND ACCORDINGLY, THIS NOTE MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED EXCEPT AS SET FORTH IN THE FOLLOWING SENTENCE. BY ITS ACQUISITION HEREOF, OR OF A BENEFICIAL OWNERSHIP HEREIN, THE ACQUIRER: (I) REPRESENTS THAT IT, AND ANY ACCOUNT FOR WHICH IT IS ACTING, IS A "QUALIFIED INSTITUTIONAL BUYER" (WITHIN THE MEANING OF RULE 144A UNDER THE SECURITIES ACT) AND THAT IT EXERCISES SOLE INVESTMENT DISCRETION WITH RESPECT TO EACH SUCH ACCOUNT, AND (II) AGREES (1) THAT IT WILL NOT WITHIN THE LATER OF (X) ONE YEAR AFTER THE DATE OF ISSUANCE OF THIS NOTE AND (Y) 90 DAYS AFTER IT CEASES TO BE AN AFFILIATE (WITHIN THE MEANING OF RULE 144 UNDER THE SECURITIES ACT) OF MANNKIND CORPORATION (THE "COMPANY"), OFFER, RESELL, PLEDGE OR OTHERWISE TRANSFER THE NOTES EVIDENCED HEREBY, THE COMMON STOCK ISSUABLE UPON CONVERSION OF SUCH NOTES OR ANY BENEFICIAL OWNERSHIP HEREIN, EXCEPT: (A) TO THE COMPANY OR ANY SUBSIDIARY THEREOF; (B) UNDER A REGISTRATION STATEMENT THAT HAS BECOME EFFECTIVE UNDER THE SECURITIES ACT; (C) TO A PERSON THE SELLER REASONABLY BELIEVES IS A QUALIFIED INSTITUTIONAL BUYER (AS DEFINED IN RULE 144A UNDER THE SECURITIES ACT) THAT IS PURCHASING FOR

ITS OWN ACCOUNT OR FOR THE ACCOUNT OF ANOTHER QUALIFIED INSTITUTIONAL BUYER AND TO WHOM NOTICE IS GIVEN THAT THE TRANSFER IS BEING MADE IN RELIANCE ON RULE 144A, ALL IN COMPLIANCE WITH RULE 144A (IF AVAILABLE); OR (D) UNDER ANY OTHER AVAILABLE EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT, INCLUDING RULE 144, IF AVAILABLE; AND (2) THAT IT WILL, PRIOR TO ANY TRANSFER OF THIS NOTE WITHIN THE LATER OF (X) SIX MONTHS (OR, IF THE COMPANY HAS NOT SATISFIED THE CURRENT PUBLIC INFORMATION REQUIREMENTS OF RULE 144, ONE YEAR) AFTER THE DATE OF ISSUANCE OF THIS NOTE AND (Y) 90 DAYS AFTER IT CEASES TO BE AN AFFILIATE (WITHIN THE MEANING OF RULE 144) OF THE COMPANY, FURNISH TO THE TRUSTEE AND THE COMPANY SUCH CERTIFICATIONS, LEGAL OPINIONS OR OTHER INFORMATION AS THEY MAY REQUIRE AND MAY RELY UPON TO CONFIRM THAT SUCH TRANSFER IS BEING MADE PURSUANT TO AN EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND APPLICABLE STATE SECURITIES LAWS. IN ANY EVENT, NO AFFILIATE OF THE COMPANY MAY RESELL THIS NOTE OTHER THAN UNDER A REGISTRATION STATEMENT THAT HAS BECOME EFFECTIVE UNDER THE SECURITIES ACT OR PURSUANT TO AN EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT IN A TRANSACTION THAT RESULTS IN SUCH NOTE NO LONGER BEING “RESTRICTED SECURITIES” (AS DEFINED UNDER RULE 144). NO REPRESENTATION IS MADE AS TO THE AVAILABILITY OF ANY EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT. EACH PURCHASER AND TRANSFEREE OF A NOTE AND THE COMMON STOCK ISSUABLE UPON CONVERSION OF A NOTE WILL BE DEEMED TO HAVE REPRESENTED BY ITS PURCHASE AND HOLDING OF THE NOTE AND THE COMMON STOCK ISSUABLE UPON CONVERSION OF THE NOTE THAT (A) ITS PURCHASE AND HOLDING OF THE NOTE AND THE COMMON STOCK ISSUABLE UPON CONVERSION OF THE NOTE IS NOT MADE ON BEHALF OF OR WITH “PLAN ASSETS” OF ANY PLAN SUBJECT TO TITLE I OF ERISA, SECTION 4975 OF THE CODE OR ANY SIMILAR LAW OR (B) ITS PURCHASE AND HOLDING OF THE NOTE AND THE COMMON STOCK ISSUABLE UPON CONVERSION OF THE NOTE WILL NOT RESULT IN A NON-EXEMPT PROHIBITED TRANSACTION UNDER SECTION 406 OF ERISA, SECTION 4975 OF THE CODE OR ANY SIMILAR LAW.

MANNKIND CORPORATION
5.75% Convertible Senior Subordinated Exchange Notes due 2018

No. _____ $

CUSIP No.

ISIN No.

MannKind Corporation, a corporation duly organized and validly existing under the laws of the state of Delaware (herein called the "**Company**," which term includes any successor corporation or other entity under the Indenture referred to on the reverse hereof), for value received hereby promises to pay to CEDE & CO., or registered assigns, the principal sum of $[__] (which amount may from time to time be increased or decreased to such other principal amounts as permitted by the Indenture by adjustments made on the records of the Trustee or the Custodian of the Depositary as set forth in Schedule A hereto, in accordance with the rules and procedures of the Depositary) on August 15, 2018, and interest thereon as set forth below.

This Note shall bear interest at the rate of 5.75% per year from the date of issuance of such Note or from the most recent date to which interest has been paid or duly provided for, to the date the principal amount of such Note is paid or deemed paid, as the case may be. Interest is payable semi-annually in arrears on each February 15 and August 15 (or if any such day is not a Business Day, the immediately following Business Day), commencing February 15, 2016, to the holder of record on February 1 or August 1 (whether or not such day is a Business Day) immediately preceding such Interest Payment Date (Regular Record Date).

Interest on the Notes shall be computed on the basis of a 360-day year comprised of twelve 30-day months

Interest not paid when due and any interest on principal or interest not paid when due will be paid to Holders on a special record date, which will be the 15th day preceding the day fixed by the Company for the payment of such interest, whether or not such day is a Business Day. At least 15 days before a special record date, the Company will send to each Holder and to the Trustee a notice that sets forth the special record date, the payment date and the amount of interest to be paid.

Payment of the principal of, and accrued and unpaid interest on, this Note shall be made at the office or agency of the Company maintained for that purpose in such lawful money of the United States of America as at the time of payment shall be legal tender for the payment of public and private debts; *provided*,

however, that interest on any Notes in certificated form (i) to the Person entitled thereto having an aggregate principal amount of $2,000,000 or less, by check mailed to such Person at the address set forth in the Note Register and (ii) to the Person entitled thereto having an aggregate principal amount of more than $2,000,000, either by check mailed to such Person or, upon application by such Person to the Note Registrar not later than the relevant Regular Record Date, by wire transfer in immediately available funds to such Person's account within the United States, which application and wire transfer instructions shall remain in effect until such Person notifies, in writing, the Note Registrar to the contrary.

Reference is made to the further provisions of this Note set forth on the reverse hereof, including, without limitation, provisions giving the Holder of this Note the right to convert this Note into shares of Common Stock (together with cash in lieu of fractional shares) 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.

THIS NOTE SHALL BE DEEMED TO BE A CONTRACT MADE UNDER THE LAWS OF NEW YORK, AND FOR ALL PURPOSES SHALL BE CONSTRUED IN ACCORDANCE WITH THE LAWS OF NEW YORK, WITHOUT REGARD TO CONFLICTS OF LAWS PRINCIPLES THEREOF.

This Note 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.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, the Company has caused this Note to be duly executed.

MANNKIND CORPORATION

By: _____
Name:
Title:

Dated:

TRUSTEE'S CERTIFICATE OF AUTHENTICATION
Wells Fargo Bank, National Association,
as Trustee, certifies that this is one of the Notes described
in the within-named Indenture.

By: _____
Authorized Signatory

[FORM OF REVERSE OF NOTE]

MANNKIND CORPORATION
5.75% Convertible Senior Subordinated Exchange Notes due 2018

This Note is one of a duly authorized issue of the Notes of the Company, designated as its 5.75% Convertible Senior Subordinated Exchange Notes due 2018 (herein called the "**Notes**"), all issued or to be issued under and pursuant to an Indenture dated as of August 10, 2015 (herein called the "**Indenture**"), between the Company and Wells Fargo Bank, National Association (herein called the "**Trustee**"), 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 Notes. Additional Notes may be issued in an unlimited aggregate principal amount, subject to certain conditions specified in the Indenture.

All payments on the Notes, including the payment of principal, Fundamental Change Purchase Price or Redemption Price, interest (including Special Interest and Additional Interest) on the Notes, will be subordinated to the prior payment in full in cash (or other payment satisfactory to the holders of Designated Senior Debt) of all of the Designated Senior Debt and the subordination is for the benefit of and enforceable by the holders of the Designated Senior Debt.

In case an Event of Default, as defined in the Indenture, shall have occurred and be continuing, the principal of and accrued and unpaid interest, if any, on all Notes may be declared, by either the Trustee or Holders of not less than 25% in aggregate principal amount of Notes 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.

Subject to the terms and conditions of the Indenture, the Company will make all payments and deliveries in respect of the Redemption Price, the Fundamental Change Purchase Price and the principal amount on the Maturity Date, as the case may be, to the Holder who surrenders a Note to a Paying Agent to collect such payments in respect of the Note. 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 Indenture contains provisions permitting the Company and the Trustee in certain circumstances, without the consent of the Holders of the Notes, and in other circumstances, with the consent of the Holders of not less than a majority in aggregate principal amount of the Notes at the time outstanding, evidenced as in the Indenture provided, to execute supplemental indentures

modifying the terms of the Indenture and the Notes 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 Notes at the time outstanding may on behalf of the Holders of all of the Notes waive any past Default or Event of Default under the Indenture and its consequences.

No reference herein to the Indenture and no provision of this Note or of the Indenture shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay the principal of and accrued and unpaid interest, if any, on this Note at the place, at the respective times, at the rate and in the lawful money herein prescribed or to satisfy its obligation to convert the Notes.

The Notes are issuable in registered form without coupons in denominations of $1,000 principal amount and multiples 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, Notes may be exchanged for a like aggregate principal amount of Notes 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 tax, assessments or other governmental charges that may be imposed in connection therewith as a result of the name of the Holders of the new Notes issued upon such exchange of Notes being different from the name of the Holder of the old Notes surrendered for such exchange.

The Notes are not subject to redemption through the operation of any sinking fund.

On or after the date that is one year following the original Issue Date of the Notes, the Company may redeem the Notes in whole or in part for cash, subject to certain conditions described in the Indenture, at any time prior to the Maturity Date. The Redemption Price will equal 100% of the principal amount of the Notes to be redeemed, plus accrued and unpaid interest, if any, to, but excluding, the Redemption Date, as defined in the Indenture.

Upon the occurrence of a Fundamental Change, the Company will offer to purchase any and all of the Notes. The Holder has the right, at such Holder’s option, to accept such offer and require the Company to purchase for cash all of such Holder’s Notes or any portion thereof (in principal amounts of $1,000 or multiples thereof) on the Fundamental Change Purchase Date at a price equal to the Fundamental Change Purchase Price.

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 the Maturity Date, to convert any Notes or portion thereof that is $1,000 or a multiple thereof, into shares of Common Stock (together with cash in

lieu of fractional shares) at a Conversion Rate specified in the Indenture, as adjusted from time to time as provided in the Indenture.

Terms used in this Note and defined in the Indenture are used herein as therein defined.

ABBREVIATIONS

The following abbreviations, when used in the inscription of the face of this Note, shall be construed as though they were written out in full according to applicable laws or regulations:

TEN COM = as tenants in common

UNIF GIFT MIN ACT = Uniform Gifts to Minors Act

CUST = Custodian

TEN ENT = as tenants by the entireties

JT TEN = joint tenants with right of survivorship and not as tenants in common

Additional abbreviations may also be used though not in the above list.

SCHEDULE A

MANNKIND CORPORATION
5.75% Convertible Senior Subordinated Exchange Notes due 2018

The initial principal amount of this Global Note is $27,690,000. The following increases or decreases in this Global Note have been made:

Date of Exchange	Amount of decrease in Principal Amount of this Global Note	Amount of increase in Principal Amount of this Global Note	Principal Amount of this Global Note following such decrease or increase	Signature of authorized signatory of Trustee or Custodian

ATTACHMENT 1

[FORM OF NOTICE OF CONVERSION]
5.75% Convertible Senior Subordinated Exchange Notes due 2018

To: MannKind Corporation

The undersigned registered owner of this Note hereby exercises the option to convert this Note, or the portion hereof (that is $1,000 principal amount or a multiple thereof) below designated, and the Company, at its election, may deliver shares of Common Stock (together with cash in lieu of fractional shares) in accordance with the terms of the Indenture referred to in this Note, and directs that any shares of Common Stock issuable and deliverable upon such conversion, and any Notes representing any unconverted principal amount hereof, be issued and delivered to the registered Holder hereof unless a different name has been indicated below. If any shares of Common Stock or any portion of this Note not converted are to be issued in the name of a Person other than the undersigned, the undersigned will pay all transfer taxes payable with respect thereto. Any amount required to be paid to the undersigned on account of interest accompanies this Note.

Dated: _____ _____

Signature(s)

_____
Signature Guarantee

Signature(s) must be guaranteed
by an eligible Guarantor Institution
(banks, stock brokers, savings and
loan associations and credit unions)
with membership in an approved
signature guarantee medallion program
pursuant to Securities and Exchange
Commission Rule 17Ad-15 if
shares of Common Stock are to be issued, or Notes to
be delivered, other than to and in the name of the
registered Holder.

Fill in for registration of shares if
to be issued, and Notes if to
be delivered, other than to and in the
name of the registered Holder:

_____
(Name)

_____
(Street Address)

_____
(City, State and Zip Code)
Please print name and address

Principal amount to be converted (if less than all):
$_____,000

NOTICE: The above signature(s) of the Holder(s) hereof must correspond with the name as written upon the face of the Note in every particular without alteration or enlargement or any change whatever.

_____
Social Security or Other Taxpayer
Identification Number

ATTACHMENT 2

[FORM OF FUNDAMENTAL CHANGE PURCHASE NOTICE]
5.75% Convertible Senior Subordinated Exchange Notes due 2018

To: MannKind Corporation

The undersigned registered owner of this Note hereby acknowledges receipt of a notice from MannKind Corporation (the "**Company**") as to the occurrence of a Fundamental Change with respect to the Company, offering to purchase the Notes and specifying the Fundamental Change Purchase Date. The undersigned registered owner of this Note hereby accepts the Company's offer to purchase the Notes and instructs the Company to pay to the registered Holder hereof in accordance with the applicable provisions of the Indenture referred to in this Note (1) the entire principal amount of this Note, or the portion thereof (that is $1,000 principal amount or a multiple thereof) below designated, and (2) if such Fundamental Change Purchase Date does not fall during the period after a Regular Record Date and on or prior to the corresponding Interest Payment Date, accrued and unpaid interest thereon to, but excluding, such Fundamental Change Purchase Date.

In the case of certificated Notes, the certificate numbers of the Notes to be purchased are as set forth below:

Dated: _____

_____
Signature(s)

_____
Social Security or Other Taxpayer
Identification Number

Principal amount to be repaid (if less than all):
$_____,000

NOTICE: The above signature(s) of the Holder(s) hereof must correspond with the name as written upon the face of the Note in every particular without alteration or enlargement or any change whatever.

ATTACHMENT 3

[FORM OF ASSIGNMENT AND TRANSFER]

For value received _____ hereby sell(s), assign(s) and transfer(s) unto _____ (Please insert social security or Taxpayer Identification Number of assignee) the within Note, and hereby irrevocably constitutes and appoints _____ _____ attorney to transfer the said Note on the books of the Company, with full power of substitution in the premises.

In connection with any transfer of the within Note occurring prior to the Resale Restriction Termination Date, as defined in the Indenture governing such Note, the undersigned confirms that such Note is being transferred:

☐ To MannKind Corporation or a subsidiary thereof; or

☐ Pursuant to the registration statement that has become or been declared effective under the Securities Act of 1933, as amended; or

☐ Pursuant to and in compliance with Rule 144A under the Securities Act of 1933, as amended; or

☐ Pursuant to and in compliance with Rule 144 under the Securities Act of 1933, as amended; or

☐ Pursuant to another available exemption from registration under the Securities Act of 1933, as amended.

Dated: _____

_____

_____
Signature(s)

_____
Signature Guarantee

Signature(s) must be guaranteed by an eligible Guarantor Institution (banks, stock brokers, savings and loan associations and credit unions) with membership in an approved signature guarantee medallion program pursuant to Securities and Exchange Commission Rule 17Ad-15 if Notes are to be delivered, other than to and in the name of the registered Holder.

NOTICE: The signature on the assignment must correspond with the name as written upon the face of the Note in every particular without alteration or enlargement or any change whatever.

Exhibit 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER

PURSUANT TO RULE 13a-14(a) OR 15d-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED

I, Hakan S. Edstrom, certify that:

1. I have reviewed this quarterly report on Form 10-Q for the quarterly period ended June 30, 2015 of MannKind Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 10, 2015

/s/ Hakan S. Edstrom

Hakan S. Edstrom
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER

PURSUANT TO RULE 13a-14(a) OR 15d-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED

I, Matthew J. Pfeffer, certify that:

1. I have reviewed this quarterly report on Form 10-Q for the quarterly period ended June 30, 2015 of MannKind Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 10, 2015

/s/ Matthew J. Pfeffer

Matthew J. Pfeffer
Corporate Vice President and Chief Financial Officer
(Principal Financial and Accounting Officer)

Exhibit 32

CERTIFICATION OF
CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER
PURSUANT TO
RULE 13a-14(b) OR 15d-14(b) OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED, AND SECTION 1350 OF
CHAPTER 63 OF TITLE 18 OF THE UNITED STATES CODE (18 U.S.C. § 1350)

In connection with the filing of the quarterly report of MannKind Corporation (the "Company") on Form 10-Q for the quarterly period ended June 30, 2015, as filed with the Securities and Exchange Commission on or about the date hereof to which this certification is attached as Exhibit 32 (the "Report") and pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. §1350), Hakan S. Edstrom, President and Chief Executive Officer of the Company, and Matthew J. Pfeffer, Corporate Vice President and Chief Financial Officer of the Company, each hereby certifies that to the best of his knowledge:

1. The Report fully complies with the requirements of Section 13(a) or Section 15(d) of the Exchange Act; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: August 10, 2015

In witness whereof, the undersigned have set their hands hereto as of the 10th day of August 2015.

/s/ Hakan S. Edstrom
Hakan S. Edstrom
President and Chief Executive Officer

/s/ Matthew J. Pfeffer
Matthew J. Pfeffer
Corporate Vice President and Chief Financial Officer

This certification is being furnished solely to accompany this quarterly report on Form 10-Q pursuant to 18 U.S.C. Section 1350, and is not deemed filed for purposes of Section 18 of the Exchange Act or the Securities Act of 1933, as amended, and is not incorporated by reference into any filing of the Company, whether made before or after the date hereof, regardless of any general incorporation language contained in such filing.