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

FORM 8-K

**CURRENT REPORT
Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934**

Date of report (Date of earliest event reported): December 22, 2015

Merrimack Pharmaceuticals, Inc.
(Exact Name of Registrant as Specified in Charter)

Delaware
(State or Other Jurisdiction
of Incorporation)

001-35409
(Commission
File Number)

04-3210530
(IRS Employer
Identification No.)

**One Kendall Square, Suite B7201
Cambridge, MA**
(Address of Principal Executive Offices)

02139
(Zip Code)

Registrant's telephone number, including area code: (617) 441-1000

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

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

Item 1.01. Entry into a Material Definitive Agreement.

On December 22, 2015, Merrimack Pharmaceuticals, Inc. (the “Company”) closed a private placement of \$175,000,000 in aggregate principal amount of its 11.5% senior secured notes due 2022 (the “Notes”) and entered into an indenture (the “Indenture”) with U.S. Bank National Association, a national banking association, as trustee (the “Trustee”) and collateral agent (the “Collateral Agent”), governing the Notes. The Notes were sold only to qualified institutional buyers within the meaning of Rule 144A under the Securities Act of 1933, as amended (the “Securities Act”). The Notes were sold at a price equal to 100% of the principal amount of the Notes. Morgan Stanley & Co. LLC served as sole placement agent for the private placement of the Notes.

The Notes have not been and will not be registered under the Securities Act or the securities laws of any other jurisdiction and may not be offered or sold in the United States without registration or an applicable exemption from registration requirements. The holders of the Notes do not have any registration rights.

The Company estimates that the net proceeds from the private placement will be approximately \$168 million, after deducting the estimated private placement expenses payable by the Company.

The Notes bear cash interest at a rate of 11.5% per year, payable semi-annually on June 15 and December 15 of each year, beginning on June 15, 2016. The Company will pay semi-annual installments of principal on the Notes of \$21,875,000 each, subject to adjustment as provided in the Notes, on June 15 and December 15 of each year, beginning on June 15, 2019. The Notes will mature on December 15, 2022, unless earlier redeemed or repurchased in accordance with their terms prior to such date.

The Company may redeem the Notes at its option, in whole or in part from time to time, prior to December 22, 2016 at a redemption price equal to 100% of the principal amount of the Notes being redeemed, plus the greater of (x) 1.0% of the principal amount to be redeemed and (y) the amount, if any, by which (a) the present value at such redemption date of (i) 111.5% multiplied by the principal amount to be redeemed plus (ii) all required interest payments due on the principal amount be redeemed through December 22, 2016 (excluding accrued but unpaid interest, if any, to the redemption date), computed using a discount rate equal to the treasury rate (as defined in the Indenture governing the Notes) in respect of such redemption date plus 100 basis points, exceeds (b) the principal amount to be redeemed, in each case, plus accrued and unpaid interest, if any, to the redemption date. The Company may redeem the Notes at its option, in whole or in part from time to time, on or after December 22, 2016 at a redemption price equal to: (i) from and including December 22, 2016 to and including December 21, 2017, 111.5% of the principal amount of the Notes to be redeemed, (ii) from and including December 22, 2017 to and including December 21, 2018, 105.75% of the principal amount of the Notes to be redeemed, (iii) from and including December 22, 2018 to and including December 21, 2019, 102.875% of the principal amount of the Notes to be redeemed, and (iv) from and including December 22, 2019 and thereafter, 100% of the principal amount of the Notes to be redeemed, in each case, plus accrued and unpaid interest to the redemption date. No sinking fund is provided for the Notes, which means that the Company is not required to periodically redeem or retire the Notes.

The Notes are senior secured obligations of the Company and will be equal in right of payment to all existing and future pari passu indebtedness of the Company (including the Company’s outstanding 4.50% convertible senior notes due 2020), will be senior in right of payment to all existing and future subordinated indebtedness of the Company, will have the benefit of a security interest in the Notes collateral and will be junior in lien priority in respect of any asset-based lending collateral that secures any first priority lien obligations from time to time.

Under the terms of the Indenture, the Company entered into a collateral agreement, dated as of December 22, 2015, with the Collateral Agent and the subsidiary parties from time to time party thereto (the “Collateral Agreement”). Pursuant to the terms of the Collateral Agreement, the Notes and the related guarantees are secured by a first priority lien on substantially all of the Company’s and the guarantors’ assets, in each case, subject to certain prior liens and other exclusions, and a pledge of 65% of the voting equity interests and 100% of the non-voting equity interests of the Company’s foreign subsidiaries as reasonably requested by the collateral agent.

If the Company undergoes a change of control (as defined in the Indenture governing the Notes), subject to certain conditions, holders of the Notes may require the Company to repurchase for cash all or part of their Notes at

a repurchase price equal to 101% of the principal amount of the Notes to be repurchased, plus accrued and unpaid interest to the date of repurchase. In addition, upon the occurrence of certain asset sales, other than sales of asset-based lending collateral that secures any first priority lien obligations, the Company must offer to repurchase the Notes with the net proceeds of such asset sale, at a price equal to 100% of the principal amount of the Notes to be repurchased, plus accrued and unpaid interest to the date of repurchase.

Pursuant to the Indenture, the Company and its restricted subsidiaries must also comply with certain affirmative covenants, such as furnishing financial statements to the holders of the Notes, and negative covenants, including limitations on the following: the incurrence of debt; the issuance of the Company's preferred stock; the payment of dividends, the repurchase of shares and making certain other restricted payments; the prepayment, redemption or repurchase of subordinated debt; the sale, lease or transfer of property and assets; engaging in transactions with affiliates; and the making of investments other than those permitted by the Indenture.

The Indenture governing the Notes contains customary events of default with respect to the Notes (including the Company's failure to make any payment of principal or interest on the Notes when due and payable), and upon certain events of default occurring and continuing, the Trustee by notice to the Company, or the holders of at least 25% in principal amount of the outstanding Notes by notice to the Company and the Trustee, may (subject to the provisions of the Indenture) declare 100% of the principal of and accrued and unpaid interest, if any, on all the Notes to be due and payable. In the case of certain events of bankruptcy, insolvency or reorganization involving the Company or a restricted subsidiary, 100% of the principal of, and accrued and unpaid interest on, the Notes will automatically become due and payable. Upon such a declaration of acceleration, such principal and accrued and unpaid interest, if any, will be due and payable immediately.

The above description of the Indenture, the Notes and the Collateral Agreement is a summary only and is qualified in its entirety by reference to the terms of the Indenture (including the Form of Note) and the Collateral Agreement, filed as Exhibits 4.1 and 10.1, respectively, to this Current Report on Form 8-K and incorporated herein by reference.

This Current Report on Form 8-K does not constitute an offer to sell, or the solicitation of an offer to buy, the Notes.

Item 1.02. Termination of a Material Definitive Agreement.

On December 22, 2015, the Company used a portion of the net proceeds from the private placement of the Notes to repay an aggregate of approximately \$41.4 million (the "Payoff Amount"), comprised of \$40.0 million in aggregate principal amount, \$0.2 million in accrued interest and \$1.2 million in fees, owed to Hercules Technology Growth Capital, Inc. ("Hercules") under the Company's loan and security agreement, as amended, with Hercules dated as of November 8, 2012 (the "Loan Agreement"). Upon Hercules' receipt of the Payoff Amount, the Loan Agreement terminated.

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

The information required by this Item 2.03 relating to the Notes and the Indenture is contained in Item 1.01 above and is incorporated herein by reference.

Item 8.01. Other Events.

On December 22, 2015, the Company announced the closing of its private placement of the Notes. The full text of the press release issued in connection with the announcement is filed as Exhibit 99.1 to this Current Report on Form 8-K and is incorporated herein by reference.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

See Exhibit Index attached hereto.

SIGNATURE

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

MERRIMACK PHARMACEUTICALS, INC.

Date: December 22, 2015

By: /s/ Jeffrey A. Munsie

Jeffrey A. Munsie
General Counsel

EXHIBIT INDEX

<u>Exhibit No.</u>	<u>Description</u>
4.1	Indenture (including the Form of Note), dated as of December 22, 2015, among Merrimack Pharmaceuticals, Inc., any Guarantor that becomes a party thereto and U.S. Bank National Association, a national banking association, as trustee and collateral agent
10.1	Collateral Agreement, dated as of December 22, 2015, among Merrimack Pharmaceuticals, Inc., the Subsidiary Parties from time to time party thereto and U.S. Bank National Association, a national banking association, as trustee and collateral agent
99.1	Press release issued by Merrimack Pharmaceuticals, Inc. on December 22, 2015

MERRIMACK PHARMACEUTICALS, INC.,

as Issuer,

and any Guarantor that becomes party hereto pursuant to Section 4.10 hereof

11.5% Senior Secured Notes due 2022

INDENTURE

Dated as of December 22, 2015

U.S. BANK NATIONAL ASSOCIATION,
as Trustee and as Collateral Agent

TABLE OF CONTENTS

	Page
ARTICLE 1 DEFINITIONS AND INCORPORATION BY REFERENCE	1
SECTION 1.01. Definitions	1
SECTION 1.02. Other Definitions	37
SECTION 1.03. Rules of Construction	38
ARTICLE 2 THE SECURITIES	39
SECTION 2.01. Amount of Securities	39
SECTION 2.02. Form and Dating	39
SECTION 2.03. Execution and Authentication	39
SECTION 2.04. Registrar and Paying Agent	40
SECTION 2.05. Paying Agent to Hold Money in Trust	40
SECTION 2.06. Holder Lists	41
SECTION 2.07. Transfer and Exchange	41
SECTION 2.08. Replacement Securities	42
SECTION 2.09. Outstanding Securities	42
SECTION 2.10. Temporary Securities	43
SECTION 2.11. Cancellation	43
SECTION 2.12. Defaulted Interest	43
SECTION 2.13. CUSIP Numbers, ISINs, etc	43
SECTION 2.14. Calculation of Principal Amount of Securities	44
SECTION 2.15. Statement to Holders	44
ARTICLE 3 REDEMPTION	44
SECTION 3.01. Redemption	44
SECTION 3.02. Applicability of Article	45
SECTION 3.03. Notices to Trustee	45
SECTION 3.04. Selection of Securities to Be Redeemed	45
SECTION 3.05. Notice of Optional Redemption	45
SECTION 3.06. Effect of Notice of Redemption	46
SECTION 3.07. Deposit of Redemption Price	46
SECTION 3.08. Securities Redeemed in Part	47
ARTICLE 4 COVENANTS	47
SECTION 4.01. Payment of Securities	47
SECTION 4.02. Reports and Other Information	48

TABLE OF CONTENTS
(continued)

	Page	
SECTION 4.03.	Limitation on Incurrence of Indebtedness and Issuance of Disqualified Stock and Preferred Stock	50
SECTION 4.04.	Limitation on Restricted Payments	56
SECTION 4.05.	Dividend and Other Payment Restrictions Affecting Subsidiaries	61
SECTION 4.06.	Asset Sales and MM-398 Excess US License Proceeds	63
SECTION 4.07.	Transactions with Affiliates	67
SECTION 4.08.	Change of Control	70
SECTION 4.09.	Further Instruments and Acts	72
SECTION 4.10.	Future Guarantors	72
SECTION 4.11.	Liens	72
SECTION 4.12.	Maintenance of Office or Agency	73
SECTION 4.13.	After-Acquired Property	74
SECTION 4.14.	Line of Business	74
SECTION 4.15.	Use of Proceeds	74
SECTION 4.16.	Existence	74
ARTICLE 5 SUCCESSOR COMPANY		75
SECTION 5.01.	When Issuer May Merge or Transfer Assets	75
ARTICLE 6 DEFAULTS AND REMEDIES		77
SECTION 6.01.	Events of Default	77
SECTION 6.02.	Acceleration	79
SECTION 6.03.	Other Remedies	80
SECTION 6.04.	Waiver of Past Defaults	80
SECTION 6.05.	Control by Majority	80
SECTION 6.06.	Limitation on Suits	80
SECTION 6.07.	Rights of the Holders to Receive Payment	81
SECTION 6.08.	Collection Suit by Trustee	81
SECTION 6.09.	Trustee May File Proofs of Claim	81
SECTION 6.10.	Priorities	81
SECTION 6.11.	Undertaking for Costs	82
SECTION 6.12.	Waiver of Stay or Extension Laws	82

TABLE OF CONTENTS
(continued)

	Page
ARTICLE 7 TRUSTEE	82
SECTION 7.01. Duties of Trustee	82
SECTION 7.02. Rights of Trustee	84
SECTION 7.03. Individual Rights of Trustee	85
SECTION 7.04. Trustee's Disclaimer	85
SECTION 7.05. Notice of Defaults	85
SECTION 7.06. Compensation and Indemnity	86
SECTION 7.07. Replacement of Trustee	87
SECTION 7.08. Successor Trustee by Merger	87
SECTION 7.09. Eligibility; Disqualification	88
SECTION 7.10. Preferential Collection of Claims Against the Issuer	88
SECTION 7.11. Confidential Information	88
ARTICLE 8 DISCHARGE OF INDENTURE; DEFEASANCE	89
SECTION 8.01. Discharge of Liability on Securities; Defeasance	89
SECTION 8.02. Conditions to Defeasance	91
SECTION 8.03. Application of Trust Money	91
SECTION 8.04. Repayment to Issuer	92
SECTION 8.05. Indemnity for Government Obligations	92
SECTION 8.06. Reinstatement	92
ARTICLE 9 AMENDMENTS AND WAIVERS	92
SECTION 9.01. Without Consent of the Holders	92
SECTION 9.02. With Consent of the Holders	94
SECTION 9.03. Revocation and Effect of Consents and Waivers	95
SECTION 9.04. Notation on or Exchange of Securities	95
SECTION 9.05. Trustee to Sign Amendments	96
SECTION 9.06. Payment for Consent	96
SECTION 9.07. Additional Voting Terms; Calculation of Principal Amount	96
ARTICLE 10 GUARANTEES	96
SECTION 10.01. Guarantees	96
SECTION 10.02. Limitation on Liability	99
SECTION 10.03. Successors and Assigns	99

TABLE OF CONTENTS
(continued)

	Page
SECTION 10.04.	No Waiver 99
SECTION 10.05.	Modification 100
SECTION 10.06.	Execution of Supplemental Indenture for Future Guarantors 100
SECTION 10.07.	No Impairment 100
ARTICLE 11 SECURITY DOCUMENTS	100
SECTION 11.01.	Collateral and Security Documents 100
SECTION 11.02.	{Omitted}. 101
SECTION 11.03.	Release of Collateral 101
SECTION 11.04.	Permitted Releases Not To Impair Lien 102
SECTION 11.05.	Suits To Protect the Collateral 102
SECTION 11.06.	Authorization of Receipt of Funds by the Trustee Under the Security Documents 103
SECTION 11.07.	Purchaser Protected 103
SECTION 11.08.	Powers Exercisable by Receiver or Trustee 103
SECTION 11.09.	Release Upon Termination of the Issuer's Obligations 103
SECTION 11.10.	Collateral Agent 104
ARTICLE 12 MISCELLANEOUS	105
SECTION 12.01.	Notices 105
SECTION 12.02.	Certificate and Opinion as to Conditions Precedent 106
SECTION 12.03.	Statements Required in Certificate or Opinion 106
SECTION 12.04.	When Securities Disregarded 107
SECTION 12.05.	Rules by Trustee, Paying Agent and Registrar 107
SECTION 12.06.	Legal Holidays 107
SECTION 12.07.	GOVERNING LAW; SUBMISSION TO JURISDICTION; WAIVER OF IMMUNITY 107
SECTION 12.08.	No Recourse Against Others 108
SECTION 12.09.	Successors 108
SECTION 12.10.	Multiple Originals 108
SECTION 12.11.	Table of Contents; Headings 108
SECTION 12.12.	Indenture Controls 108
SECTION 12.13.	Severability 108

TABLE OF CONTENTS
(continued)

		Page
SECTION 12.14.	Currency of Account; Conversion of Currency; Foreign Exchange Restrictions	108
SECTION 12.15.	Intercreditor Agreement Governs	110
SECTION 12.16.	Tax Matters.	111
SECTION 12.17.	USA PATRIOT Act	111
Appendix A	- Provisions Relating to Securities	A-1
EXHIBIT INDEX		
Exhibit A	- Form of Security and Trustee's Certificate of Authentication	A-1
Exhibit B	- Form of Supplemental Indenture	B-1
Exhibit C	- Form of Intercreditor Agreement	C-1
Exhibit D	- Form of Confidentiality Agreement	D-1
Exhibit E	- Payment Subordination Terms	E-1
Exhibit F	- Form of Portfolio Interest Certificate	F-1

INDENTURE dated as of December 22, 2015 among Merrimack Pharmaceuticals, Inc., a Delaware corporation with an address at One Kendall Square, Suite B7201, Cambridge, Massachusetts 02139 (the “Issuer”), any Guarantor that becomes party hereto pursuant to Section 4.10, and U.S. Bank National Association, as trustee (as more fully defined in Section 1.01, the “Trustee”) and as collateral agent (as more fully defined in Section 1.01, the “Collateral Agent”).

Each party agrees as follows for the benefit of the other parties and for the equal and ratable benefit of the Holders of the Issuer’s 11.5% Senior Secured Notes due 2022 (the “Securities”).

ARTICLE 1

DEFINITIONS AND INCORPORATION BY REFERENCE

SECTION 1.01. Definitions.

“ABL Collateral” means all or any of the following assets and properties owned as of the Issue Date, or at any time thereafter acquired, by the Issuer or any Restricted Subsidiary: (a) all Inventory; (b) all Accounts arising from the sale of Inventory or the provision of services; (c) to the extent evidencing, governing or securing the obligations of Account Debtors in respect of the items referred to in the preceding clauses (a) and (b), all (i) General Intangibles, (ii) Chattel Paper, (iii) Instruments, (iv) Documents, (v) Payment Intangibles (including tax refunds), other than any Payment Intangibles that represent tax refunds in respect of or otherwise relate to real property, Fixtures or Equipment and (vi) Supporting Obligations; (d) collection accounts and Deposit Accounts, including any Lockbox Account, and any cash or other assets in any such accounts constituting Proceeds of clause (a) or (b) (other than identifiable cash proceeds in respect of real estate, Fixtures or Equipment); (e) all Indebtedness that arises from cash advances to enable the obligor or obligors thereon to acquire Inventory, and any Deposit Account into which such cash advances are deposited (provided no proceeds from the sale of the Securities are deposited therein); (f) all books and records related to the foregoing; and (g) all Products and Proceeds of any and all of the foregoing in whatever form received, including proceeds of insurance policies related to Inventory or Accounts arising from the sale of Inventory of the Issuer or any Restricted Subsidiary or the provision of services by the Issuer or any Restricted Subsidiary and business interruption insurance. All capitalized terms used in this definition and not defined elsewhere herein have the meanings assigned to them in the Uniform Commercial Code.

“Acquired Indebtedness” means, with respect to any specified Person:

- (1) Indebtedness of any other Person existing at the time such other Person is merged, consolidated or amalgamated with or into or became a Restricted Subsidiary of such specified Person, and
- (2) Indebtedness secured by a Lien encumbering any asset acquired by such specified Person.

“Affiliate” of any specified Person means any other Person directly or indirectly controlling or controlled by or under common control with such specified Person. For purposes of this definition, “control” (including, with correlative meanings, the terms “controlling”, “controlled by” and “under common control with”), as used with respect to any Person, means the possession, directly or indirectly, of the power to direct or cause the direction of the management or policies of such Person, whether through the ownership of voting securities, by agreement or otherwise.

“Applicable Premium” means, with respect to any Security (or portion thereof) to be redeemed on any redemption date, the greater of (x) 1.0% of the amount of principal of such Security to be redeemed and (y) the amount, if any, by which (a) the present value at such redemption date of (i) the redemption price of the amount of principal of such Security to be redeemed on December 22, 2016 (as stated in the table immediately following the second paragraph under Paragraph 5 of the form of Security set forth in Exhibit A hereto) plus (ii) all required interest payments due on the amount of principal of such Security to be redeemed through December 22, 2016 (excluding accrued but unpaid interest, if any, to the redemption date), computed using a discount rate equal to the Treasury Rate in respect of such redemption date plus 100 basis points, exceeds (b) the amount of principal of such Security to be redeemed.

“Asset Sale” means:

(1) the sale, conveyance, transfer or other disposition (whether in a single transaction or a series of related transactions) of property or assets (including by way of a Sale/Leaseback Transaction) of the Issuer or any Restricted Subsidiary of the Issuer (each referred to in this definition as a “disposition”) or

(2) the issuance or sale of Equity Interests (other than directors’ qualifying shares and shares issued to foreign nationals or other third parties to the extent required by applicable law) of any Restricted Subsidiary (other than to the Issuer or another Restricted Subsidiary of the Issuer) (whether in a single transaction or a series of related transactions),

in each case other than:

(a) a disposition of (i) Cash Equivalents or Investment Grade Securities, (ii) obsolete, damaged or worn out property or equipment in the ordinary course of business, (iii) Inventory (as defined in the Uniform Commercial Code) or goods (or other assets) held for sale in the ordinary course of business or (iv) equipment or other assets as part of a trade-in for replacement equipment;

(b) the disposition of all or substantially all of the assets of the Issuer in a manner permitted pursuant to Section 5.01 or any disposition that constitutes a Change of Control;

(c) any Restricted Payment or Permitted Investment that is permitted to be made, and is made, under Section 4.04 (including the issuance or sale of Equity Interests of any Restricted Subsidiary in connection with any Investment permitted under clause (14) or (23) of the definition of “Permitted Investments”);

(d) any disposition of assets or issuance or sale of Equity Interests of the Issuer or any Restricted Subsidiary, which assets or Equity Interests so disposed or issued have an aggregate Fair Market Value (as determined in good faith by the Issuer) of less than \$1,000,000;

(e) any disposition of property or assets, or the issuance of securities, by a Restricted Subsidiary of the Issuer to the Issuer or by the Issuer or a Restricted Subsidiary of the Issuer to a Restricted Subsidiary of the Issuer (or to an entity that contemporaneously therewith becomes a Restricted Subsidiary);

(f) any exchange of assets (including a combination of assets and Cash Equivalents) for assets related to a Similar Business of comparable or greater market value or usefulness to the business of the Issuer and its Restricted Subsidiaries as a whole, as determined in good faith by the Issuer, which in the event of an exchange of assets with a Fair Market Value in excess of (A) \$1,000,000 shall be evidenced by an Officers' Certificate and (B) \$2,500,000 shall be set forth in a resolution approved in good faith by a majority of the Board of Directors of the Issuer;

(g) foreclosure on assets of the Issuer or any of its Restricted Subsidiaries;

(h) any sale of Equity Interests in, or Indebtedness or other securities of, an Unrestricted Subsidiary;

(i) the lease, assignment or sublease of any real or personal property in the ordinary course of business;

(j) all rights granted under any license, collaboration agreement, strategic alliance or similar arrangement providing for the licensing of Intellectual Property or the development or commercialization of Intellectual Property, provided that such license, collaboration agreement, strategic alliance or similar arrangement, taken as a whole, in the judgment of the Issuer when executed, does not materially and adversely affect the Issuer's business or condition (financial or otherwise) (for the avoidance of doubt, any such license, collaboration, strategic alliance or similar arrangement shall not result in the Issuer or any Restricted Subsidiary of the Issuer no longer owning such Intellectual Property);

(k) a transfer of accounts receivable and related assets of the type specified in the definition of "Receivables Financing" (or a fractional undivided interest therein) to or by a Receivables Subsidiary in a Qualified Receivables Financing;

(l) any surrender or waiver of contract rights or the settlement of, release of, recovery on or surrender of contract, tort or other claims of any kind;

(m) in the ordinary course of business, any swap of assets, or lease, assignment or sublease of any real or personal property, in exchange for services (including in connection with any outsourcing arrangements) of comparable or greater value or usefulness to the business of the Issuer and its Restricted Subsidiaries taken as a whole, as determined in good faith by the Issuer;

(n) any financing transaction with respect to property built or acquired by the Issuer or any of its Restricted Subsidiaries after the Issue Date, including any Sale/Leaseback Transaction or asset securitization, permitted by this Indenture;

(o) dispositions consisting of Permitted Liens;

(p) any disposition of Capital Stock of a Restricted Subsidiary pursuant to an agreement or other obligation with or to a Person (other than the Issuer or a Restricted Subsidiary of the Issuer) from whom such Restricted Subsidiary was acquired or from whom such Restricted Subsidiary acquired its business and assets (having been newly formed in connection with such acquisition), made as part of such acquisition and in each case comprising all or a portion of the consideration in respect of such sale or acquisition; and

(q) dispositions of receivables in connection with the compromise, settlement or collection thereof in the ordinary course of business or in bankruptcy or similar proceedings and exclusive of factoring or similar arrangements.

“Bank Indebtedness” means any and all amounts payable under or in respect of any Credit Agreement and the other Credit Agreement Documents as amended, restated, supplemented, waived, replaced, restructured, repaid, refunded, refinanced or otherwise modified from time to time (including after termination of such Credit Agreement), including principal, premium (if any), interest (including interest accruing on or after the filing of any petition in bankruptcy or for reorganization relating to the Issuer whether or not a claim for post-filing interest is allowed in such proceedings), fees, charges, expenses, reimbursement obligations, guarantees and all other amounts payable thereunder or in respect thereof.

“Board of Directors” means, as to any Person, the board of directors, board of managers or similar governing body, as applicable, of such Person (or, if such Person is a partnership, the board of directors or other governing body of the general partner of such Person) or any duly authorized committee thereof. References in this Indenture to directors (on a Board of Directors) shall also be deemed to refer to managers (on a Board of Managers).

“Business Day” means a day other than a Saturday, Sunday or other day on which banking institutions are authorized or required by law to close in New York City or the city in which the Corporate Trust Office is located.

“Capital Stock” means:

(1) in the case of a corporation, corporate stock or shares;

(2) in the case of an association or business entity, any and all shares, interests, participations, rights or other equivalents (however designated) of corporate stock;

(3) in the case of a partnership or limited liability company, partnership or membership interests (whether general or limited) and membership rights; and

(4) any other interest or participation that confers on a Person the right to receive a share of the profits and losses of, or distributions of assets of, the issuing Person;

in each case to the extent treated as equity in accordance with GAAP.

“Capitalized Lease Obligation” means, at the time any determination thereof is to be made, the amount of the liability in respect of a capital lease that would at such time be required to be capitalized and reflected as a liability on a balance sheet (excluding the footnotes thereto) in accordance with GAAP, as in effect on the Issue Date.

“Cash Contribution Amount” means the aggregate amount of cash contributions made to the capital of the Issuer used for purposes of calculating the amount of Indebtedness that may be Incurred as “Contribution Indebtedness” as described in the definition of “Contribution Indebtedness”; provided that such cash contributions shall cease to be treated as the Cash Contribution Amount to the extent the related Contribution Indebtedness has been reclassified in accordance with Section 4.03.

“Cash Equivalents” means:

- (1) U.S. Dollars, Canadian dollars, pounds sterling, euros or the national currency of any member state in the European Union;
- (2) securities issued or directly and fully guaranteed or insured by the U.S. government or any country that is a member of the European Union or any agency or instrumentality thereof, in each case maturing not more than two years from the date of acquisition;
- (3) certificates of deposit, time deposits and eurodollar time deposits with maturities of one year or less from the date of acquisition, bankers’ acceptances, in each case with maturities not exceeding one year and overnight bank deposits, in each case with any commercial bank having capital and surplus in excess of \$250,000,000 and whose long-term debt is rated “A” or the equivalent thereof by Moody’s or S&P (or reasonably equivalent ratings of another internationally recognized rating agency);
- (4) repurchase obligations for underlying securities of the types described in clauses (2) and (3) above entered into with any financial institution meeting the qualifications specified in clause (3) above;
- (5) commercial paper issued by a corporation (other than an Affiliate of the Issuer) rated at least “A-1” or the equivalent thereof by Moody’s or S&P (or reasonably equivalent ratings of another internationally recognized rating agency), and in each case maturing within one year after the date of acquisition;
- (6) readily marketable direct obligations issued by any state of the United States of America or any political subdivision thereof having one of the two highest rating categories obtainable from either Moody’s or S&P (or reasonably equivalent ratings of another internationally recognized rating agency), in each case with maturities not exceeding two years from the date of acquisition;

(7) Indebtedness issued by Persons (other than an Affiliate of the Issuer) with a rating of “A” or higher from S&P or “A-2” or higher from Moody’s (or reasonably equivalent ratings of another internationally recognized rating agency), in each case with maturities not exceeding two years from the date of acquisition;

(8) investment funds investing at least 95% of their assets in securities of the types described in clauses (1) through (7) above; and

(9) investments permitted by the Issuer’s board-approved investment policy, as in effect on the Issue Date.

“Change of Control” means the occurrence of any of the following events:

(i) the sale, lease or transfer, in one or a series of related transactions, of all or substantially all the assets of the Issuer and its Subsidiaries, taken as a whole, to a Person other than any of the Issuer or its Restricted Subsidiaries;

(ii) the Issuer becomes aware (by way of a report or any other filing pursuant to Section 13(d) of the Exchange Act, proxy, vote, written notice or otherwise) of the acquisition by any Person or group (within the meaning of Section 13(d)(3) or Section 14(d)(2) of the Exchange Act, or any successor provision), including any group acting for the purpose of acquiring, holding or disposing of securities (within the meaning of Rule 13d-5(b)(1) under the Exchange Act or any successor provision) in a single transaction or in a related series of transactions, by way of merger, consolidation or other business combination or purchase of beneficial ownership (within the meaning of Rule 13d-3 under the Exchange Act, or any successor provision), of more than 50% of the total voting power of the Voting Stock of the Issuer; or

(iii) the adoption of a plan relating to the Issuer’s dissolution or liquidation.

“Code” means the United States Internal Revenue Code of 1986, as amended.

“Collateral Agent” means U.S. Bank National Association in its capacity as “Collateral Agent” under this Indenture and under the Security Documents and any successor thereto in such capacity.

“Confidentiality Agreement” means a confidentiality agreement substantially in the form attached to this Indenture as Exhibit D.

“Consolidated Interest Expense” means, with respect to any Person for any period, the sum, without duplication, of:

(1) consolidated interest expense of such Person and its Restricted Subsidiaries for such period, to the extent such expense was deducted in computing Consolidated Net Income (including amortization of original issue discount, the interest

component of Capitalized Lease Obligations, and net payments and receipts (if any) pursuant to interest rate Hedging Obligations, amortization of deferred financing fees, debt issuance costs, commissions, fees and expenses and expensing of any bridge, commitment or other financing fees); plus

(2) consolidated capitalized interest of such Person and its Restricted Subsidiaries for such period, whether paid or accrued; plus

(3) commissions, discounts, yield and other fees and charges Incurred in connection with any Receivables Financing that are payable to Persons other than the Issuer and its Restricted Subsidiaries; minus

(4) interest income for such period.

For purposes of this definition, interest on a Capitalized Lease Obligation shall be deemed to accrue at an interest rate reasonably determined by the Issuer to be the rate of interest implicit in such Capitalized Lease Obligation in accordance with GAAP.

“Consolidated Leverage Ratio” means, with respect to any Person, at any date, the ratio of (i) Indebtedness of such Person and its Restricted Subsidiaries as of such date of calculation (determined on a consolidated basis in accordance with GAAP) less the amount of Cash Equivalents in excess of any Restricted Cash that would be stated on the balance sheet of such Person and its Restricted Subsidiaries and held by such Person and its Restricted Subsidiaries as of such date of determination to (ii) EBITDA of such Person for the four full fiscal quarters for which internal financial statements are available immediately preceding such date (which will, for the purposes of this calculation, not be less than zero). In the event that the Issuer or any of its Restricted Subsidiaries Incurs, repays, repurchases or redeems any Indebtedness subsequent to the commencement of the period for which the Consolidated Leverage Ratio is being calculated but prior to the event for which the calculation of the Consolidated Leverage Ratio is made (the “Consolidated Leverage Calculation Date”), then the Consolidated Leverage Ratio shall be calculated giving *pro forma* effect to such Incurrence, repayment, repurchase or redemption of Indebtedness as if the same had occurred at the beginning of the applicable four-quarter period; *provided* that the Issuer may elect pursuant to an Officers’ Certificate delivered to the Trustee to treat all or any portion of the commitment under any Indebtedness as being Incurred at such time, in which case any subsequent Incurrence of Indebtedness under such commitment shall not be deemed, for purposes of this calculation, to be an Incurrence at such subsequent time.

For purposes of making the computation referred to above, Investments, acquisitions, dispositions, mergers, amalgamations, consolidations and discontinued operations (as determined in accordance with GAAP), in each case with respect to a business, a division or an operating unit of a business, as applicable, and any operational changes that the Issuer or any of its Restricted Subsidiaries has determined to make and/or made during the four-quarter reference period or subsequent to such reference period and on or prior to or simultaneously with the Consolidated Leverage Calculation Date shall be calculated on a *pro forma* basis assuming that all such Investments, acquisitions, dispositions, mergers, amalgamations, consolidations, discontinued operations and other operational changes (and the change of any associated

Indebtedness and the change in EBITDA resulting therefrom) had occurred on the first day of the four-quarter reference period. If since the beginning of such period any Person that subsequently became a Restricted Subsidiary or was merged with or into the Issuer or any Restricted Subsidiary since the beginning of such period shall have made any Investment, acquisition, disposition, merger, consolidation, amalgamation, discontinued operation or operational change, in each case with respect to a business, a division or an operating unit of a business, as applicable, that would have required adjustment pursuant to this definition, then the Consolidated Leverage Ratio shall be calculated giving *pro forma* effect thereto for such period as if such Investment, acquisition, disposition, merger, amalgamation, consolidation, discontinued operation or operational change had occurred at the beginning of the applicable four-quarter period.

For purposes of this definition, whenever *pro forma* effect is to be given to any event, the *pro forma* calculations shall be made in good faith by a responsible financial or accounting officer of the Issuer. Any such *pro forma* calculation may include adjustments appropriate, in the reasonable good faith determination of the Issuer as set forth in an Officers' Certificate, to reflect operating expense reductions and other operating improvements or synergies reasonably expected to result from the applicable event; provided that any such operating expense reductions, operating improvements or synergies shall be approved by the Audit Committee of the Board of Directors of the Issuer if in excess of \$5,000,000.

For purposes of this definition, any amount in a currency other than U.S. Dollars will be converted to U.S. Dollars based on the average exchange rate for such currency for the most recent twelve month period immediately prior to the date of determination in a manner consistent with that used in calculating EBITDA for the applicable period.

"Consolidated Net Income" means, with respect to any Person for any period, the aggregate of the Net Income of such Person and its Restricted Subsidiaries for such period, on a consolidated basis; *provided, however*, that:

(1) any net after-tax extraordinary, non-recurring or unusual gains or losses (less all fees and expenses relating thereto) or expenses or charges, any non-recurring milestone or other fixed payments based on the occurrence (or non-occurrence) of an event under any license agreement, collaboration agreement, strategic alliance or similar arrangement received by, or paid by, such Person or such Restricted Subsidiaries, any severance expenses, relocation expenses, curtailments or modifications to pension and post-retirement employee benefit plans, any expenses related to any reconstruction, decommissioning, recommissioning or reconfiguration of fixed assets for alternate uses and fees, expenses or charges relating to facilities closing costs, acquisition integration costs, facilities opening costs, project start-up costs, business optimization costs, signing, retention or completion bonuses, expenses or charges related to any issuance of Equity Interests, Investment, acquisition, disposition, recapitalization or issuance, repayment, refinancing, amendment or modification of Indebtedness shall be excluded;

(2) effects of purchase accounting adjustments (including the effects of such adjustments pushed down to such Person and such Subsidiaries) in amounts required or permitted by GAAP, resulting from the application of purchase accounting in relation to any consummated acquisition or the amortization or write-off of any amounts thereof, net of taxes, shall be excluded;

- (3) the Net Income for such period shall not include the cumulative effect of a change in accounting principles during such period;
- (4) any (i) net after-tax income or loss from disposed, abandoned, transferred, closed or discontinued operations and any net after-tax gains or losses on disposal of disposed, abandoned, transferred, closed or discontinued operations and (ii) one-time charges associated with the deconsolidation of a Subsidiary shall be excluded;
- (5) any net after-tax gains or losses (less all fees and expenses or charges relating thereto) attributable to business dispositions or asset dispositions other than in the ordinary course of business (as determined in good faith by the Issuer) shall be excluded;
- (6) any net after-tax gains or losses (less all fees and expenses or charges relating thereto) attributable to the early extinguishment of indebtedness, Hedging Obligations or other derivative instruments shall be excluded;
- (7) the Net Income for such period of any Person that is not a Subsidiary of such Person, or is an Unrestricted Subsidiary, or that is accounted for by the equity method of accounting, shall be included only to the extent of the amount of dividends or distributions or other payments paid in cash (or to the extent converted into cash) to the referent Person or a Restricted Subsidiary thereof in respect of such period;
- (8) solely for the purpose of determining the amount available for Restricted Payments under clause (1) of the definition of “Cumulative Credit”, the Net Income for such period of any Restricted Subsidiary (other than any Guarantor) shall be excluded to the extent that the declaration or payment of dividends or similar distributions by such Restricted Subsidiary of its Net Income is not at the date of determination permitted without any prior governmental approval (which has not been obtained) or, directly or indirectly, by the operation of the terms of its charter or any agreement, instrument, judgment, decree, order, statute, rule or governmental regulation applicable to that Restricted Subsidiary or its stockholders or equityholders, unless such restrictions with respect to the payment of dividends or similar distributions have been legally waived; *provided* that the Consolidated Net Income of such Person shall be increased by the amount of dividends or other distributions or other payments actually paid in cash (or converted into cash) by any such Restricted Subsidiary to such Person, to the extent not already included therein;
- (9) any impairment charges or asset write-offs, in each case pursuant to GAAP, and the amortization of intangibles arising pursuant to GAAP shall be excluded;
- (10) any non-cash expense realized or resulting from stock option plans, employee benefit plans or post-employment benefit plans, or grants or sales of stock, stock appreciation or similar rights, stock options, restricted stock, preferred stock or other rights shall be excluded;

(11) any (a) one-time non-cash compensation charges, (b) costs and expenses after the Issue Date related to employment of terminated employees or (c) costs or expenses realized in connection with or resulting from stock appreciation or similar rights, stock options or other rights existing on the Issue Date of officers, directors and employees, in each case of such Person or any of its Restricted Subsidiaries, shall be excluded;

(12) accruals and reserves that are established or adjusted within 12 months after the Issue Date and that are so required to be established or adjusted in accordance with GAAP or as a result of adoption or modification of accounting policies shall be excluded;

(13) solely for purposes of calculating EBITDA, (a) the Net Income of any Person and its Restricted Subsidiaries shall be calculated without deducting the income attributable to, or adding the losses attributable to, the minority equity interests of third parties in any Restricted Subsidiary that is not a Wholly Owned Restricted Subsidiary except to the extent of dividends declared or paid in respect of such period or any prior period on the shares of Capital Stock of such Restricted Subsidiary held by such third parties and (b) any ordinary course dividend, distribution or other payment paid in cash and received from any Person in excess of amounts included in clause (7) above shall be included;

(14) (a)(i) the non-cash portion of "straight-line" rent expense shall be excluded and (ii) the cash portion of "straight-line" rent expense that exceeds the amount expensed in respect of such rent expense shall be included and (b) non-cash gains, losses, income and expenses resulting from fair value accounting required by the applicable standard under GAAP and related interpretations shall be excluded;

(15) any currency translation gains and losses related to currency remeasurements of Indebtedness, and any net loss or gain resulting from hedging transactions for currency exchange risk, shall be excluded;

(16) solely for the purpose of calculating Restricted Payments, the difference, if positive, of the Consolidated Taxes of the Issuer calculated in accordance with GAAP and the actual Consolidated Taxes paid in cash by the Issuer during any Reference Period shall be included; and

(17) to the extent covered by insurance and actually reimbursed, or, so long as such Person has made a determination that there exists reasonable evidence that such amount will in fact be reimbursed by the insurer and only to the extent that such amount is (a) not denied by the applicable carrier in writing within 180 days and (b) in fact reimbursed within 365 days of the date of such evidence (with a deduction for any amount so added back to the extent not so reimbursed within 365 days), such loss or expense amounts as are so reimbursed, or reimbursable, by insurance providers in respect of liability or casualty events or business interruption shall be excluded.

Notwithstanding the foregoing, for the purpose of Section 4.04 only, there shall be excluded from Consolidated Net Income any dividends, repayments of loans or advances or other transfers of assets from Unrestricted Subsidiaries of the Issuer or a Restricted Subsidiary of the Issuer to the extent such dividends, repayments or transfers increase the amount of Restricted Payments permitted under clauses (5) and (6) of the definition of “Cumulative Credit”.

“Consolidated Non-cash Charges” means, with respect to any Person for any period, the aggregate depreciation, amortization and other non-cash expenses of such Person and its Restricted Subsidiaries reducing Consolidated Net Income of such Person for such period on a consolidated basis and otherwise determined in accordance with GAAP, but excluding any such charge that consists of or requires an accrual of, or cash reserve for, anticipated cash charges for any future period.

“Consolidated Taxes” means, with respect to any Person for any period, the provision for taxes based on income, profits or capital, including state, franchise, property and similar taxes and foreign withholding taxes (including penalties and interest related to such taxes or arising from tax examinations).

“Contingent Obligations” means, with respect to any Person, any obligation of such Person guaranteeing any leases, dividends or other obligations that do not constitute Indebtedness (“primary obligations”) of any other Person (the “primary obligor”) in any manner, whether directly or indirectly, including any obligation of such Person, whether or not contingent:

(1) to purchase any such primary obligation or any property constituting direct or indirect security therefor;

(2) to advance or supply funds:

(a) for the purchase or payment of any such primary obligation; or

(b) to maintain working capital or equity capital of the primary obligor or otherwise to maintain the net worth or solvency of the primary obligor; or

(3) to purchase property, securities or services primarily for the purpose of assuring the owner of any such primary obligation of the ability of the primary obligor to make payment of such primary obligation against loss in respect thereof.

“Contribution Indebtedness” means Indebtedness of the Issuer or any Guarantor and Preferred Stock of any Guarantor in an aggregate principal amount not greater than the aggregate amount of cash contributions (other than Excluded Contributions) made to the capital of the Issuer or such Guarantor after the Issue Date; *provided* that:

(1) such cash contributions have not been used to make a Restricted Payment, and

(2) such Contribution Indebtedness (a) is Incurred within 180 days after the making of such cash contributions and (b) is so designated as Contribution Indebtedness pursuant to an Officers' Certificate on the Incurrence date thereof.

"Controlled Foreign Corporation" means a corporation that is a "controlled foreign corporation" within the meaning of Section 957 of the Code.

"Convertible Notes" means the Issuer's outstanding 4.50% Convertible Senior Notes due 2020.

"Corporate Trust Office" means the address of the Trustee specified in Section 12.01 or such other address as to which the Trustee may give notice to the Holders and the Issuer.

"Credit Agreement" means (i) if designated by the Issuer to be included in the definition of "Credit Agreement", any revolving credit, line of credit or similar agreement, as amended, restated, supplemented, waived, replaced (whether or not upon termination, and whether with the original lenders or otherwise), restructured, repaid, refunded, refinanced or otherwise modified from time to time, including any agreement or instrument extending the maturity thereof, refinancing, replacing or otherwise restructuring all or any portion of the Indebtedness under such agreement or instrument or any successor or replacement agreement or agreements or instrument or instruments or increasing the amount loaned or issued thereunder or altering the maturity thereof and (ii) whether or not the agreements or instruments referred to in clause (i) remain outstanding, and if designated by the Issuer to be included in the definition of "Credit Agreement", one or more (A) debt facilities or commercial paper facilities, providing for revolving credit loans, term loans, receivables financing (including through the sale of receivables to lenders or to special purpose entities formed to borrow from lenders against such receivables) or letters of credit, or (B) debt securities, indentures or other forms of debt financing (including convertible or exchangeable debt instruments or bank guarantees or bankers' acceptances), in each case, with the same or different borrowers or issuers and, in each case, as amended, supplemented, modified, extended, restructured, renewed, refinanced, restated, replaced or refunded in whole or in part from time to time.

"Credit Agreement Documents" means any Credit Agreement, any notes issued pursuant thereto and the guarantees thereof, and the collateral documents relating thereto, as amended, supplemented, restated, renewed, refunded, replaced, restructured, repaid, refinanced or otherwise modified from time to time.

"Cumulative Credit" means the sum of (without duplication):

(1) 50% of the Consolidated Net Income for the period (taken as one accounting period, the "Reference Period") from January 1, 2016 to the end of the Issuer's most recently ended fiscal quarter for which internal financial statements are available at the time of such Restricted Payments (or, in the case such Consolidated Net Income for such Reference Period is a deficit, minus 100% of such deficit), plus

(2) 100% of the aggregate net proceeds, including cash and the Fair Market Value (as determined in good faith by the Issuer) of property other than cash,

received by the Issuer after January 1, 2016 from the issue or sale of Equity Interests of the Issuer (excluding Refunding Capital Stock, Designated Preferred Stock, Excluded Contributions, Disqualified Stock and the Cash Contribution Amount), including Equity Interests issued upon conversion of Indebtedness or Disqualified Stock or upon exercise of warrants or options (other than an issuance or sale to a Restricted Subsidiary of the Issuer or to an employee stock ownership plan or trust established by the Issuer or any of its Subsidiaries), plus

(3) 100% of the aggregate amount of contributions to the capital of the Issuer received in cash and the Fair Market Value (as determined in good faith by the Issuer) of property other than cash after the Issue Date (other than Excluded Contributions, Refunding Capital Stock, Designated Preferred Stock, Disqualified Stock and the Cash Contribution Amount), plus

(4) the principal amount of any Indebtedness, or the liquidation preference or maximum fixed repurchase price, as the case may be, of any Disqualified Stock of the Issuer or any Restricted Subsidiary thereof issued after the Issue Date (other than Indebtedness or Disqualified Stock issued to a Restricted Subsidiary) that has been converted into or exchanged for Equity Interests in the Issuer (other than Disqualified Stock) or any direct or indirect parent of the Issuer (provided in the case of any such parent, such Indebtedness or Disqualified Stock is retired or extinguished), plus

(5) 100% of the aggregate amount received by the Issuer or any Restricted Subsidiary in cash and the Fair Market Value (as determined in good faith by the Issuer) of property other than cash received by the Issuer or any Restricted Subsidiary from:

(A) the sale or other disposition (other than to the Issuer or a Restricted Subsidiary of the Issuer) of Restricted Investments made by the Issuer and its Restricted Subsidiaries and from repurchases and redemptions of such Restricted Investments from the Issuer and its Restricted Subsidiaries by any Person (other than the Issuer or any of its Restricted Subsidiaries) and from repayments of loans or advances that constituted Restricted Investments (other than in each case to the extent that the Restricted Investment was made pursuant to clause (vii) or (x) of Section 4.04(b)),

(B) the sale (other than to the Issuer or a Restricted Subsidiary of the Issuer) of the Capital Stock of an Unrestricted Subsidiary, or

(C) a distribution or dividend from an Unrestricted Subsidiary, plus

(6) in the event any Unrestricted Subsidiary of the Issuer has been redesignated as a Restricted Subsidiary or has been merged, consolidated or amalgamated with or into, or transfers or conveys its assets to, or is liquidated into, the Issuer or a Restricted Subsidiary of the Issuer, the Fair Market Value (as determined in good faith by the Issuer) of the Investment of the Issuer or a Restricted Subsidiary in such Unrestricted Subsidiary at the time of such redesignation, combination or transfer (or of the assets transferred or conveyed, as applicable), after taking into account any Indebtedness

associated with the Unrestricted Subsidiary so designated or combined or any Indebtedness associated with the assets so transferred or conveyed (other than in each case to the extent that the designation of such Subsidiary as an Unrestricted Subsidiary was made pursuant to clause (vii) or (x) of Section 4.04(b) or constituted a Permitted Investment).

“Default” means any event that is, or after notice or passage of time or both would be, an Event of Default.

“Designated Non-cash Consideration” means the Fair Market Value (as determined in good faith by the Issuer) of non-cash consideration received by the Issuer or one of its Restricted Subsidiaries in connection with an Asset Sale that is so designated as Designated Non-cash Consideration pursuant to an Officers’ Certificate, setting forth the basis of such valuation, less the amount of Cash Equivalents received in connection with a subsequent sale of such Designated Non-cash Consideration.

“Designated Preferred Stock” means Preferred Stock of the Issuer or any direct or indirect parent of the Issuer, as applicable (other than Disqualified Stock), that is issued for cash (other than to the Issuer or any of its Subsidiaries or an employee stock ownership plan or trust established by the Issuer or any of its Subsidiaries) and is so designated as Designated Preferred Stock, pursuant to an Officers’ Certificate, on the issuance date thereof.

“Disqualified Stock” means, with respect to any Person, any Capital Stock of such Person that, by its terms (or by the terms of any security into which it is convertible or for which it is redeemable or exchangeable), or upon the happening of any event:

(1) matures or is mandatorily redeemable, pursuant to a sinking fund obligation or otherwise (other than as a result of a change of control or asset sale; *provided* that the relevant asset sale or change of control provisions, taken as a whole, are no more favorable in any material respect to holders of such Capital Stock than the asset sale and change of control provisions applicable to the Securities and any purchase requirement triggered thereby may not become operative until compliance with the asset sale and change of control provisions applicable to the Securities (including the purchase of any Securities tendered pursuant thereto)),

(2) is convertible or exchangeable for Indebtedness or Disqualified Stock of such Person, or

(3) is redeemable at the option of the holder thereof, in whole or in part (other than solely as a result of a change of control or asset sale),

in each case prior to 91 days after the earlier of the Stated Maturity of the Securities or the date the Securities are no longer outstanding; *provided, however*, that only the portion of Capital Stock that so matures or is mandatorily redeemable, is so convertible or exchangeable or is so redeemable at the option of the holder thereof prior to such date shall be deemed to be Disqualified Stock; *provided, further, however*, that if such Capital Stock is issued to any employee or to any plan for the benefit of employees of the Issuer or its Subsidiaries or by any such plan to such employees, such Capital Stock shall not constitute Disqualified Stock solely because it may be required to be repurchased by the Issuer in order to satisfy applicable statutory

or regulatory obligations or as a result of such employee's termination, death or disability; *provided, further*, that any class of Capital Stock of such Person that by its terms authorizes such Person to satisfy its obligations thereunder by delivery of Capital Stock that is not Disqualified Stock shall not be deemed to be Disqualified Stock.

"Domestic Subsidiary" means any Subsidiary of the Issuer incorporated or organized under the laws of the United States of America or any political subdivision of the United States of America.

"DTC" means The Depository Trust Company, its nominees and their respective successors.

"EBITDA" means, with respect to any Person for any period, the Consolidated Net Income of such Person for such period plus, without duplication, to the extent the same was deducted in calculating Consolidated Net Income:

(1) Consolidated Taxes; *plus*

(2) Consolidated Interest Expense plus all cash dividend payments (excluding items eliminated in consolidation) on a series of Preferred Stock or Disqualified Stock of such Person and its Subsidiaries that are Restricted Subsidiaries; *plus*

(3) Consolidated Non-cash Charges; *plus*

(4) any expenses or charges related to any issuance of Equity Interests, Investment, acquisition, disposition, recapitalization or the incurrence or repayment of Indebtedness permitted to be incurred by this Indenture (including a refinancing thereof) (whether or not successful), including (i) such fees, expenses or charges related to the offering of the Securities and the Bank Indebtedness, (ii) any amendment or other modification of the Securities or other Indebtedness and (iii) commissions, discounts, yield and other fees and charges (including any interest expense) related to any Qualified Receivables Financing; *plus*

(5) business optimization expenses and other restructuring charges, reserves or expenses (which, for the avoidance of doubt, shall include the effect of inventory optimization programs, facility closures, facility consolidations, retention, systems establishment costs, contract termination costs, future lease commitments and excess pension charges); *plus*

(6) the amount of loss on sale of receivables and related assets to a Receivables Subsidiary in connection with a Qualified Receivables Financing; *plus*

(7) any costs or expenses incurred pursuant to any management equity plan or stock option plan or any other management or employee benefit plan or agreement or any stock subscription or shareholder agreement, to the extent that such costs or expenses are funded with cash proceeds contributed to the capital of the Issuer or a Guarantor or net cash proceeds of an issuance of Equity Interests of the Issuer (other than Disqualified Stock) solely to the extent that such net cash proceeds are excluded from the calculation of the Cumulative Credit; *plus*

(8) cash receipts resulting from recurring stock option exercises;

less, without duplication,

(9) non-cash items increasing Consolidated Net Income for such period (excluding the recognition of deferred revenue or any items that represent the reversal of any accrual of, or cash reserve for, anticipated cash charges that reduced EBITDA in any prior period and any items for which cash was received in a prior period).

“Equity Interests” means Capital Stock and all warrants, options or other rights to acquire Capital Stock (but excluding any debt security that is convertible into, or exchangeable for, Capital Stock).

“Exchange Act” means the United States Securities Exchange Act of 1934, as amended, and the rules and regulations of the SEC promulgated thereunder.

“Excluded Assets” means (i) any license, contract, permit or agreement of the Issuer or any of the Guarantors, if and only for so long as the grant of a security interest under the Security Documents would result in a breach or default under, or abandonment, invalidation or unenforceability of, that license, contract, permit or agreement, (ii) any fee or leasehold interest in real property (excluding fixtures) so long as no other Person is granted a Lien in respect of such fee or leasehold interest except for Permitted Liens set forth in clauses (1), (2), (3), (4), (5), (8), (9), (10), (11), (12), (13), (14), (15), (16), (17), (18), (19), (21), (22), (23), (24), (26), (27), (28), (30) and (31) and (as they relate to such clauses) clauses (20) and (32) of the definition of “Permitted Liens”, (iii) any asset or property to the extent that the grant of a security interest in such asset or property is prohibited by any applicable law or requires a consent not obtained of any Governmental Authority pursuant to applicable law, (iv) any assets or property as to which the Issuer or the Collateral Agent (at the direction of the Holders of a majority in principal amount of the Securities then outstanding) reasonably determines in good faith that the costs of obtaining such a security interest are excessive in relation to the value of the security to be afforded thereby, (v) any Equity Interests of any Unrestricted Subsidiaries, (vi) any Equity Interests of (a) any Subsidiary that is not a Wholly Owned Subsidiary or (b) any minority-owned Investment (in each case, so long as no other Person is granted a Lien in respect thereof), (vii) 35% of the total outstanding voting Equity Interests of (x) any First Tier Controlled Foreign Corporation and (y) any Domestic Subsidiary that owns only the Equity Interests of one or more Controlled Foreign Corporations, (viii) any Equity Interests of any Subsidiary owned by a First Tier Controlled Foreign Corporation or by a lower-tier Foreign Subsidiary, (ix) any payroll accounts, payroll withholding tax accounts, pension and pension reserve accounts and employee benefit accounts to the extent funded or maintained in accordance with prudent business practice or as required by law and (x) certain other exceptions described in the Security Documents.

“Excluded Contributions” means the Cash Equivalents or other assets (valued at their Fair Market Value as determined in good faith by senior management or the Board of Directors of the Issuer) received by the Issuer after the Issue Date from:

(1) contributions to its common equity capital, and

(2) the sale (other than to a Subsidiary of the Issuer or to any Subsidiary management equity plan or stock option plan or any other management or employee benefit plan or agreement) of Capital Stock (other than Disqualified Stock and Designated Preferred Stock) of the Issuer,

in each case designated as Excluded Contributions pursuant to an Officers' Certificate on or after the date such capital contributions are made or the date such Capital Stock is sold, as the case may be.

"Fair Market Value" means, with respect to any asset or property, the price that could be negotiated in an arm's-length transaction, for cash, between a willing seller and a willing and able buyer, neither of whom is under undue pressure or compulsion to complete the transaction.

"Federal Deposit Insurance Corporation" means the Federal Deposit Insurance Corporation or any successor thereto.

"Financial Officer" of any Person shall mean the Chief Financial Officer, principal accounting officer, Treasurer, Assistant Treasurer or Controller of such Person.

"First Amortization Date" means, with respect to any security, the date specified in such security as the fixed date on which the first payment of principal of such security is due and payable.

"First Lien Agent" means the Representative(s) of the holders of the First Priority Lien Obligations to the extent designated as such in an Intercreditor Agreement.

"First Priority Lien Obligations" means (i) all Secured Bank Indebtedness, (ii) all other Obligations (not constituting Indebtedness) of the Issuer and its Restricted Subsidiaries under the agreements governing Secured Bank Indebtedness and (iii) all other Obligations of the Issuer or any of its Restricted Subsidiaries in respect of Hedging Obligations or Obligations in respect of cash management services in each case owing to a Person that is a holder of Indebtedness described in clause (i) or Obligations described in clause (ii) or an Affiliate or Representative of such holder at the time of entry into such Hedging Obligations or Obligations in respect of cash management services, to the extent that, in the case of each of clause (i), (ii) or (iii), such Indebtedness or other Obligations are secured, in whole or in part, by the ABL Collateral.

"First Tier Controlled Foreign Corporation" means any First Tier Foreign Subsidiary that is a "controlled foreign corporation" within the meaning of Section 957 of the Code.

"First Tier Foreign Subsidiary" means any Foreign Subsidiary the Equity Interests of which are owned directly by the Issuer or indirectly by the Issuer through one or more Domestic Subsidiaries or disregarded entities for U.S. federal income tax purposes.

“Foreign Subsidiary” means any Subsidiary of the Issuer that is not a Domestic Subsidiary.

“GAAP” means generally accepted accounting principles in the United States set forth in the opinions and pronouncements of the Accounting Principles Board of the American Institute of Certified Public Accountants and statements and pronouncements of the Financial Accounting Standards Board or in such other statements by such other entity as have been approved by a significant segment of the accounting profession.

“Governmental Authority” means the government of the United States or any other nation, or of any political subdivision thereof, whether state or local, and any agency, authority, instrumentality, regulatory body, court, central bank or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of or pertaining to government (including any supra-national bodies such as the European Union or the European Central Bank).

“guarantee” means a guarantee (other than by endorsement of negotiable instruments for collection in the ordinary course of business), direct or indirect, in any manner (including letters of credit and reimbursement agreements in respect thereof), of all or any part of any Indebtedness or other obligations.

“Guarantee” means any guarantee of the obligations of the Issuer under this Indenture and the Securities by any Person in accordance with the provisions of this Indenture.

“Guarantor” means any Person that Incurs a Guarantee pursuant to Section 4.10; provided, however, that no Foreign Subsidiary shall be required to become a Guarantor; and, provided further that upon the release or discharge of such Person from its Guarantee in accordance with this Indenture, such Person ceases to be a Guarantor.

“Hedging Obligations” means, with respect to any Person, the obligations of such Person under:

- (1) currency exchange, interest rate or commodity swap agreements, currency exchange, interest rate or commodity cap agreements and currency exchange, interest rate or commodity collar agreements; and
- (2) other agreements or arrangements designed to protect such Person against fluctuations in currency exchange, interest rates or commodity prices.

“Holder” means the Person in whose name a Security is registered on the Registrar’s books.

“Incur” means issue, assume, guarantee, incur or otherwise become liable for; *provided, however*, that any Indebtedness or Capital Stock of a Person existing at the time such Person becomes a Subsidiary (whether by merger, amalgamation, consolidation, acquisition or otherwise) shall be deemed to be Incurred by such Person at the time it becomes a Subsidiary. “Incurrence” has a correlative meaning.

“Indebtedness” means, with respect to any Person:

(1) the principal and premium (if any) of any indebtedness of such Person, whether or not contingent, (a) in respect of borrowed money, (b) evidenced by bonds, notes, debentures or similar instruments or letters of credit or bankers’ acceptances (or, without duplication, reimbursement agreements in respect thereof), (c) representing the deferred and unpaid purchase price of any property (except (i) any such balance that constitutes a trade payable or similar obligation to a trade creditor Incurred in the ordinary course of business and (ii) any liabilities accrued in the ordinary course of business), which purchase price is due more than six months after the date of placing the property in service or taking delivery and title thereto, (d) in respect of Capitalized Lease Obligations, or (e) representing any Hedging Obligations, if and to the extent that any of the foregoing indebtedness (other than letters of credit and Hedging Obligations) would appear as a liability on a balance sheet (excluding the footnotes thereto) of such Person prepared in accordance with GAAP;

(2) to the extent not otherwise included, any obligation of such Person to be liable for, or to pay, as obligor, guarantor or otherwise, on the Indebtedness of another Person (other than by endorsement of negotiable instruments for collection in the ordinary course of business); and

(3) to the extent not otherwise included, Indebtedness of another Person secured by a Lien on any asset owned by such Person (whether or not such Indebtedness is assumed by such Person); *provided, however*, that the amount of such Indebtedness will be the lesser of: (a) the Fair Market Value (as determined in good faith by the Issuer) of such asset at such date of determination; and (b) the amount of such Indebtedness of such other Person;

provided, however, that notwithstanding the foregoing, Indebtedness shall be deemed not to include: (1) Contingent Obligations incurred in the ordinary course of business and not in respect of borrowed money; (2) deferred or prepaid revenues; (3) purchase price holdbacks in respect of a portion of the purchase price of an asset to satisfy warranty or other unperformed obligations of the respective seller; (4) Obligations under or in respect of Qualified Receivables Financing; (5) any earn-out obligations, purchase price adjustments, deferred purchase money amounts, milestone and/or bonus payments (whether performance or time-based), and royalty, licensing, revenue and/or profit sharing arrangements, in each case, characterized as such and arising expressly out of purchase and sale contracts, development arrangements or licensing arrangements; or (6) deposits securing Sale/Leaseback Transactions.

Notwithstanding anything in this Indenture to the contrary, Indebtedness shall not include, and shall be calculated without giving effect to, the effects of Accounting Standards Codification section 815 and related interpretations to the extent such effects would otherwise increase or decrease an amount of Indebtedness for any purpose under this Indenture as a result of accounting for any embedded derivatives created by the terms of such Indebtedness; and any such amounts that would have constituted Indebtedness under this Indenture but for the application of this sentence shall not be deemed an Incurrence of Indebtedness under this Indenture.

“Indenture” means this Indenture as amended, restated or supplemented from time to time.

“Independent Financial Advisor” means an accounting, appraisal or investment banking firm or consultant, in each case of nationally recognized standing, that is, in the good faith determination of the Issuer, qualified to perform the task for which it has been engaged.

“Intellectual Property” means, with respect to any Person, all intellectual property and proprietary rights in any jurisdiction throughout the world, and all corresponding rights, presently or hereafter existing, including: (a) all inventions (whether or not patentable or reduced to practice), all improvements thereto, and all patents, patent applications, industrial designs, industrial design applications, and patent disclosures, together with all reissues, continuations, continuations-in-part, revisions, divisionals, extensions, and reexaminations in connection therewith; (b) all trademarks, trademark applications, tradenames, servicemarks, servicemark applications, trade dress, logos and designs, business names, company names, Internet domain names, and all other indicia of origin, all applications, registrations, and renewals in connection therewith, and all goodwill associated with any of the foregoing; (c) all copyrights and other works of authorship, mask works, database rights and moral rights, and all applications, registrations, and renewals in connection therewith; (d) all trade secrets, know-how, technologies, processes, techniques, protocols, methods, industrial models, designs, drawings, plans, specifications, research and development, and confidential information (including technical data, customer and supplier lists, pricing and cost information, and business and marketing plans and proposals); (e) all software (including source code, executable code, data, databases, and related documentation); (f) all rights of privacy and publicity, including rights to the use of names, likenesses, images, voices, signatures and biographical information of real persons; (g) licenses and commercial marketing rights; and (h) all copies and tangible embodiments or descriptions of any of the foregoing (in whatever form or medium).

“Intercreditor Agreement” means any intercreditor agreement, substantially in the form of Exhibit C attached hereto, among the holders of First Priority Lien Obligations or their Representative(s), the Trustee and/or the Collateral Agent, the Issuer and each Guarantor that may be party thereto from time to time, as it may be amended from time to time in accordance with this Indenture.

“Investment Grade Securities” means:

(1) securities issued or directly and fully guaranteed or insured by the U.S. government or any agency or instrumentality thereof (other than Cash Equivalents),

(2) securities that have a rating equal to or higher than “Baa3” (or equivalent) by Moody’s or “BBB-” (or equivalent) by S&P, or an equivalent rating by any other Rating Agency, but excluding any debt securities or loans or advances between and among the Issuer and its Subsidiaries,

(3) investments in any fund that invests exclusively in investments of the type described in clauses (1) and (2), which fund may also hold immaterial amounts of cash pending investment and/or distribution, and

(4) corresponding instruments in countries other than the United States customarily utilized for high quality investments and in each case with maturities not exceeding two years from the date of acquisition.

“Investments” means, with respect to any Person, all investments by such Person in other Persons (including Affiliates) in the form of loans (including guarantees), advances or capital contributions (excluding accounts receivable, trade credit and advances to customers and commission, travel and similar advances to officers, employees and consultants made in the ordinary course of business), purchases or other acquisitions for consideration of Indebtedness, Equity Interests or other securities issued by any other Person and investments that are required by GAAP to be classified on the balance sheet of the Issuer in the same manner as the other investments included in this definition to the extent such transactions involve the transfer of cash or other property. For purposes of the definition of “Unrestricted Subsidiary” and Section 4.04 (including Permitted Investments):

(1) “Investments” shall include the portion (proportionate to the Issuer’s equity interest in such Subsidiary) of the Fair Market Value (as determined in good faith by the Issuer) of the net assets of a Subsidiary of the Issuer at the time that such Subsidiary is designated an Unrestricted Subsidiary; *provided, however*, that upon a redesignation of such Subsidiary as a Restricted Subsidiary, the Issuer shall be deemed to continue to have a permanent “Investment” in an Unrestricted Subsidiary equal to an amount (if positive) equal to:

(a) the Issuer’s “Investment” in such Subsidiary at the time of such redesignation; less

(b) the portion (proportionate to the Issuer’s equity interest in such Subsidiary) of the Fair Market Value (as determined in good faith by the Issuer) of the net assets of such Subsidiary at the time of such redesignation; and

(2) any property transferred to or from an Unrestricted Subsidiary shall be valued at its Fair Market Value (as determined in good faith by the Issuer) at the time of such transfer, in each case as determined in good faith by the Board of Directors of the Issuer.

“IRS” means the U.S. Internal Revenue Service.

“Issue Date” means December 22, 2015.

“Issuer” has the meaning set forth in the preamble hereof but, for the avoidance of doubt, shall not include any of its Subsidiaries.

“Lien” means, with respect to any asset, any mortgage, lien, pledge, charge, security interest or encumbrance of any kind in respect of such asset, whether or not filed, recorded or otherwise perfected under applicable law (including any conditional sale or other title retention agreement, any lease in the nature thereof, any option or other agreement to sell or give a security interest in and any filing of or agreement to give any financing statement under the Uniform Commercial Code (or equivalent statutes) of any jurisdiction); *provided* that in no event shall an operating lease be deemed to constitute a Lien.

“Lockbox Account” means any Deposit Account maintained at a depository institution whose customer deposits are insured by the Federal Deposit Insurance Corporation (to the extent required by law), into which account are paid solely the Proceeds of Inventory and Accounts that constitute ABL Collateral. All capitalized terms used in this definition and not defined elsewhere herein have the meanings assigned to them in the Uniform Commercial Code.

“MM-398” means (a) the product candidate referred to as MM-398 (irinotecan liposome injection) (whether marketed under the name Onyvite or any other name) and (b) any and all product improvements, additional claims, line extensions, dosage changes and alternate delivery systems in respect thereof.

“MM-398 Excess US License Proceeds” means the aggregate cash proceeds in respect of any MM-398 Intellectual Property Licenses in excess of \$100,000,000 to the extent such proceeds constitute fixed cash payments not based on the occurrence (or non-occurrence) of any event (other than solely the passage of time) payable under such MM-398 Intellectual Property Licenses.

“MM-398 Intellectual Property Licenses” means the licensing, development or commercialization of all or any substantial portion of the Intellectual Property related to MM-398 for commercialization in the United States pursuant to any license, collaboration agreement, strategic alliance or similar arrangement.

“MM-398 Intellectual Property Sale” means the sale, conveyance, transfer or other disposition (whether in a single transaction or a series of related transactions), other than, for the avoidance of doubt, pursuant to MM-398 Intellectual Property Licenses, of all or any substantial portion of the Intellectual Property and other assets related to MM-398 for commercialization in the United States.

“Moody’s” means Moody’s Investors Service, Inc. or any successor to the rating agency business thereof.

“Net Income” means, with respect to any Person, the net income (loss) of such Person and its Subsidiaries, determined in accordance with GAAP and before any reduction in respect of Preferred Stock dividends.

“Net Proceeds” means the aggregate cash proceeds received by the Issuer or any of its Restricted Subsidiaries in respect of any Asset Sale (including any cash received in respect of or upon the sale or other disposition of any Designated Non-cash Consideration received in any Asset Sale and any cash payments received by way of deferred payment of principal pursuant to a note or installment receivable or otherwise, but only as and when received, but excluding the assumption by the acquiring Person of Indebtedness relating to the disposed assets or other consideration received in any other non-cash form), net of the direct costs relating to such Asset Sale and the sale or disposition of such Designated Non-cash Consideration (including legal, accounting and investment banking fees, and brokerage and sales commissions), and any relocation expenses Incurred as a result thereof, taxes paid or payable as a result thereof

(after taking into account any available tax credits or deductions and any tax sharing arrangements to the extent related thereto), amounts required to be applied to the repayment of principal, premium (if any) and interest on Indebtedness required (other than pursuant to Section 4.06(b)(i)) to be paid as a result of such transaction, and any deduction of appropriate amounts to be provided by the Issuer as a reserve in accordance with GAAP against any liabilities associated with the asset disposed of in such transaction and retained by the Issuer after such sale or other disposition thereof, including pension and other post-employment benefit liabilities and liabilities related to environmental matters or against any indemnification obligations associated with such transaction.

“Notes Collateral” means all property subject, or purported to be subject from time to time, to a Lien under any Security Documents. The Notes Collateral does not include the Excluded Assets.

“Obligations” means any principal, interest, penalties, fees, indemnifications, reimbursements (including reimbursement obligations with respect to letters of credit and bankers’ acceptances), damages and other liabilities payable under the documentation governing any Indebtedness; *provided* that Obligations with respect to the Securities shall not include fees or indemnifications in favor of the Trustee and the Collateral Agent.

“Officer” means the Chairman of the Board, the Chief Executive Officer, the Chief Financial Officer, the President, any Executive Vice President, any Senior Vice President, the Treasurer or the Secretary of the Issuer.

“Officers’ Certificate” means a certificate signed on behalf of the Issuer by two Officers of the Issuer, one of whom must be the principal executive officer, the principal financial officer, the treasurer or the principal accounting officer of the Issuer that meets the requirements set forth in this Indenture.

“Opinion of Counsel” means a written opinion from legal counsel who is acceptable to the Trustee. The counsel may be an employee of or counsel to the Issuer or the Trustee.

“Pari Passu Indebtedness” means:

- (1) with respect to the Issuer, the Securities and any Indebtedness that ranks pari passu in right of payment to the Securities; and
- (2) with respect to any Guarantor, its Guarantee and any Indebtedness that ranks pari passu in right of payment to such Guarantor’s Guarantee.

“Permitted Investments” means:

- (1) any Investment in the Issuer or any Restricted Subsidiary;
- (2) any Investment in Cash Equivalents or Investment Grade Securities;

(3) any Investment by the Issuer or any Restricted Subsidiary of the Issuer in a Person if as a result of such Investment (a) such Person becomes a Restricted Subsidiary of the Issuer or (b) such Person, in one transaction or a series of related transactions, is merged, consolidated or amalgamated with or into, or transfers or conveys all or substantially all of its assets to, or is liquidated into, the Issuer or a Restricted Subsidiary of the Issuer;

(4) any Investment in securities or other assets not constituting Cash Equivalents and received in connection with an Asset Sale made pursuant to the provisions of Section 4.06 or any other disposition of assets not constituting an Asset Sale;

(5) any Investment existing on, or made pursuant to binding commitments existing on, the Issue Date or an Investment consisting of any extension, modification or renewal of any Investment existing on the Issue Date; provided that the amount of any such Investment may be increased as required by the terms of such Investment as in existence on the Issue Date;

(6) advances to employees not in excess of \$1,000,000 outstanding at any one time in the aggregate;

(7) any Investment acquired by the Issuer or any of its Restricted Subsidiaries (a) in exchange for any other Investment or accounts receivable held by the Issuer or any such Restricted Subsidiary in connection with or as a result of a bankruptcy, workout, reorganization or recapitalization of the issuer of such other Investment or accounts receivable or (b) as a result of a foreclosure by the Issuer or any of its Restricted Subsidiaries with respect to any secured Investment or other transfer of title with respect to any secured Investment in default;

(8) Hedging Obligations permitted under Section 4.03(b)(x);

(9) any Investment by the Issuer or any of its Restricted Subsidiaries in a Similar Business having an aggregate Fair Market Value (as determined in good faith by the Issuer), taken together with all other Investments made pursuant to this clause (9) that are at that time outstanding, not to exceed \$5,000,000 (with the Fair Market Value of each Investment being measured at the time made and without giving effect to subsequent changes in value); *provided, however*, that if any Investment pursuant to this clause (9) is made in any Person that is not a Restricted Subsidiary of the Issuer at the date of the making of such Investment and such Person becomes a Restricted Subsidiary of the Issuer after such date, such Investment shall thereafter be deemed to have been made pursuant to clause (1) above and shall cease to have been made pursuant to this clause (9) for so long as such Person continues to be a Restricted Subsidiary;

(10) Investments by the Issuer or any of its Restricted Subsidiaries having an aggregate Fair Market Value, taken together with all other Investments made pursuant to this clause (10) that are at that time outstanding, not to exceed \$5,000,000 (with the Fair Market Value of each Investment being measured at the time made and without giving

effect to subsequent changes in value); *provided, however*, that if any Investment pursuant to this clause (10) is made in any Person that is not a Restricted Subsidiary at the date of the making of such Investment and such Person becomes a Restricted Subsidiary after such date, such Investment shall thereafter be deemed to have been made pursuant to clause (1) above and shall cease to have been made pursuant to this clause (10) for so long as such Person continues to be a Restricted Subsidiary;

(11) loans and advances to officers, directors and employees for business-related travel expenses, moving expenses and other similar expenses, in each case Incurred in the ordinary course of business or consistent with past practice or to fund such person's purchase of Equity Interests of the Issuer or any direct or indirect parent of the Issuer;

(12) Investments the payment for which consists of Equity Interests of the Issuer (other than Disqualified Stock) or any direct or indirect parent of the Issuer, as applicable; *provided, however*, that such Equity Interests will not increase the amount available for Restricted Payments under clause (3) of the definition of "Cumulative Credit";

(13) any transaction to the extent it constitutes an Investment that is permitted by and made in accordance with the provisions of Section 4.07(b) (except transactions described in clauses (ii), (iv) and (viii)(B) of such Section);

(14) Investments consisting of the licensing of Intellectual Property or collaboration agreements, strategic alliances or similar arrangements in respect of Intellectual Property, in each case, for the development or commercialization of Intellectual Property that, at the time of such license, collaboration agreement, strategic alliance or similar arrangement, does not, in the Issuer's judgment, materially and adversely affect the Issuer's business or condition (financial or otherwise) (for the avoidance of doubt, any such license, collaboration, strategic alliance or similar arrangement shall not result in the Issuer or any Restricted Subsidiary of the Issuer no longer owning such Intellectual Property);

(15) guarantees issued in accordance with Sections 4.03 and 4.10, including any guarantee or other obligation issued or incurred under any Credit Agreement in connection with any letter of credit issued for the account of the Issuer or any of its Subsidiaries (including with respect to the issuance of, or payments in respect of drawings under, such letters of credit);

(16) Investments consisting of or to finance purchases and acquisitions of inventory, supplies, materials, services or equipment or purchases of contract rights or licenses or leases of Intellectual Property, in each case in the ordinary course of business;

(17) any Investment in a Receivables Subsidiary or any Investment by a Receivables Subsidiary in any other Person in connection with a Qualified Receivables Financing, including Investments of funds held in accounts permitted or required by the arrangements governing such Qualified Receivables Financing or any related Indebtedness;

(18) Investments of a Restricted Subsidiary of the Issuer acquired after the Issue Date or of an entity merged into, amalgamated with, or consolidated with a Restricted Subsidiary of the Issuer in a transaction that is not prohibited by Section 5.01 after the Issue Date to the extent that such Investments were not made in contemplation of such acquisition, merger, amalgamation or consolidation and were in existence on the date of such acquisition, merger, amalgamation or consolidation;

(19) any Investment in an entity or purchase of a business or assets in each case owned (or previously owned) by a customer of the Issuer or a Restricted Subsidiary as a condition or in connection with such customer (or any member of such customer's group) contracting with a Restricted Subsidiary, in each case in the ordinary course of business;

(20) any Investment in an entity that is not a Restricted Subsidiary to which the Issuer or a Restricted Subsidiary sells accounts receivable pursuant to a Receivables Financing;

(21) any Investment in any Restricted Subsidiary of the Issuer or any joint venture in connection with intercompany cash management arrangements or related activities arising in the ordinary course of business;

(22) any Investment in connection with a Sale/Leaseback Transaction not prohibited by this Indenture; and

(23) Investments in any joint venture of the Issuer or any of its Restricted Subsidiaries formed to develop assets of the Issuer for indications not related primarily to oncology not to exceed \$25,000,000 at any one time.

"Permitted Liens" means, with respect to any Person:

(1) pledges or deposits by such Person under workmen's compensation laws, unemployment insurance laws or similar legislation, or good faith deposits in connection with bids, tenders, contracts (other than for the payment of Indebtedness) or leases to which such Person is a party, or deposits to secure public or statutory obligations of such Person or deposits of cash or U.S. government bonds to secure surety or appeal bonds to which such Person is a party, or deposits as security for contested taxes or import duties or for the payment of rent, in each case Incurred in the ordinary course of business;

(2) Liens imposed by law, such as carriers', warehousemen's and mechanics' Liens, in each case for sums not overdue for more than 30 days or being contested in good faith by appropriate proceedings or other Liens arising out of judgments or awards against such Person with respect to which such Person shall then be proceeding with an appeal or other proceedings for review;

(3) Liens for taxes, assessments or other governmental charges not yet due or payable or subject to penalties for nonpayment or not then delinquent for more than 90 days or that are being contested in good faith by appropriate proceedings if adequate reserves with respect thereto are maintained on the books of such Person in accordance with GAAP;

(4) Liens in favor of issuers of performance and surety bonds or bid bonds or with respect to other regulatory requirements or letters of credit issued pursuant to the request of and for the account of such Person in the ordinary course of its business (including any Liens securing Indebtedness permitted under Section 4.03(b)(v) and Section 4.03(b)(xi));

(5) survey exceptions, encumbrances, easements or reservations of, or rights of others for, licenses, rights-of-way, sewers, electric lines, telegraph and telephone lines and other similar purposes, or zoning or other restrictions as to the use of real properties or Liens incidental to the conduct of the business of such Person or to the ownership of its properties that were not Incurred in connection with Indebtedness and that do not in the aggregate materially adversely affect the value of said properties or materially impair their use in the operation of the business of such Person;

(6) (A) Liens with respect to ABL Collateral securing an aggregate principal amount of First Priority Lien Obligations not to exceed the aggregate amount of Indebtedness permitted to be Incurred pursuant to Section 4.03(b)(i) and (B) Liens securing Indebtedness permitted to be Incurred pursuant to Section 4.03(b)(iv) and Section 4.03(b)(xxi) (provided that in the case of Section 4.03(b)(xxi) such Lien applies solely to acquired property or assets of the acquired entity, as the case may be);

(7) (A) Liens existing on the Issue Date and (B) Liens securing the Securities or the Guarantees, including Liens arising under or relating to the Security Documents;

(8) Liens on assets, property or shares of stock of a Person at the time such Person becomes a Subsidiary; *provided, however*, that such Liens are not created or Incurred in connection with, or in contemplation of, such other Person becoming such a Subsidiary; *provided, further, however*, that such Liens may not extend to any other property owned by the Issuer or any Restricted Subsidiary of the Issuer;

(9) Liens on assets or property at the time the Issuer or a Restricted Subsidiary of the Issuer acquired the assets or property, including any acquisition by means of a merger, amalgamation or consolidation with or into the Issuer or any Restricted Subsidiary of the Issuer; *provided, however*, that such Liens are not created or Incurred in connection with, or in contemplation of, such acquisition; *provided, further, however*, that the Liens may not extend to any other property owned by the Issuer or any Restricted Subsidiary of the Issuer;

(10) Liens securing Indebtedness or other obligations of a Restricted Subsidiary owing to the Issuer permitted to be Incurred in accordance with Section 4.03;

(11) Liens securing Hedging Obligations not incurred in violation of this Indenture; *provided* that with respect to Hedging Obligations relating to Indebtedness, such Lien extends only to the property securing such Indebtedness;

(12) Liens on specific items of inventory or other goods and proceeds of any Person securing such Person's obligations in respect of bankers' acceptances issued or created for the account of such Person to facilitate the purchase, shipment or storage of such inventory or other goods;

(13) leases and subleases of real property that do not materially interfere with the ordinary conduct of the business of the Issuer or any of its Restricted Subsidiaries;

(14) Liens arising from Uniform Commercial Code financing statement filings regarding operating leases entered into by the Issuer and its Restricted Subsidiaries in the ordinary course of business;

(15) Liens in favor of the Issuer or any Guarantor;

(16) Liens on accounts receivable and related assets of the type specified in the definition of "Receivables Financing" Incurred in connection with a Qualified Receivables Financing;

(17) deposits made in the ordinary course of business to secure liability to insurance carriers;

(18) Liens on the Equity Interests of Unrestricted Subsidiaries;

(19) all rights granted under any license, collaboration agreement, strategic alliance or similar arrangement providing for the licensing of Intellectual Property or the development or commercialization of Intellectual Property, *provided*, that, in the case of an agreement entered into on or after the Issue Date, such license, collaboration agreement, strategic alliance or similar arrangement, taken as a whole, in the judgment of the Issuer when executed, does not materially and adversely affect the Issuer's business or condition (financial or otherwise) (for the avoidance of doubt, any such license, collaboration, strategic alliance or similar arrangement shall not result in the Issuer or any Restricted Subsidiary of the Issuer no longer owning such Intellectual Property);

(20) Liens to secure any refinancing, refunding, extension, renewal or replacement (or successive refinancings, refundings, extensions, renewals or replacements) as a whole, or in part, of any Indebtedness secured by any Lien referred to in the foregoing clauses (6) (in the case of Liens to secure any refinancing, refunding, extension, renewal or replacement of Indebtedness under such clause (6), such Liens shall be deemed to have also been incurred under such clause (6), and not this clause (20), for purposes of determining amounts outstanding under such clause (6)), (7), (8), (9), (10), (11), (16) and (31); *provided, however*, that (x) such new Lien shall be limited to all or part of the same property that secured the original Lien (plus improvements on such property), (y) the Indebtedness secured by such Lien at such time is not increased to any amount greater than the sum of (A) the outstanding principal amount or, if greater, committed amount of the Indebtedness described under clauses (6), (7), (8), (9), (10), (11), (16) and (31) at the time the original Lien became a Permitted Lien under this Indenture, and (B) an amount necessary to pay any fees and expenses, including premiums, related to such refinancing, refunding, extension, renewal or replacement, and

(z) any refinancing, refunding, extension, renewal or replacement (or successive refinancings, refundings, extensions, renewals or replacements) as a whole, or in part, of any Indebtedness secured by any Lien referred to in the foregoing clause 7(B) shall, at the election of the Issuer, be secured by and entitled to the benefits of the Security Documents and rank *pari passu* with the Indebtedness that is refinanced, refunded, extended, renewed or replaced;

(21) Liens on equipment of the Issuer or any Restricted Subsidiary granted in the ordinary course of business to the Issuer's or such Restricted Subsidiary's client at which such equipment is located;

(22) judgment and attachment Liens not giving rise to an Event of Default and notices of *lis pendens* and associated rights related to litigation being contested in good faith by appropriate proceedings and for which adequate reserves have been made;

(23) Liens arising out of conditional sale, title retention, consignment or similar arrangements for the sale of goods entered into in the ordinary course of business;

(24) Liens incurred to secure cash management services or to implement cash pooling arrangements in the ordinary course of business;

(25) any encumbrance or restriction (including put and call arrangements) with respect to Capital Stock of any joint venture or similar arrangement pursuant to any joint venture or similar agreement; *provided, however*, that this clause (25) shall not apply to any Liens securing Indebtedness;

(26) any amounts held by a trustee in the funds and accounts under an indenture securing any revenue bonds issued for the benefit of the Issuer or any Restricted Subsidiary;

(27) Liens arising by virtue of any statutory or common law provisions relating to banker's Liens, rights of set-off or similar rights and remedies as to Deposit Accounts (as defined in the Uniform Commercial Code) or other funds maintained with a depository or financial institution;

(28) Liens incurred in connection with Sale/Leaseback Transactions not prohibited under this Indenture;

(29) Liens that secure Indebtedness Incurred in the ordinary course of business not to exceed \$5,000,000 at any one time outstanding;

(30) any interest of title of a lessor under any lease of real or personal property;

(31) Liens to secure Indebtedness permitted to be Incurred pursuant to Section 4.03(b)(xxiv), and any related obligations to the mortgagee secured by those Liens, on the real property and related fixtures and equipment, the acquisition, construction, repair, replacement or improvement of which was financed, in whole or in part, by such Indebtedness; and

(32) Liens on the identifiable proceeds of any property or asset subject to a Lien otherwise constituting a Permitted Lien.

“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 other entity.

“Preferred Stock” means any Equity Interest with preferential right of payment of dividends or upon liquidation, dissolution or winding up.

“Qualified Receivables Financing” means any Receivables Financing of a Receivables Subsidiary that meets the following conditions:

(1) the Board of Directors of the Issuer shall have determined in good faith that such Qualified Receivables Financing (including financing terms, covenants, termination events and other provisions) is in the aggregate economically fair and reasonable to the Issuer and the Receivables Subsidiary;

(2) all sales of accounts receivable and related assets to the Receivables Subsidiary are made at Fair Market Value (as determined in good faith by the Issuer); and

(3) the financing terms, covenants, termination events and other provisions thereof shall be market terms (as determined in good faith by the Issuer) and may include Standard Securitization Undertakings.

The grant of a security interest in any accounts receivable of the Issuer or any of its Restricted Subsidiaries (other than a Receivables Subsidiary) to secure Bank Indebtedness, Indebtedness in respect of the Securities or any Refinancing Indebtedness with respect to the Securities shall not be deemed a Qualified Receivables Financing.

“Rating Agency” means (1) Moody’s, (2) S&P and (3) any “nationally recognized statistical rating organization” within the meaning of Section 3(a)(62) of the Exchange Act selected by the Issuer or any direct or indirect parent of the Issuer as a replacement agency for Moody’s or S&P, as the case may be.

“Receivables Fees” means distributions or payments made directly or by means of discounts with respect to any participation interests issued or sold in connection with, and all other fees paid to a Person that is not a Restricted Subsidiary in connection with, any Receivables Financing.

“Receivables Financing” means any transaction or series of transactions that may be entered into by the Issuer or any of its Subsidiaries pursuant to which the Issuer or any of its Subsidiaries may sell, convey or otherwise transfer to (a) a Receivables Subsidiary (in the case of a transfer by the Issuer or any of its Subsidiaries) and (b) any other Person (in the case of a transfer by a Receivables Subsidiary), or may grant a security interest in, any accounts receivable (whether now existing or arising in the future) of the Issuer or any of its Subsidiaries, and any assets related thereto including all collateral securing such accounts receivable, all contracts and all guarantees or other obligations in respect of such accounts receivable, proceeds of such

accounts receivable and other assets that are customarily transferred or in respect of which security interests are customarily granted in connection with asset securitization transactions involving accounts receivable and any Hedging Obligations entered into by the Issuer or any such Subsidiary in connection with such accounts receivable.

“Receivables Repurchase Obligation” means any obligation of a seller of receivables in a Qualified Receivables Financing to repurchase receivables arising as a result of a breach of a representation, warranty or covenant or otherwise, including as a result of a receivable or portion thereof becoming subject to any asserted defense, dispute, offset or counterclaim of any kind as a result of any action taken by, any failure to take action by or any other event relating to the seller.

“Receivables Subsidiary” means a Restricted Subsidiary of the Issuer (or another Person formed for the purposes of engaging in Qualified Receivables Financing with the Issuer in which the Issuer or any Subsidiary of the Issuer makes an Investment and to which the Issuer or any Subsidiary of the Issuer transfers accounts receivable and related assets) that engages in no activities other than in connection with the financing of accounts receivable of the Issuer and its Subsidiaries, all proceeds thereof and all rights (contractual or other), collateral and other assets relating thereto, and any business or activities incidental or related to such business, and that is designated by the Board of Directors of the Issuer (as provided below) as a Receivables Subsidiary and:

(a) no portion of the Indebtedness or any other obligations (contingent or otherwise) of which (i) is guaranteed by the Issuer or any other Subsidiary of the Issuer (excluding guarantees of obligations (other than the principal of and interest on Indebtedness) pursuant to Standard Securitization Undertakings), (ii) is recourse to or obligates the Issuer or any other Subsidiary of the Issuer in any way other than pursuant to Standard Securitization Undertakings, or (iii) subjects any property or asset of the Issuer or any other Subsidiary of the Issuer, directly or indirectly, contingently or otherwise, to the satisfaction thereof, other than pursuant to Standard Securitization Undertakings;

(b) with which neither the Issuer nor any other Subsidiary of the Issuer has any material contract, agreement, arrangement or understanding (other than as part of the Qualified Receivables Financing) other than on terms that the Issuer reasonably believes to be no less favorable to the Issuer or such Subsidiary than those that might be obtained at the time from Persons that are not Affiliates of the Issuer; and

(c) to which neither the Issuer nor any other Subsidiary of the Issuer has any obligation to maintain or preserve such entity’s financial condition or cause such entity to achieve certain levels of operating results.

Any such designation by the Board of Directors of the Issuer shall be evidenced to the Trustee by filing with the Trustee a certified copy of the resolution of the Board of Directors of the Issuer giving effect to such designation and an Officers’ Certificate certifying that such designation complied with the foregoing conditions.

“Representative” means the trustee(s), agent(s) or representative(s) (if any) for an issue of Indebtedness; provided that if, and for so long as, such Indebtedness lacks such a Representative, then the Representative for such Indebtedness shall at all times constitute the holder or holders of a majority in outstanding principal amount of obligations under such Indebtedness.

“Restricted Cash” means Cash Equivalents held by Restricted Subsidiaries that is contractually restricted from being distributed to the Issuer, except for such restrictions that are contained in agreements governing Indebtedness permitted under this Indenture and that is secured by such Cash Equivalents.

“Restricted Investment” means an Investment other than a Permitted Investment.

“Restricted Subsidiary” means, with respect to any Person, any Subsidiary of such Person other than an Unrestricted Subsidiary of such Person. Unless otherwise indicated in this Indenture, all references to Restricted Subsidiaries shall mean Restricted Subsidiaries of the Issuer.

“S&P” means Standard & Poor’s Ratings Services or any successor to the rating agency business thereof.

“Sale/Leaseback Transaction” means an arrangement relating to property now owned or acquired after the Issue Date by the Issuer or a Restricted Subsidiary whereby the Issuer or a Restricted Subsidiary transfers such property to a Person and the Issuer or such Restricted Subsidiary leases it from such Person, other than leases between the Issuer and a Restricted Subsidiary of the Issuer or between Restricted Subsidiaries of the Issuer.

“SEC” means the United States Securities and Exchange Commission.

“Secured Bank Indebtedness” means any Bank Indebtedness that is secured by a Permitted Lien incurred or deemed incurred pursuant to clause (6)(A) of the definition of “Permitted Lien”.

“Secured Indebtedness” means any Indebtedness secured by a Lien.

“Secured Indebtedness Leverage Ratio” means, with respect to any Person at any date, the ratio of (i) Secured Indebtedness of such Person and its Restricted Subsidiaries as of such date of calculation (determined on a consolidated basis in accordance with GAAP) that constitutes, without duplication, Obligations and First Priority Lien Obligations less the amount of Cash Equivalents in excess of any Restricted Cash that would be stated on the balance sheet of such Person and its Restricted Subsidiaries and held by such Person and its Restricted Subsidiaries as of such date of determination to (ii) EBITDA of such Person for the four full fiscal quarters for which internal financial statements are available immediately preceding such date (which will, for purposes of this calculation, not be less than zero). In the event that the Issuer or any of its Restricted Subsidiaries Incurs, repays, repurchases or redeems or otherwise discharges any Indebtedness subsequent to the commencement of the period for which the Secured Indebtedness Leverage Ratio is being calculated but prior to the event for which the calculation of the Secured Indebtedness Leverage Ratio is made (the “Secured Leverage

Calculation Date”), then the Secured Indebtedness Leverage Ratio shall be calculated giving *pro forma* effect to such Incurrence, repayment, repurchase or redemption or discharge of Indebtedness as if the same had occurred at the beginning of the applicable four-quarter period; *provided* that the Issuer may elect, pursuant to an Officers’ Certificate delivered to the Trustee, to treat all or any portion of the commitment under any Indebtedness as being Incurred at such time, in which case any subsequent Incurrence of Indebtedness under such commitment shall not be deemed, for purposes of this calculation, to be an Incurrence at such subsequent time.

For purposes of making the computation referred to above, Investments, acquisitions, dispositions, mergers, amalgamations, consolidations and discontinued operations (as determined in accordance with GAAP), in each case with respect to a business, a division or an operating unit of a business, as applicable, and any operational changes that the Issuer or any of its Restricted Subsidiaries has both determined to make and/or made during the four-quarter reference period or subsequent to such reference period and on or prior to or simultaneously with the Secured Leverage Calculation Date shall be calculated on a *pro forma* basis assuming that all such Investments, acquisitions, dispositions, mergers, amalgamations, consolidations, discontinued operations and other operational changes (and the change of any associated Indebtedness and the change in EBITDA resulting therefrom) had occurred on the first day of the four-quarter reference period. If since the beginning of such period any Person that subsequently became a Restricted Subsidiary or was merged with or into the Issuer or any Restricted Subsidiary since the beginning of such period shall have made any Investment, acquisition, disposition, merger, amalgamation, consolidation, discontinued operation or operational change, in each case with respect to a business, a division or an operating unit of a business, as applicable, that would have required adjustment pursuant to this definition, then the Secured Indebtedness Leverage Ratio shall be calculated giving *pro forma* effect thereto for such period as if such Investment, acquisition, disposition, discontinued operation, merger, amalgamation, consolidation or operational change had occurred at the beginning of the applicable four-quarter period.

For purposes of this definition, whenever *pro forma* effect is to be given to any event, the *pro forma* calculations shall be made in good faith by a responsible financial or accounting officer of the Issuer. Any such *pro forma* calculation may include adjustments appropriate, in the reasonable good faith determination of the Issuer as set forth in an Officers’ Certificate, to reflect operating expense reductions and other operating improvements or synergies reasonably expected to result from the applicable event; *provided*, that any such operating expense reductions, operating improvements or synergies shall be approved by the Audit Committee of the Board of Directors of the Issuer if in excess of \$5,000,000.

For purposes of this definition, any amount in a currency other than U.S. Dollars will be converted to U.S. Dollars based on the average exchange rate for such currency for the most recent twelve month period immediately prior to the date of determination in a manner consistent with that used in calculating EBITDA for the applicable period.

“Securities Act” means the United States Securities Act of 1933, as amended, and the rules and regulations of the SEC promulgated thereunder.

“Security Documents” means the security agreements, pledge agreements, mortgages, collateral assignments and related agreements, as amended, supplemented, restated, renewed, refunded, replaced, restructured, repaid, refinanced or otherwise modified from time to time, creating, perfecting or otherwise evidencing the security interests in the Notes Collateral as contemplated by this Indenture.

“Similar Business” means a business, the majority of whose revenues are derived from the activities of the Issuer and its Subsidiaries as of the Issue Date or any business or activity that is reasonably similar or complementary thereto or a reasonable extension, development or expansion thereof or ancillary or complementary thereto.

“Standard Securitization Undertakings” means representations, warranties, covenants, indemnities and guarantees of performance entered into by the Issuer or any Subsidiary of the Issuer that the Issuer has determined in good faith to be customary in a Receivables Financing including those relating to the servicing of the assets of a Receivables Subsidiary, it being understood that any Receivables Repurchase Obligation shall be deemed to be a Standard Securitization Undertaking.

“Stated Maturity” means, with respect to any security, the date specified in such security as the fixed date on which the final payment of principal of such security is due and payable, including pursuant to any mandatory redemption provision (but excluding any provision providing for the repurchase of such security at the option of the holder thereof upon the happening of any contingency beyond the control of the issuer unless such contingency has occurred).

“Subordinated Indebtedness” means (a) with respect to the Issuer, any Indebtedness of the Issuer that is by its terms subordinated in right of payment to the Securities or (b) with respect to any Guarantor, any Indebtedness of such Guarantor that is by its terms subordinated in right of payment to its Guarantee. For the avoidance of doubt, Subordinated Indebtedness shall be deemed to include any Indebtedness reflecting the payment subordination terms set forth in Exhibit E to this Indenture.

“Subsidiary” means, with respect to any Person, (1) any corporation, association or other business entity (other than a partnership, joint venture or limited liability company) of which more than 50% of the total voting power of shares of Capital Stock entitled (without regard to the occurrence of any contingency) to vote in the election of directors, managers or trustees thereof is at the time of determination owned or controlled, directly or indirectly, by such Person or one or more of the other Subsidiaries of that Person or a combination thereof, and (2) any partnership, joint venture or limited liability company of which (x) more than 50% of the capital accounts, distribution rights, total equity and voting interests or general and limited partnership interests, as applicable, are owned or controlled, directly or indirectly, by such Person or one or more of the other Subsidiaries of that Person or a combination thereof, whether in the form of membership, general, special or limited partnership interests or otherwise, and (y) such Person or any Subsidiary of such Person is a controlling general partner or otherwise controls such entity. For purposes of clarity, a Subsidiary of a Person shall not include any Person that is under common control with the first Person solely by virtue of having directors, managers or trustees in common and shall not include any Person that is solely under common control with the first Person (i.e., a sister company with a common parent).

“TIA” means the Trust Indenture Act of 1939 (15 U.S.C. Sections 77aaa-77bbb) as in effect on the date of this Indenture; *provided, however*, that in the event the Trust Indenture Act of 1939 is amended after the date hereof, the term “TIA” shall mean, to the extent required by such amendment, the Trust Indenture Act of 1939, as so amended, it being acknowledged that this Indenture will not be qualified under the TIA.

“Treasury Rate” means, in respect of any redemption date, the weekly average yield as of such redemption date of actually traded United States Treasury securities adjusted to a constant maturity of one year (as compiled and published in the most recent Federal Reserve Statistical Release H.15(519) that has become publicly available at least two Business Days prior to such redemption date (or, if such Federal Reserve Statistical Release H.15(519) is no longer published, any publicly available source of similar market data)).

“Trust Officer” means:

(1) any officer within the Corporate Trust Office of the Trustee, including any vice president, assistant vice president, assistant secretary, assistant treasurer, trust officer or any other officer of the Trustee to whom any corporate trust matter relating to this Indenture is referred because of such Person’s knowledge of and familiarity with the particular subject, and

(2) who shall have direct responsibility for the administration of this Indenture.

“Trustee” means the party named as such in this Indenture until a successor replaces it in accordance with the applicable provisions of this Indenture and, thereafter, means such successor.

“Uniform Commercial Code” means the New York Uniform Commercial Code as in effect from time to time.

“Unrestricted Subsidiary” means:

(1) any Subsidiary of the Issuer that at the time of determination shall be designated an Unrestricted Subsidiary by the Board of Directors of such Person in the manner provided below; and

(2) any Subsidiary of an Unrestricted Subsidiary.

The Issuer may designate any Subsidiary of the Issuer (including any newly acquired or newly formed Subsidiary of the Issuer) to be an Unrestricted Subsidiary unless such Subsidiary or any of its Subsidiaries owns any Equity Interests or Indebtedness of, or owns or holds any Lien (other than a Permitted Lien under clause (19) of the definition of “Permitted Liens”) on any property of, the Issuer or any other Subsidiary of the Issuer that is not a Subsidiary of the Subsidiary to be so designated; *provided, however*, that the Subsidiary to be so

designated and its Subsidiaries do not at the time of designation have and do not thereafter Incur any Indebtedness with respect to which the Issuer or any of its Restricted Subsidiaries have executed guarantees; *provided, further, however*, that either:

- (a) the Subsidiary to be so designated has total consolidated assets of \$1,000 or less; or
- (b) if such Subsidiary has consolidated assets greater than \$1,000, then such designation would be permitted under Section 4.04 (including Permitted Investments).

Notwithstanding the foregoing, Silver Creek Pharmaceuticals, Inc. will be deemed to be an Unrestricted Subsidiary as of the Issue Date.

The Issuer may designate any Unrestricted Subsidiary to be a Restricted Subsidiary; *provided, however*, that immediately after giving effect to such designation:

- (x) (1) the Issuer could Incur \$1.00 of additional Indebtedness pursuant to the Consolidated Leverage Ratio test set forth in Section 4.03(a) or (2) the Consolidated Leverage Ratio for the Issuer and its Restricted Subsidiaries would be less than such ratio for the Issuer and its Restricted Subsidiaries immediately prior to such designation, in each case on a *pro forma* basis taking into account such designation, and
- (y) no Event of Default shall have occurred and be continuing.

Any such designation by the Issuer shall be evidenced to the Trustee by promptly filing with the Trustee a copy of the resolution of the Board of Directors of the Issuer or any committee thereof giving effect to such designation and an Officers' Certificate certifying that such designation complied with the foregoing provisions.

"U.S. Government Obligations" means securities that are:

- (1) direct obligations of the United States of America for the timely payment of which its full faith and credit is pledged, or
- (2) obligations of a Person controlled or supervised by and acting as an agency or instrumentality of the United States of America, the timely payment of which is unconditionally guaranteed as a full faith and credit obligation by the United States of America,

which, in each case, are not callable or redeemable at the option of the issuer thereof, and shall also include a depository receipt issued by a bank (as defined in Section 3(a)(2) of the Securities Act) as custodian with respect to any such U.S. Government Obligations or a specific payment of principal of or interest on any such U.S. Government Obligations held by such custodian for the account of the holder of such depository receipt; *provided* that (except as required by law) such custodian is not authorized to make any deduction from the amount payable to the holder of such depository receipt from any amount received by the custodian in respect of the U.S. Government Obligations or the specific payment of principal of or interest on the U.S. Government Obligations evidenced by such depository receipt.

“Voting Stock” of any Person as of any date means the Capital Stock of such Person that is at the time entitled to vote in the election of the Board of Directors of such Person.

“Weighted Average Life to Maturity” means, when applied to any Indebtedness or Disqualified Stock, as the case may be, at any date, the quotient obtained by dividing (1) the sum of the products of the number of years from the date of determination to the date of each successive scheduled principal payment of such Indebtedness or redemption or similar payment with respect to such Disqualified Stock multiplied by the amount of such payment, by (2) the sum of all such payments.

“Wholly Owned Restricted Subsidiary” means, any Wholly Owned Subsidiary that is a Restricted Subsidiary.

“Wholly Owned Subsidiary” of any Person means a Subsidiary of such Person 100% of the outstanding Capital Stock or other ownership interests of which (other than directors’ qualifying shares or shares required to be held by Subsidiaries not organized or existing under the laws of the United States of America or any state or territory thereof or the District of Columbia) shall at the time be owned by such Person or by one or more Wholly Owned Subsidiaries of such Person.

SECTION 1.02. Other Definitions.

<u>Term</u>	<u>Defined in Section</u>
“Affiliate Transaction”	4.07(a)
“After-Acquired Property”	4.13
“Asset Sale Offer”	4.06(b)
“Bankruptcy Law”	6.01
“Base Currency”	12.14(b)(i)(A)
“Change of Control Offer”	4.08(b)
“Confidential Information”	7.11
“Confidential Parties”	7.11
“Consolidated Leverage Calculation Date”	“Consolidated Leverage Ratio” definition
“covenant defeasance option”	8.01(e)
“Custodian”	6.01
“Definitive Security”	Appendix A
“Depository”	Appendix A
“Event of Default”	6.01
“Excess Proceeds”	4.06(b)
“Global Security”	Appendix A
“Guaranteed Obligations”	10.01(a)
“Increased Amount”	4.11
“Judgment Currency”	12.14(b)(i)(A)
“legal defeasance option”	8.01(e)
“Notes Collateral Asset Sale Offer”	4.06(b)
“Notes Collateral Excess Proceeds”	4.06(b)
“Offer Period”	4.06(d)

Term	Defined in Section
“Paying Agent”	2.04(a)
“Payment Date”	Exhibit A
“primary obligations”	“Contingent Obligations” definition
“primary obligor”	“Contingent Obligations” definition
“protected purchaser”	2.08
“rate(s) of exchange”	12.14(d)
“QIB”	Appendix A
“Record Date”	Exhibit A
“Reference Period”	“Cumulative Credit” definition
“Refinancing Indebtedness”	4.03(b)(xiv)
“Refunding Capital Stock”	4.04(b)(ii)
“Registrar”	2.04(a)
“Restricted Payments”	4.04(a)
“Retired Capital Stock”	4.04(b)(ii)
“Second Commitment”	4.06(b)
“Secured Leverage Calculation Date”	“Secured Indebtedness Leverage Ratio” definition
“Securities”	Preamble
“Securities Custodian”	Appendix A
“Successor Company”	5.01(a)(i)
“Successor Guarantor”	5.01(b)(i)

SECTION 1.03. Rules of Construction. Unless the context otherwise requires:

(a) a term has the meaning assigned to it;

(b) all accounting terms used herein shall be interpreted, all accounting determinations hereunder shall be made, and all financial statements required to be delivered hereunder shall be prepared in accordance with GAAP as defined herein, and an accounting term not otherwise defined has the meaning assigned to it in accordance with GAAP as defined herein;

(c) “or” is not exclusive;

(d) “including” means including without limitation;

(e) words in the singular include the plural and words in the plural include the singular;

(f) unsecured Indebtedness shall not be deemed to be subordinate or junior to Secured Indebtedness merely by virtue of its nature as unsecured Indebtedness;

(g) the principal amount of any non-interest bearing or other discount security at any date shall be the principal amount thereof that would be shown on a balance sheet of the issuer dated such date prepared in accordance with GAAP as defined herein;

(h) the principal amount of any Preferred Stock shall be (i) the maximum liquidation value of such Preferred Stock or (ii) the maximum mandatory redemption or mandatory repurchase price with respect to such Preferred Stock, whichever is greater;

(i) “\$” and “U.S. Dollars” each refers to United States dollars, or such other money of the United States of America that at the time of payment is legal tender for payment of public and private debts; and

(j) the words “asset” or “property” shall be construed to have the same meaning and effect and to refer to any and all tangible and intangible assets and properties, including cash, securities, accounts and contract rights.

ARTICLE 2

THE SECURITIES

SECTION 2.01. Amount of Securities. The aggregate principal amount of Securities that may be authenticated and delivered under this Indenture is limited to \$175,000,000.

The Securities shall be treated as a single class for all purposes under this Indenture, including directions provided to the Trustee pursuant to Section 6.05, waivers, amendments, redemptions and offers to purchase, and shall rank on a parity basis in right of payment and security.

SECTION 2.02. Form and Dating. Provisions relating to the Securities are set forth in Appendix A hereto, which is hereby incorporated in and expressly made a part of this Indenture. The Securities and the Trustee’s certificate of authentication shall each be substantially in the form of Exhibit A hereto, which is hereby incorporated in and expressly made a part of this Indenture. The Securities may have notations, legends or endorsements required by law, stock exchange rule, agreements to which the Issuer or any Guarantor is subject, if any, or usage (*provided* that any such notation, legend or endorsement is in a form acceptable to the Issuer). Each Security shall be dated the date of its authentication. The Securities shall be issuable only in registered form, without interest coupons, and in minimum denominations of \$250,000 and any integral multiple of \$1,000 in excess thereof.

SECTION 2.03. Execution and Authentication. The Trustee shall authenticate and make available for delivery upon a written order of the Issuer signed by one Officer Securities for original issue on the date hereof in an aggregate principal amount of \$175,000,000. Such order shall specify the amount of the Securities to be authenticated, the form in which the Securities are to be authenticated and the date on which the original issue of Securities is to be authenticated.

One Officer shall sign the Securities for the Issuer by manual or facsimile signature.

If an Officer whose signature is on a Security no longer holds that office at the time the Trustee authenticates the Security, the Security shall be valid nevertheless.

A Security shall not be valid until an authorized signatory of the Trustee manually signs the certificate of authentication on the Security. The signature shall be conclusive evidence that the Security has been authenticated under this Indenture.

The Trustee may appoint one or more authenticating agents reasonably acceptable to the Issuer to authenticate the Securities. Any such appointment shall be evidenced by an instrument signed by a Trust Officer, a copy of which shall be furnished to the Issuer. Unless limited by the terms of such appointment, an authenticating agent may authenticate Securities whenever the Trustee may do so. Each reference in this Indenture to authentication by the Trustee includes authentication by such agent. An authenticating agent has the same rights as any Registrar, Paying Agent or agent for service of notices and demands.

SECTION 2.04. Registrar and Paying Agent.

(a) The Issuer shall maintain (i) an office or agency where Securities may be presented for registration of transfer or for exchange (the “Registrar”) and (ii) an office or agency where Securities may be presented for payment (the “Paying Agent”). The Registrar shall keep a register of the Securities and of their transfer and exchange. The Issuer may have one or more co-registrars and one or more additional paying agents. The term “Registrar” includes any co-registrars. The term “Paying Agent” includes the Paying Agent and any additional paying agents. The Issuer initially appoints the Trustee as Registrar, Paying Agent and the Securities Custodian with respect to the Global Securities and as Registrar and Paying Agent with respect to the Definitive Securities.

(b) The Issuer may enter into an appropriate agency agreement with any Registrar or Paying Agent not a party to this Indenture. The agreement shall implement the provisions of this Indenture that relate to such agent. The Issuer shall notify the Trustee of the name and address of any such agent. If the Issuer fails to maintain a Registrar or Paying Agent, the Trustee shall act as such and shall be entitled to appropriate compensation therefor pursuant to Section 7.06. The Issuer or any of its domestically organized Wholly Owned Restricted Subsidiaries may act as Paying Agent or Registrar.

(c) The Issuer may remove any Registrar or Paying Agent upon written notice to such Registrar or Paying Agent and to the Trustee; *provided, however*, that no such removal shall become effective until (i) if applicable, acceptance of an appointment by a successor as evidenced by an appropriate agreement entered into by the Issuer and such successor Registrar or Paying Agent, as the case may be, and delivered to the Trustee or (ii) notification to the Trustee that the Trustee shall serve as Registrar or Paying Agent until the appointment of a successor in accordance with clause (i) above. The Registrar or Paying Agent may resign at any time upon written notice to the Issuer and the Trustee; *provided, however*, that the Trustee may resign as Paying Agent or Registrar only if the Trustee also resigns as Trustee in accordance with Section 7.07.

SECTION 2.05. Paying Agent to Hold Money in Trust. On or prior to each due date of the principal of and interest on any Security, the Issuer shall deposit with each Paying Agent (or if the Issuer or a Wholly Owned Restricted Subsidiary is acting as Paying Agent, segregate and hold in trust for the benefit of the Persons entitled thereto) a sum sufficient to pay

such principal and interest when so becoming due. The Issuer shall require each Paying Agent (other than the Trustee) to agree in writing that a Paying Agent shall hold in trust for the benefit of Holders or the Trustee all money held by a Paying Agent for the payment of principal of and interest on the Securities, and shall notify the Trustee of any default by the Issuer in making any such payment. While any such default continues, the Trustee may require a Paying Agent to pay all money held by it to the Trustee. If the Issuer or a Wholly Owned Restricted Subsidiary of the Issuer acts as Paying Agent, it shall segregate the money held by it as Paying Agent and hold it in trust for the benefit of the Persons entitled thereto. Upon any bankruptcy or reorganization proceedings relating to the Issuer, the Trustee will serve as Paying Agent if not otherwise so acting. The Issuer at any time may require a Paying Agent to pay all money held by it to the Trustee and to account for any funds disbursed by such Paying Agent. Upon complying with this Section 2.05, a Paying Agent shall have no further liability for the money delivered to the Trustee.

SECTION 2.06. Holder Lists. The Trustee shall preserve in as current a form as is reasonably practicable the most recent list available to it of the names and addresses of Holders. If the Trustee is not the Registrar, the Issuer shall furnish, or cause the Registrar to furnish, to the Trustee, in writing at least five Business Days before each Payment Date and at such other times as the Trustee may request in writing, a list in such form and as of such date as the Trustee may reasonably require of the names and addresses of Holders. The Issuer shall also maintain a copy of such list of the names and addresses of Holders at its registered office.

SECTION 2.07. Transfer and Exchange. The Securities shall be issued in registered form and shall be transferable only upon the surrender of a Security for registration of transfer and in compliance with Appendix A. When a Security is presented to the Registrar with a request to register a transfer, the Registrar shall register the transfer as requested if its requirements therefor are met. When Securities are presented to the Registrar with a request to exchange them for an equal principal amount of Securities of other denominations, the Registrar shall make the exchange as requested if the same requirements are met. To permit registration of transfers and exchanges, the Issuer shall execute and the Trustee shall authenticate Securities at the Registrar's request. No service charge will be made for any registration of transfer or exchange of the Securities, but the Issuer may require payment from the Holder of a sum sufficient to pay all taxes (including transfer taxes), assessments or other governmental charges in connection with any transfer or exchange pursuant to this Section 2.07. Upon any transfer or exchange, the Registrar and the Trustee may require a Holder, among other things, to furnish appropriate endorsements and transfer documents. The Issuer shall not be required to make, and the Registrar need not register, transfers or exchanges of Securities selected for redemption (except, in the case of Securities to be redeemed in part, the portion thereof not to be redeemed) or of any Securities for a period of 15 days prior to a selection of Securities to be redeemed.

Prior to the due presentation for registration of transfer of any Security, the Issuer, the Guarantors, the Trustee, the Paying Agent and the Registrar may deem and treat the Person in whose name a Security is registered as the absolute owner of such Security for the purpose of receiving payment of principal of and interest, if any, on such Security and for all other purposes whatsoever, whether or not such Security is overdue, and none of the Issuer, any Guarantor, the Trustee, the Paying Agent or the Registrar shall be affected by notice to the contrary.

Any holder of a beneficial interest in a Global Security shall, by acceptance of such beneficial interest, agree that transfers of beneficial interests in such Global Security may be effected only through a book-entry system maintained by (a) the Holder of such Global Security (or its agent) or (b) any holder of a beneficial interest in such Global Security, and that ownership of a beneficial interest in such Global Security shall be required to be reflected in a book entry.

All Securities issued upon any transfer or exchange pursuant to the terms of this Indenture shall evidence the same debt and shall be entitled to the same benefits under this Indenture as the Securities surrendered upon such transfer or exchange.

SECTION 2.08. Replacement Securities. If a mutilated Security is surrendered to the Registrar or if the Holder of a Security claims that the Security has been lost, destroyed or wrongfully taken, the Issuer shall issue and the Trustee shall authenticate a replacement Security if the requirements of Section 8-405 of the Uniform Commercial Code are met, such that the Holder (a) satisfies the Issuer or the Trustee within a reasonable time after such Holder has notice of such loss, destruction or wrongful taking and the Registrar does not register a transfer prior to receiving such notification, (b) makes such request to the Issuer or the Trustee prior to the Security being acquired by a protected purchaser as defined in Section 8-303 of the Uniform Commercial Code (a “protected purchaser”) and (c) satisfies any other reasonable requirements of the Trustee. If required by the Trustee or the Issuer, such Holder shall furnish an indemnity bond sufficient in the judgment of the Trustee and the Issuer to protect the Issuer, each Guarantor, the Trustee, the Paying Agent and the Registrar from any loss that any of them may suffer if a Security is replaced. The Issuer and the Trustee may charge the Holder for their expenses in replacing a Security (including attorneys’ fees and disbursements in replacing such Security). In the event any such mutilated, lost, destroyed or wrongfully taken Security has become or is about to become due and payable, the Issuer in its discretion may pay such Security instead of issuing a new Security in replacement thereof.

Every replacement Security is an additional obligation of the Issuer and will be entitled to all of the benefits of this Indenture equally and proportionately with all other Securities duly issued hereunder.

The provisions of this Section 2.08 are exclusive and shall preclude (to the extent lawful) all other rights and remedies with respect to the replacement or payment of mutilated, lost, destroyed or wrongfully taken Securities.

SECTION 2.09. Outstanding Securities. Securities outstanding at any time are all Securities authenticated by the Trustee except for those canceled by it, those delivered to it for cancellation and those described in this Section 2.09 as not outstanding. Subject to Section 12.04, a Security does not cease to be outstanding because the Issuer or an Affiliate of the Issuer holds the Security.

If a Security is replaced pursuant to Section 2.08 (other than a mutilated Security surrendered for replacement), it ceases to be outstanding unless the Trustee and the Issuer receive proof satisfactory to them that the replaced Security is held by a protected purchaser. A mutilated Security ceases to be outstanding upon surrender of such Security and replacement thereof pursuant to Section 2.08.

If a Paying Agent segregates and holds in trust, in accordance with this Indenture, on a redemption date or maturity date money sufficient to pay all principal and interest payable on that date with respect to the Securities (or portions thereof) to be redeemed or maturing, as the case may be, and no Paying Agent is prohibited from paying such money to the Holders on that date pursuant to the terms of this Indenture, then on and after that date such Securities (or portions thereof) cease to be outstanding and interest on them ceases to accrue.

SECTION 2.10. Temporary Securities. In the event that Definitive Securities are to be issued under the terms of this Indenture, until such Definitive Securities are ready for delivery, the Issuer may prepare and the Trustee shall authenticate temporary Securities. Temporary Securities shall be substantially in the form of Definitive Securities but may have variations that the Issuer considers appropriate for temporary Securities. Without unreasonable delay, the Issuer shall prepare and the Trustee shall authenticate Definitive Securities and make them available for delivery in exchange for temporary Securities upon surrender of such temporary Securities at the office or agency of the Issuer, without charge to the Holder. Until such exchange, temporary Securities shall be entitled to the same rights, benefits and privileges as Definitive Securities under this Indenture.

SECTION 2.11. Cancellation. The Issuer at any time may deliver Securities to the Trustee for cancellation. The Registrar and each Paying Agent shall forward to the Trustee any Securities surrendered to them for registration of transfer, exchange or payment. The Trustee and no one else shall cancel all Securities surrendered for registration of transfer, exchange, payment or cancellation and shall dispose of canceled Securities in accordance with its customary procedures. Certification of the destruction of all cancelled Securities shall be delivered to the Issuer. The Issuer may not issue new Securities to replace Securities it has redeemed, paid or delivered to the Trustee for cancellation. The Trustee shall not authenticate Securities in place of canceled Securities other than pursuant to the terms of this Indenture.

SECTION 2.12. Defaulted Interest. If the Issuer defaults in a payment of interest on the Securities, the Issuer shall pay the defaulted interest then borne by the Securities (plus interest on such defaulted interest to the extent lawful) in any lawful manner. The Issuer may pay the defaulted interest to the Persons who are Holders on a subsequent special record date. The Issuer shall fix or cause to be fixed any such special record date and payment date and shall promptly provide or cause to be provided to each affected Holder a written notice that states the special record date, the payment date and the amount of defaulted interest to be paid. The special record date for the payment of such defaulted interest shall not be more than 15 days and shall not be less than 10 days prior to the proposed payment date and shall not be less than 10 days after the receipt by the Trustee of the notice of the proposed payment.

SECTION 2.13. CUSIP Numbers, ISINs, etc. The Issuer in issuing the Securities may use CUSIP numbers, ISINs and “Common Code” numbers (if then generally in use) and, if so, the Trustee shall use CUSIP numbers, ISINs and “Common Code” numbers in notices (including notices of redemption) as a convenience to Holders; *provided, however*, that any such notice may state that no representation is made as to the correctness of such numbers,

either as printed on the Securities or as contained in any notice that reliance may be placed only on the other identification numbers printed on the Securities and that any such notice shall not be affected by any defect in or omission of such numbers. The Issuer shall advise the Trustee of any change in the CUSIP numbers, ISINs and "Common Code" numbers.

SECTION 2.14. Calculation of Principal Amount of Securities. The aggregate principal amount of the Securities, at any date of determination, shall be the principal amount of the Securities at such date of determination. With respect to any matter requiring consent, waiver, approval or other action of the Holders of a specified percentage of the principal amount of all the Securities, such percentage shall be calculated, on the relevant date of determination, by dividing (a) the principal amount, as of such date of determination, of Securities, the Holders of which have so consented, waived, approved or taken other action by (b) the aggregate principal amount, as of such date of determination, of the Securities then outstanding, in each case, as determined in accordance with the preceding sentence, Section 2.09 and Section 12.04. Any such calculation made pursuant to this Section 2.14 shall be made by the Issuer and delivered to the Trustee pursuant to an Officers' Certificate. The Issuer and the Trustee agree that any action of the Holders may be evidenced by the DTC applicable procedures or by such other procedures as the Issuer and Trustee may agree.

SECTION 2.15. Statement to Holders. After the end of each calendar year but not later than the latest date permitted by applicable law, the Trustee shall (or shall instruct any Paying Agent to) furnish to each Person who at any time during such calendar year was a Holder a statement (for example, a Form 1099 or any other means required by applicable law) prepared by the Trustee containing the interest and original issue discount paid with respect to the Securities for such calendar year or, in the event such Person was a Holder during only a portion of such calendar year, for the applicable portion of such calendar year, and such other items as are readily available to the Trustee and that a Holder shall reasonably request as necessary for the purpose of such Holder's preparation of its U.S. federal income or other tax returns. So long as any of the Securities are registered in the name of DTC or its nominee, such report and such other items will be prepared on the basis of such information supplied to the Trustee by DTC and members of, or direct or indirect participants in, DTC and will be delivered by the Trustee to DTC and by DTC to the applicable beneficial holders of Securities in the manner described above. In the event that any such information has been provided by any Paying Agent directly to such Person through other tax-related reports or otherwise, the Trustee in its capacity as Paying Agent shall not be obligated to comply with such request for information.

ARTICLE 3

REDEMPTION

SECTION 3.01. Redemption. The Securities may be redeemed by the Issuer at its option, in whole, or from time to time in part, on any Business Day specified by the Issuer, subject to the conditions and at the redemption prices set forth in Paragraph 5 of the form of Security set forth in Exhibit A hereto, which is hereby incorporated by reference and made a part of this Indenture, together with accrued and unpaid interest to the redemption date.

SECTION 3.02. Applicability of Article. Redemption of Securities at the election of the Issuer or otherwise, as permitted or required by any provision of this Indenture, shall be made in accordance with such provision and this Article 3.

SECTION 3.03. Notices to Trustee. If the Issuer elects to redeem Securities pursuant to the optional redemption provisions of Paragraph 5 of the Security, it shall notify the Trustee and the Holders in writing of (i) the Section of this Indenture and the Paragraph of the Security (if any) pursuant to which the redemption shall occur, (ii) the redemption date, (iii) the principal amount of Securities to be redeemed and (iv) the redemption price.

The Issuer shall provide written notice to the Trustee provided for in this Section 3.03 at least 30 days but not more than 60 days before a redemption date if the redemption is pursuant to Paragraph 5 of the Security, unless a shorter period is acceptable to the Trustee. Such notice shall be accompanied by an Officers' Certificate and Opinion of Counsel from the Issuer to the effect that such redemption will comply with the conditions herein. If fewer than all the Securities are to be redeemed, the record date relating to such redemption shall be selected by the Issuer and given to the Trustee, which record date shall be not fewer than 15 days after the date of notice to the Trustee. Any such notice may be canceled at any time prior to written notice of such redemption being provided to any Holder and shall thereby be void and of no effect.

SECTION 3.04. Selection of Securities to Be Redeemed. In the case of any partial redemption, and if the Securities are Global Securities held by the Depository, the Depository will select the Securities to be redeemed in accordance with its operational arrangements. If the Securities are not Global Securities held by the Depository, selection of the Securities for redemption will be made by the Trustee on a pro rata basis to the extent practicable or such other method the Trustee deems fair and appropriate; *provided* that no Securities of \$1,000 or less shall be redeemed in part. The Trustee shall make the selection from outstanding Securities not previously called for redemption. The Trustee may select for redemption portions of the principal of Securities that have denominations larger than \$1,000. Securities and portions of them the Trustee selects shall be in amounts of \$1,000 or any integral multiple of \$1,000 in excess thereof. Provisions of this Indenture that apply to Securities called for redemption also apply to portions of Securities called for redemption. The Trustee shall notify the Issuer promptly of the Securities or portions of Securities to be redeemed.

SECTION 3.05. Notice of Optional Redemption.

(a) At least 30 days but not more than 60 days before a redemption date pursuant to Paragraph 5 of the Security, the Issuer shall provide or cause to be provided a written notice of redemption to each Holder whose Securities are to be redeemed.

Any such notice shall identify the Securities to be redeemed and shall state:

- (i) the redemption date;
- (ii) the redemption price (or manner of calculation thereof if not then known) and the amount of accrued interest to the redemption date;
- (iii) the name and address of the Paying Agent;

(iv) that Securities called for redemption must be surrendered to the Paying Agent to collect the redemption price, plus accrued interest;

(v) that all outstanding Securities are to be redeemed or, if fewer than all the outstanding Securities are to be redeemed, the certificate numbers and principal amounts of the particular Securities to be redeemed, the aggregate principal amount of Securities to be redeemed and the aggregate principal amount of Securities to be outstanding after such partial redemption;

(vi) that, unless the Issuer defaults in making such redemption payment or the Paying Agent is prohibited from making such payment pursuant to the terms of this Indenture, interest on Securities (or portion thereof) called for redemption ceases to accrue on and after the redemption date;

(vii) the CUSIP number, ISIN and/or "Common Code" number, if any, printed on the Securities being redeemed;

(viii) that no representation is made as to the correctness or accuracy of the CUSIP number or ISIN and/or "Common Code" number, if any, listed in such notice or printed on the Securities; and

(ix) such other matters as the Issuer deems desirable or appropriate.

Notice of any redemption may, at the Issuer's direction, be subject to one or more conditions precedent, including the receipt by the Trustee, on or prior to the redemption date, of money sufficient to pay the principal of, and premium, if any, and interest on, the Securities being redeemed.

(b) At the Issuer's request, the Trustee shall give the notice of redemption in the Issuer's name and at the Issuer's expense. In such event, the Issuer shall provide the Trustee with the information required by this Section 3.05 at least five Business Days (unless the Trustee consents to a shorter period) prior to the date such notice is to be provided to Holders and such notice may not be canceled but may be subject to such conditions precedent as shall be set forth in such notice.

SECTION 3.06. Effect of Notice of Redemption. Once written notice of redemption is provided in accordance with Section 3.05, Securities called for redemption become due and payable on the redemption date and at the redemption price stated in the notice, subject to the satisfaction or waiver of any conditions precedent in the notice of redemption. Upon surrender to the Paying Agent, such Securities shall be paid at the redemption price stated in the notice, plus accrued interest, to, but not including, the redemption date; *provided, however*, that if the redemption date is after a Record Date and on or prior to the related Payment Date, the accrued interest shall be payable to the Holder of the redeemed Securities registered on such Record Date. Failure to give notice or any defect in the notice to any Holder shall not affect the validity of the notice to any other Holder.

SECTION 3.07. Deposit of Redemption Price. With respect to any Securities, prior to 10:00 a.m., New York City time, on the redemption date, the Issuer shall deposit with the

Paying Agent (or, if the Issuer or a Wholly Owned Restricted Subsidiary is the Paying Agent, shall segregate and hold in trust) money sufficient to pay the redemption price of and accrued interest on all Securities or portions thereof to be redeemed on that date other than Securities or portions of Securities called for redemption that have been delivered by the Issuer to the Trustee for cancellation. On and after the redemption date, interest shall cease to accrue on Securities or portions thereof called for redemption so long as the Issuer has deposited with the Paying Agent funds sufficient to pay the principal of, plus accrued and unpaid interest on, the Securities to be redeemed, unless the Paying Agent is prohibited from making such payment pursuant to the terms of this Indenture, provided that the Issuer has provided an Officers' Certificate to the Trustee stating that all conditions precedent (if any) to which such redemption has been made subject have been satisfied.

SECTION 3.08. Securities Redeemed in Part. Upon surrender of a Security that is redeemed in part, the Issuer shall execute and the Trustee shall authenticate for the Holder (at the Issuer's expense) a new Security equal in principal amount to the unredeemed portion of the Security surrendered.

ARTICLE 4

COVENANTS

SECTION 4.01. Payment of Securities.

(a) The Issuer shall promptly pay the principal of and interest on the Securities on the dates and in the manner provided in the Securities and in this Indenture. An installment of principal or interest shall be considered paid on the date due if on such date the Trustee or the Paying Agent holds as of 12:00 noon New York City time money sufficient to pay all principal and interest then due and the Trustee or the Paying Agent, as the case may be, is not prohibited from paying such money to the Holders on that date pursuant to the terms of this Indenture.

(b) On each Payment Date, commencing June 15, 2019, or on the succeeding Business Day if any such date is not a Business Day, the Issuer shall pay an installment of principal of the Securities (subject to adjustment as described below) in an amount set forth below corresponding to the applicable Payment Date:

<u>Payment Date</u>	<u>Amount</u>
June 15, 2019	\$21,875,000
December 15, 2019	\$21,875,000
June 15, 2020	\$21,875,000
December 15, 2020	\$21,875,000
June 15, 2021	\$21,875,000
December 15, 2021	\$21,875,000
June 15, 2022	\$21,875,000
December 15, 2022	All remaining outstanding principal of the Securities at such date

In the event that there shall have been any partial redemption of the Securities, each principal installment amount set forth above subsequent to such partial redemption shall be reduced by an amount equal to the amount obtained by multiplying such principal installment amount as in effect prior to such partial redemption by a fraction of which the numerator shall be the aggregate principal amount of Securities redeemed pursuant to such partial redemption and the denominator shall be the aggregate unpaid outstanding principal balance of the Securities immediately prior to such partial redemption. Any such reduction shall be made on a pro rata basis, as nearly as practicable, among the Holders.

(c) The Issuer shall pay interest on overdue principal at the rate specified therefor in the Securities, and it shall pay interest on overdue installments of interest at the same rate borne by the Securities to the extent lawful.

SECTION 4.02. Reports and Other Information.

(a) Annual Financials. The Issuer shall deliver to the Trustee, as soon as available, but in any event within 120 days (or such earlier date on which the Issuer is required to file a Form 10-K under the Exchange Act, if applicable) after the end of each fiscal year of the Issuer, beginning with the fiscal year ending December 31, 2015, a consolidated balance sheet of the Issuer and its Subsidiaries as of the end of such fiscal year, and the related consolidated statements of income, cash flows and stockholders' equity for such fiscal year, setting forth in each case in comparative form the figures for the previous fiscal year, all prepared in accordance with GAAP, with such consolidated financial statements to be audited and accompanied by (i) a report and opinion of the Issuer's independent certified public accounting firm of recognized national standing (which report and opinion shall be prepared in accordance with GAAP), stating that such financial statements fairly present, in all material respects, the consolidated financial condition, results of operations and cash flows of the Issuer as of the dates and for the periods specified in accordance with GAAP, and (ii) (if and only if the Issuer is required to comply with the internal control provisions pursuant to Section 404 of the Sarbanes-Oxley Act of 2002 requiring an attestation report of such independent certified public accounting firm) an attestation report of such independent certified public accounting firm as to the Issuer's internal controls pursuant to Section 404 of the Sarbanes-Oxley Act of 2002 attesting that such internal controls meet the requirements of the Sarbanes-Oxley Act of 2002; *provided, however*, that the Issuer shall be deemed to have made such delivery of such consolidated financial statements if such consolidated financial statements shall have been made available for free within the time period specified above on the SEC's EDGAR system (or any successor system adopted by the SEC). Such consolidated financial statements shall be certified by a Financial Officer as, to his or her knowledge, fairly presenting, in all material respects, the consolidated financial condition, results of operations and cash flows of the Issuer and its Subsidiaries as of the dates and for the periods specified in accordance with GAAP consistently applied.

(b) Quarterly Financials. The Issuer shall deliver to the Trustee, as soon as available, but in any event within 60 days (or such earlier date on which the Issuer is required to file a Form 10-Q under the Exchange Act, if applicable) after the end of each of the first three fiscal quarters of each fiscal year of the Issuer, beginning with the fiscal quarter ending March 31, 2016, a consolidated balance sheet of the Issuer and its Subsidiaries as of the end of such fiscal quarter, and the related consolidated statements of income and cash flows and for such

fiscal quarter and (in respect of the second and third fiscal quarters of such fiscal year) for the then-elapsed portion of the Issuer's fiscal year, setting forth in each case in comparative form the figures for the comparable period or periods in the previous fiscal year, all prepared in accordance with GAAP; provided, however, that the Issuer shall be deemed to have made such delivery of such consolidated financial statements if such consolidated financial statements shall have been made available for free within the time period specified above on the SEC's EDGAR system (or any successor system adopted by the SEC). Such consolidated financial statements shall be certified by a Financial Officer as, to his or her knowledge, fairly presenting, in all material respects, the consolidated financial condition, results of operations and cash flows of the Issuer and its Subsidiaries as of the dates and for the periods specified in accordance with GAAP consistently applied, and on a basis consistent with the audited consolidated financial statements referred to under Section 4.02(a), subject to normal year-end audit adjustments and the absence of footnotes. Notwithstanding the foregoing, if the Issuer or any of its Subsidiaries have made an acquisition, the financial statements with respect to an acquired entity need not be included in the consolidated quarterly financial statements required to be delivered pursuant to this Section 4.02(b) until the first date upon which such quarterly financial statements are required to be so delivered that is at least 90 days after the date such acquisition is consummated.

(c) Compliance with Indenture. The Issuer shall deliver to the Trustee, within 120 days after the end of each fiscal year of the Issuer, commencing with respect to the fiscal year ending December 31, 2016, an Officers' Certificate certifying that to each such Officer's actual knowledge there is no Default or Event of Default that has occurred and is continuing or, if either such Officer does know of any such Default or Event of Default, such Officer shall include in such certificate a description of such Default or Event of Default and its status with particularity.

(d) Information During Event of Default. The Issuer shall deliver to the Trustee, promptly, such additional information regarding the business or financial affairs of the Issuer or any of its Subsidiaries, or compliance with the terms of this Indenture, as the Trustee, any Holder or any holder of beneficial interests in the Securities may from time to time reasonably request during the existence of any Event of Default (subject to reasonable requirements of confidentiality, including requirements imposed by law or contract; and provided that the Issuer shall not be obligated to disclose any information that is reasonably subject to the assertion of attorney-client privilege).

(e) Rule 144A Information. So long as the Issuer is not subject to either Section 13 or 15(d) of the Exchange Act, the Issuer shall deliver to the Holders, any holder of beneficial interests in the Securities and any prospective purchaser of the Securities or a beneficial interest therein designated by a Holder or such other Person, promptly upon the request of any such Person, the information required to be delivered pursuant to Rule 144A(d)(4) under the Securities Act.

(f) Communication of Information. Delivery of information under this Section 4.02 to the Trustee shall be for informational purposes only, and the Trustee's receipt thereof shall not constitute constructive notice of any information contained therein or determinable from any information contained therein, including compliance by the Issuer or any of its Subsidiaries with any of its covenants hereunder (as to which the Trustee is entitled to rely

exclusively on Officers' Certificates or certificates or statements delivered to the Trustee pursuant to Section 4.02(c)). Neither the Issuer nor the Guarantors shall be obligated to deliver any confidential reports or other confidential information to any Holder (or any holder of beneficial interests in the Securities) who has not executed a Confidentiality Agreement in accordance with the terms of this Indenture. The Issuer shall provide the Trustee with a list of such Holders (or holders of beneficial interests in the Securities) and shall update such list after the execution and delivery to the Issuer of a Confidentiality Agreement by any Person not already party to such a Confidentiality Agreement with the Issuer.

SECTION 4.03. Limitation on Incurrence of Indebtedness and Issuance of Disqualified Stock and Preferred Stock.

(a) (i) The Issuer shall not, and shall not permit any of its Restricted Subsidiaries to, directly or indirectly, Incur any Indebtedness (including Acquired Indebtedness) or issue any shares of Disqualified Stock; and (ii) the Issuer shall not permit any of its Restricted Subsidiaries (other than a Guarantor) to issue any shares of Preferred Stock; *provided, however*, that the Issuer and any Guarantor may Incur Indebtedness (including Acquired Indebtedness) or issue shares of Disqualified Stock, in each case if the Consolidated Leverage Ratio of the Issuer would have been less than or equal to 4.0 to 1.0 determined on a *pro forma* basis (including a *pro forma* application of the net proceeds therefrom), as if the additional Indebtedness had been Incurred, or the Disqualified Stock had been issued, as the case may be, and the application of proceeds therefrom had occurred at the beginning of the period for which the Consolidated Leverage Ratio calculation is being performed.

(b) The limitations set forth in Section 4.03(a) shall not apply to:

(i) the Incurrence by the Issuer or its Restricted Subsidiaries of Indebtedness under a Credit Agreement and the issuance and creation of letters of credit and bankers' acceptances thereunder (with letters of credit and bankers' acceptances being deemed to have a principal amount equal to the face amount thereof) in the aggregate principal amount outstanding at any one time not to exceed the sum of (x) \$25,000,000 plus (y) an aggregate additional principal amount, if any, of Indebtedness (for purposes of this clause (y) only, treating all Indebtedness then outstanding under this clause (i) together with such Indebtedness to be Incurred as Secured Indebtedness) that does not cause the Secured Indebtedness Leverage Ratio of the Issuer to exceed 3.5 to 1.0 determined on a *pro forma* basis (including a *pro forma* application of the net proceeds therefrom);

(ii) the Incurrence by any of the Issuer and the Guarantors of Indebtedness represented by the Securities and the Guarantees;

(iii) Indebtedness existing on the Issue Date (other than Indebtedness described in clauses (i) and (ii) of this Section 4.03(b));

(iv) Indebtedness (including Capitalized Lease Obligations) Incurred by the Issuer or any Restricted Subsidiary of the Issuer, and Disqualified Stock

issued by the Issuer or any Restricted Subsidiary of the Issuer, to finance (whether prior to or within 270 days after) the acquisition, lease, construction, repair, replacement or improvement of property (real or personal) or equipment (whether through the direct purchase of assets or the Capital Stock of any Person owning such assets) in an aggregate principal amount that, when aggregated with the principal amount of all other Indebtedness and Disqualified Stock then outstanding that was Incurred pursuant to this clause (iv), does not exceed \$10,000,000;

(v) Indebtedness Incurred by the Issuer or any of its Restricted Subsidiaries constituting reimbursement obligations with respect to letters of credit and bank guarantees issued in the ordinary course of business, including letters of credit in respect of workers' compensation claims, health, disability or other benefits to employees or former employees or their families or property, casualty or liability insurance or self-insurance, and letters of credit in connection with the maintenance of, or pursuant to the requirements of, environmental or other permits or licenses from Governmental Authorities, or other Indebtedness with respect to reimbursement type obligations regarding workers' compensation claims;

(vi) Indebtedness arising from agreements of the Issuer or a Restricted Subsidiary providing for indemnification, adjustment of purchase price or similar obligations, in each case, Incurred in connection with any acquisition or disposition of any business, any assets or a Subsidiary of the Issuer in accordance with the terms of this Indenture, other than guarantees of Indebtedness Incurred by any Person (other than the Issuer or a Restricted Subsidiary of the Issuer) acquiring all or any portion of such business, assets or Subsidiary for the purpose of financing such acquisition;

(vii) Indebtedness of the Issuer to a Restricted Subsidiary; *provided* that any such Indebtedness owed to a Restricted Subsidiary that is not a Guarantor is subordinated in right of payment to the obligations of the Issuer under the Securities; *provided, further*, that any subsequent issuance or transfer of any Capital Stock or any other event that results in any such Restricted Subsidiary ceasing to be a Restricted Subsidiary or any other subsequent transfer of any such Indebtedness (except to the Issuer or another Restricted Subsidiary or any pledge of such Indebtedness constituting a Permitted Lien) shall be deemed, in each case, to be an Incurrence of such Indebtedness not permitted by this clause (vii);

(viii) shares of Preferred Stock of a Restricted Subsidiary issued to the Issuer or a Guarantor; *provided* that any subsequent issuance or transfer of any Capital Stock or any other event that results in any Guarantor that holds such shares of Preferred Stock of a Restricted Subsidiary ceasing to be a Guarantor or any other subsequent transfer of any such shares of Preferred Stock (except to the Issuer or a Guarantor) shall be deemed, in each case, to be an issuance of shares of Preferred Stock not permitted by this clause (viii);

(ix) Indebtedness of a Restricted Subsidiary to the Issuer or another Restricted Subsidiary of the Issuer; *provided*, that if a Guarantor incurs such Indebtedness to a Restricted Subsidiary of the Issuer that is not a Guarantor, such Indebtedness is expressly subordinated in right of payment to the Guarantee of the Securities of such Guarantor; *provided, further*, that any subsequent issuance or transfer of any Capital Stock or any other event that results in any such Restricted Subsidiary of the Issuer holding such Indebtedness ceasing to be a Restricted Subsidiary or any other subsequent transfer of any such Indebtedness (except to the Issuer or another Restricted Subsidiary of the Issuer or any pledge of such Indebtedness constituting a Permitted Lien) shall be deemed, in each case, to be an Incurrence of such Indebtedness not permitted by this clause (ix);

(x) Hedging Obligations of the Issuer or any Restricted Subsidiary that are not incurred for speculative purposes but: (1) for the purpose of fixing or hedging interest rate risk with respect to any Indebtedness that is permitted by the terms of this Indenture to be outstanding; (2) for the purpose of fixing or hedging currency exchange rate risk with respect to any currency exchanges; or (3) for the purpose of fixing or hedging commodity price risk with respect to any commodity purchases or sales;

(xi) obligations (including reimbursement obligations with respect to letters of credit and bank guarantees) in respect of performance, bid, appeal and surety bonds and completion guarantees provided by the Issuer or any Restricted Subsidiary in the ordinary course of business or consistent with past practice or industry practice;

(xii) Indebtedness or Disqualified Stock of the Issuer or any Restricted Subsidiary of the Issuer not otherwise permitted under this Indenture in an aggregate principal amount or liquidation preference, which when aggregated with the principal amount or liquidation preference of all other Indebtedness and Disqualified Stock then outstanding and Incurred pursuant to this clause (xii), does not exceed \$20,000,000 at any one time outstanding (it being understood that any Indebtedness Incurred pursuant to this clause (xii) shall cease to be deemed Incurred or outstanding for purposes of this clause (xii) but shall be deemed Incurred for purposes of Section 4.03(a) from and after the first date on which the Issuer, or the Restricted Subsidiary of the Issuer, as the case may be, could have Incurred such Indebtedness under Section 4.03(a) without reliance upon this clause (xii));

(xiii) any guarantee by the Issuer or a Restricted Subsidiary of the Issuer of Indebtedness or other obligations of the Issuer or any other Restricted Subsidiary of the Issuer so long as the Incurrence of such Indebtedness Incurred by the Issuer or such other Restricted Subsidiary of the Issuer is permitted under the terms of this Indenture; *provided* that if such Indebtedness is by its express terms subordinated in right of payment to the Securities or the Guarantee of a Guarantor, as applicable, any such guarantee of such Guarantor with respect to such Indebtedness shall be subordinated in right of payment to such Guarantor's Guarantee with respect to the Securities substantially to the same extent as such Indebtedness is subordinated to the Securities or the Guarantee of such Guarantor, as applicable;

(xiv) the Incurrence by the Issuer or any Guarantor of Indebtedness or Disqualified Stock of a Guarantor that serves to refund, refinance or defease any Indebtedness Incurred or Disqualified Stock issued as permitted under Section 4.03(a) and clauses (ii), (iii), (iv), (xii), (xiv), (xv), (xix), (xxi), (xxiv) and (xxv) of this Section 4.03(b) or any Indebtedness or Disqualified Stock Incurred to so refund or refinance such Indebtedness or Disqualified Stock, including any additional Indebtedness or Disqualified Stock Incurred to pay premiums (including tender premiums), fees, expenses and defeasance costs in connection therewith (subject to the following proviso, "Refinancing Indebtedness") prior to its respective maturity; *provided* that such Refinancing Indebtedness:

(1) has a Weighted Average Life to Maturity at the time such Refinancing Indebtedness is Incurred that is not less than the shorter of (x) the remaining Weighted Average Life to Maturity of the Indebtedness or Disqualified Stock being refunded, refinanced or defeased and (y) the Weighted Average Life to Maturity that would result if all payments of principal on the Indebtedness and Disqualified Stock being refunded or refinanced that were due on or after the date that is one year following the last maturity date of any Securities then outstanding were instead due on such date;

(2) has a Stated Maturity that is not earlier than the earlier of (x) the Stated Maturity of the Indebtedness being refunded or refinanced or (y) 91 days following the Stated Maturity of the Securities;

(3) to the extent such Refinancing Indebtedness refunds, refinances or defeases (a) Indebtedness junior to the Securities or a Guarantee, as applicable, such Refinancing Indebtedness is junior to the Securities or a Guarantee, as applicable, or (b) Disqualified Stock, such Refinancing Indebtedness is Disqualified Stock;

(4) is Incurred in an aggregate amount (or if issued with original issue discount, an aggregate issue price) that is equal to or less than the aggregate amount (or if issued with original issue discount, the aggregate accreted value) then outstanding of the Indebtedness being refunded, refinanced or defeased plus premium (including tender premium), fees, expenses and defeasance costs Incurred in connection with such refinancing;

(5) shall not include Indebtedness of the Issuer or a Guarantor that refunds, refinances or defeases Indebtedness of an Unrestricted Subsidiary; and

(6) in the case of any Refinancing Indebtedness Incurred to refund, refinance or defease Indebtedness outstanding under clause (iv), (xii), (xix), (xxi), (xxiv) or (xxv) of this Section 4.03(b), shall be deemed to have been Incurred and

to be outstanding under such clause (iv), (xii), (xix), (xxi), (xxiv) or (xxv) of this Section 4.03(b), as applicable, and not this clause (xiv) for purposes of determining amounts outstanding under such clause (iv), (xii), (xix), (xxi), (xxiv) or (xxv) of this Section 4.03(b);

(xv) Indebtedness or Disqualified Stock of (x) the Issuer or any Guarantor incurred to finance an acquisition of any property or assets or (y) Persons that are acquired by the Issuer or any Guarantor or merged, consolidated or amalgamated with or into the Issuer or a Guarantor in accordance with the terms of this Indenture; *provided* that, in each case, after giving effect to such acquisition or merger, consolidation or amalgamation either:

(1) the Issuer would be permitted to Incur at least \$1.00 of additional Indebtedness pursuant to the Consolidated Leverage Ratio test set forth in Section 4.03(a); or

(2) the Consolidated Leverage Ratio would be less than immediately prior to such acquisition or merger, consolidation or amalgamation;

(xvi) Indebtedness Incurred by a Receivables Subsidiary in a Qualified Receivables Financing that is not recourse to the Issuer or any Restricted Subsidiary other than a Receivables Subsidiary (except for Standard Securitization Undertakings);

(xvii) Indebtedness arising from the honoring by a bank or other financial institution of a check, draft or similar instrument drawn against insufficient funds in the ordinary course of business; *provided* that such Indebtedness is extinguished within five Business Days of its Incurrence;

(xviii) Indebtedness of the Issuer or any Restricted Subsidiary supported by a letter of credit or bank guarantee issued pursuant to a Credit Agreement, in a principal amount not in excess of the stated amount of such letter of credit, to the extent such letter of credit or bank guarantee issued pursuant to such Credit Agreement is otherwise permitted by this Section 4.03;

(xix) Contribution Indebtedness;

(xx) Indebtedness of the Issuer or any Restricted Subsidiary consisting of (x) the financing of insurance premiums or (y) take-or-pay obligations contained in supply arrangements, in each case, in the ordinary course of business;

(xxi) Indebtedness of the Issuer or any Guarantor Incurred in connection with an Investment in, or representing guarantees of Indebtedness of, joint ventures of the Issuer or any Guarantor in an aggregate principal amount, at any one time outstanding, not to exceed \$1,000,000 at the time of Incurrence;

(xxii) Indebtedness of the Issuer or any Guarantor issued to (x) any joint venture (regardless of the form of legal entity) that is not a Subsidiary or (y) any Unrestricted Subsidiary, in each case arising in the ordinary course of business in connection with the cash management operations (including with respect to intercompany self-insurance arrangements) of the Issuer or any Guarantor;

(xxiii) the Incurrence by the Issuer or any Guarantor of Subordinated Indebtedness (excluding such Indebtedness convertible into the Capital Stock of the Issuer) with a Stated Maturity and, if applicable, a First Amortization Date no earlier than 91 days following the Stated Maturity of the Securities;

(xxiv) Indebtedness Incurred by the Issuer or any Restricted Subsidiary of the Issuer, whether prior to or within 270 days after the acquisition, construction, repair, replacement or improvement of real property or related fixtures and equipment, for the purpose of financing all or part of the purchase price thereof or cost of the construction, repair, replacement or improvement thereof, in each case after the Issue Date, in an aggregate principal amount that, when aggregated with the principal amount of all other Indebtedness then outstanding that was Incurred pursuant to this clause (xxiv), does not exceed \$25,000,000; and

(xxv) unsecured Indebtedness convertible into the Capital Stock of the Issuer with a Stated Maturity and, if applicable, a First Amortization Date no earlier than 91 days following the Stated Maturity of the Securities in an aggregate principal amount not to exceed \$200,000,000 at any one time outstanding (less the outstanding aggregate principal amount of any of the Convertible Notes (and any permitted refinancings of the Convertible Notes pursuant to Section 4.03(b)(xiv))).

For purposes of determining compliance with this Section 4.03:

(1) in the event that an item of Indebtedness or Disqualified Stock (or any portion thereof) meets the criteria of more than one of the categories of permitted Indebtedness described in clauses (i) through (xxv) of this Section 4.03(b) or is entitled to be Incurred pursuant to Section 4.03(a), the Issuer may, in its sole discretion, classify or reclassify, or later divide, classify or reclassify, such item of Indebtedness or Disqualified Stock (or any portion thereof) in any manner that complies with this Section 4.03; and

(2) at the time of Incurrence, the Issuer will be entitled to divide and classify an item of Indebtedness in more than one of the types of Indebtedness described in Sections 4.03(a) and clauses (i) through (xxv) of this Section 4.03(b) without giving *pro forma* effect to the Indebtedness Incurred pursuant to clauses (i) through (xxv) of this Section 4.03(b) when calculating the amount of Indebtedness that may be Incurred pursuant to Section 4.03(a).

Accrual of interest, the accretion of accreted value, the payment of interest in the form of additional Indebtedness with the same terms, the payment of dividends on Preferred

Stock in the form of additional shares of Preferred Stock of the same class, amortization or accretion of original issue discount or liquidation preference and increases in the amount of Indebtedness outstanding solely as a result of fluctuations in the exchange rate of currencies shall not be deemed to be an Incurrence of Indebtedness, Disqualified Stock or Preferred Stock for purposes of this Section 4.03. Guarantees of, or obligations in respect of letters of credit relating to, Indebtedness that is otherwise included in the determination of a particular amount of Indebtedness shall not be included in the determination of such amount of Indebtedness; provided that the Incurrence of the Indebtedness represented by such guarantee or letter of credit, as the case may be, was in compliance with this Section 4.03.

For purposes of determining compliance with any U.S. Dollar-denominated restriction on the Incurrence of Indebtedness, the U.S. Dollar-equivalent principal amount of Indebtedness denominated in a foreign currency shall be calculated based on the relevant currency exchange rate in effect on the date such Indebtedness was Incurred, in the case of term debt, or first committed or first Incurred (whichever yields the higher U.S. Dollar equivalent), in the case of revolving credit debt.

SECTION 4.04. Limitation on Restricted Payments.

(a) The Issuer shall not, and shall not permit any of its Restricted Subsidiaries to, directly or indirectly:

(i) declare or pay any dividend or make any distribution on account of the Issuer's or any of its Restricted Subsidiaries' Equity Interests, including any payment made in connection with any merger, amalgamation or consolidation involving the Issuer (other than (A) dividends or distributions by the Issuer payable solely in Equity Interests (other than Disqualified Stock) of the Issuer or (B) dividends or distributions by a Restricted Subsidiary, provided that, in the case of any dividend or distribution payable on or in respect of any class or series of securities issued by a Restricted Subsidiary other than a Wholly Owned Restricted Subsidiary, the Issuer or a Restricted Subsidiary receives at least its pro rata share of such dividend or distribution in accordance with its Equity Interests in such class or series of securities);

(ii) purchase or otherwise acquire or retire for value any Equity Interests (other than Disqualified Stock) of the Issuer or any direct or indirect parent of the Issuer;

(iii) purchase or otherwise acquire or retire for value any Disqualified Stock of the Issuer or any direct or indirect parent of the Issuer;

(iv) make any principal payment on, or redeem, repurchase, defease or otherwise acquire or retire for value, in each case prior to any scheduled repayment or scheduled maturity, any Subordinated Indebtedness of the Issuer or any of its Restricted Subsidiaries (other than the payment, redemption, repurchase, defeasance, acquisition or retirement of (A) Subordinated Indebtedness in anticipation of satisfying a sinking fund obligation, principal

installment or final maturity, in each case due within one year of the date of such payment, redemption, repurchase, defeasance, acquisition or retirement, unless such sinking fund obligation, principal installment or final maturity occurs within one year of the Stated Maturity of the Securities, and (B) Indebtedness permitted under clauses (vii) and (ix) of Section 4.03(b)); or

(v) make any Restricted Investment

(all such payments and other actions set forth in clauses (i) through (v) above being collectively referred to as “Restricted Payments”), unless, at the time of such Restricted Payment (other than a Restricted Payment under clause (iii) above, for which the following exception shall not be applicable):

(1) no Default shall have occurred and be continuing or would occur as a consequence thereof;

(2) immediately after giving effect to such transaction on a *pro forma* basis, the Issuer could Incur \$1.00 of additional Indebtedness under Section 4.03(a); and

(3) such Restricted Payment, together with the aggregate amount of all other Restricted Payments made by the Issuer and its Restricted Subsidiaries after the Issue Date (including Restricted Payments permitted by clauses (i), (iv), (v) (to the extent such dividends did not reduce Consolidated Net Income) and (xv) of Section 4.04(b), but excluding all other Restricted Payments permitted by Section 4.04(b)), is less than the amount equal to the Cumulative Credit (with the amount of any Restricted Payment made under this Section 4.04 in any property other than cash being equal to the Fair Market Value (as determined in good faith by the Issuer) of such property at the time made).

(b) The provisions of Section 4.04(a) shall not prohibit:

(i) the payment of any dividend or distribution within 60 days after the date of declaration thereof, if at the date of declaration such payment would have complied with the provisions of this Indenture;

(ii) (A) the redemption, repurchase, retirement or other acquisition of any Equity Interests (“Retired Capital Stock”) of the Issuer or any direct or indirect parent of the Issuer or Subordinated Indebtedness of the Issuer, any direct or indirect parent of the Issuer or any Guarantor in exchange for, or out of the proceeds of, the substantially concurrent sale of, Equity Interests of the Issuer or any direct or indirect parent of the Issuer or contributions to the equity capital of the Issuer (other than any Disqualified Stock or any Equity Interests sold to a Subsidiary of the Issuer or to an employee stock ownership plan or any trust established by the Issuer or any of its Subsidiaries) (collectively, including any such contributions, “Refunding Capital Stock”); and (B) the declaration and payment of accrued dividends on the Retired Capital Stock out of the proceeds of the substantially concurrent sale (other than to a Subsidiary of the Issuer or to an employee stock ownership plan or any trust established by the Issuer or any of its Subsidiaries) of Refunding Capital Stock;

(iii) the redemption, repurchase, defeasance or other acquisition or retirement of Subordinated Indebtedness of the Issuer or any Guarantor made by exchange for, or out of the proceeds of the substantially concurrent sale of, new Indebtedness of the Issuer or a Guarantor that is Incurred in accordance with Section 4.03 so long as:

(A) the principal amount (or accreted value, if applicable) of such new Indebtedness does not exceed the principal amount (or accreted value, if applicable), plus any accrued and unpaid interest, of the Subordinated Indebtedness being so redeemed, repurchased, acquired or retired for value (plus the amount of any premium required to be paid under the terms of the instrument governing the Subordinated Indebtedness being so redeemed, repurchased, acquired or retired, plus any tender premiums or any defeasance costs, fees and expenses incurred in connection therewith),

(B) such Indebtedness is subordinated to the Securities or the related Guarantee, as the case may be, at least to the same extent as such Subordinated Indebtedness so purchased, exchanged, redeemed, repurchased, defeased, acquired or retired for value,

(C) such Indebtedness has a Stated Maturity and, if applicable, a First Amortization Date equal to or later than the earlier of (x) the Stated Maturity of the Subordinated Indebtedness being so redeemed, repurchased, acquired or retired and (y) 91 days following the Stated Maturity of any Securities then outstanding, and

(D) such Indebtedness has a Weighted Average Life to Maturity at the time Incurred that is not less than the shorter of (x) the remaining Weighted Average Life to Maturity of the Subordinated Indebtedness being so redeemed, repurchased, defeased, acquired or retired and (y) the Weighted Average Life to Maturity that would result if all payments of principal on the Subordinated Indebtedness being redeemed, repurchased, acquired or retired that were due on or after the date that is one year following the last maturity date of any Securities then outstanding were instead due on such date one year following the last date of maturity of the Securities;

(iv) the repurchase, retirement or other acquisition (or dividends to any direct or indirect parent of the Issuer to finance any such repurchase, retirement or other acquisition) for value of Equity Interests of the Issuer or any direct or indirect parent of the Issuer held by any future, present or former employee, director or consultant of the Issuer or any direct or indirect parent of the Issuer or any Subsidiary of the Issuer pursuant to any management equity plan or stock option plan or any other management or employee benefit plan or other agreement or arrangement; *provided* that the aggregate amounts paid under this clause (iv) do not exceed \$1,000,000 in any calendar year (with unused amounts in any calendar year being permitted to be carried over for the two succeeding calendar years subject to a maximum payment (without giving effect to the following

proviso) of \$2,500,000 in any calendar year); *provided, further*, that such amount in any calendar year may be increased by an amount not to exceed:

(A) the cash proceeds received by the Issuer or any of its Restricted Subsidiaries from the sale of Equity Interests (other than Disqualified Stock) of the Issuer or any direct or indirect parent of the Issuer (to the extent contributed to the Issuer) to members of management, directors or consultants of the Issuer and its Restricted Subsidiaries or any direct or indirect parent of the Issuer that occurs after the Issue Date (*provided* that the amount of such cash proceeds utilized for any such repurchase, retirement, other acquisition or dividend shall not increase the amount available for Restricted Payments under clause (3) of Section 4.04(a)); plus

(B) the cash proceeds of key man life insurance policies received by the Issuer or any direct or indirect parent of the Issuer (to the extent contributed to the Issuer) or the Issuer's Restricted Subsidiaries after the Issue Date;

provided that the Issuer may elect to apply all or any portion of the aggregate increase contemplated by clauses (A) and (B) above in any one or more calendar years; and *provided, further*, that cancellation of Indebtedness owing to the Issuer or any Restricted Subsidiary from any present or former employees, directors, officers or consultants of the Issuer or any Restricted Subsidiary or the direct or indirect parent of the Issuer will not be deemed to constitute a Restricted Payment for purposes of this Section 4.04 or any other provision of this Indenture;

(v) the declaration and payment of dividends or distributions to holders of any class or series of Disqualified Stock of the Issuer or any of its Restricted Subsidiaries issued or incurred in accordance with Section 4.03;

(vi) the declaration and payment of dividends or distributions (a) to holders of any class or series of Designated Preferred Stock (other than Disqualified Stock) issued after the Issue Date and (b) to any direct or indirect parent of the Issuer, the proceeds of which will be used to fund the payment of dividends to holders of any class or series of Designated Preferred Stock (other than Disqualified Stock) of any direct or indirect parent of the Issuer issued after the Issue Date; *provided, however*, that, (A) after giving effect to such declaration (and the payment of dividends or distributions) on a *pro forma* basis, the Issuer would be able to incur at least \$1.00 of additional Indebtedness pursuant to the Consolidated Leverage Ratio test set forth in Section 4.03(a) and (B) the aggregate amount of dividends declared and paid pursuant to this clause (vi) does not exceed the net cash proceeds actually received by the Issuer from any such sale of Designated Preferred Stock (other than Disqualified Stock) issued after the Issue Date;

(vii) Investments in Unrestricted Subsidiaries having an aggregate Fair Market Value (as determined in good faith by the Issuer), taken together with all other Investments made pursuant to this clause (vii) that are at that time outstanding, not to exceed \$500,000 (with the Fair Market Value of each Investment being measured at the time made and without giving effect to subsequent changes in value);

(viii) payments or distributions to dissenting stockholders or equityholders pursuant to applicable law, pursuant to or in connection with a consolidation, amalgamation, merger or transfer of all or substantially all of the assets of the Issuer and the Restricted Subsidiaries, taken as a whole, that complies with Section 5.01, provided that as a result of such consolidation, amalgamation, merger or transfer of assets, the Issuer shall have made a Change of Control Offer (if required by this Indenture) and that all Securities tendered by Holders in connection with such Change of Control Offer have been repurchased, redeemed or acquired for value;

(ix) other Restricted Payments that are made with Excluded Contributions;

(x) other Restricted Payments in an aggregate amount not to exceed \$1,000,000;

(xi) the distribution, as a dividend or otherwise, of (i) shares of Capital Stock of, or (ii) Indebtedness owed to the Issuer or a Restricted Subsidiary of the Issuer by, Unrestricted Subsidiaries (other than Unrestricted Subsidiaries the primary assets of which are Cash Equivalents);

(xii) repurchases of Equity Interests deemed to occur upon exercise of stock options or warrants if such Equity Interests represent a portion of the exercise price of such options or warrants;

(xiii) purchases of receivables pursuant to a Receivables Repurchase Obligation in connection with a Qualified Receivables Financing and the payment or distribution of Receivables Fees;

(xiv) Restricted Payments by the Issuer or any Restricted Subsidiary to allow the payment of cash in lieu of the issuance of fractional shares upon the exercise of options or warrants or upon the conversion or exchange of Capital Stock of any such Person;

(xv) the repurchase, redemption or other acquisition or retirement for value of any Subordinated Indebtedness pursuant to the provisions similar to those described under Sections 4.06 and 4.08; *provided* that all Securities tendered by Holders in connection with a Change of Control Offer, Notes Collateral Asset Sale Offer or Asset Sale Offer, as applicable, have been repurchased, redeemed or acquired for value; and

(xvi) payments (whether in cash or shares of Capital Stock) on or in respect of the Convertible Notes or any other Indebtedness of the Issuer convertible into Capital Stock of the Issuer;

provided, that at the time of, and after giving effect to, any Restricted Payment permitted under clauses (vi), (vii), (x), (xi) and (xv) of this Section 4.04(b), no Default shall have occurred and be continuing or would occur as a consequence thereof.

(c) For purposes of designating any Restricted Subsidiary as an Unrestricted Subsidiary, all outstanding Investments by the Issuer and its Restricted Subsidiaries (except to the extent repaid) in the Subsidiary so designated shall be deemed to be Restricted Payments in an amount determined as set forth in the last sentence of the definition of "Investments". Such designation shall only be permitted if a Restricted Payment or Permitted Investment in such amount would be permitted at such time and if such Subsidiary otherwise meets the definition of an Unrestricted Subsidiary.

(d) For purposes of determining compliance with this Section 4.04, in the event that a Restricted Payment (or any portion thereof) meets the criteria of more than one of the categories described in Section 4.04(b) or is entitled to be made pursuant to Section 4.04(a), the Issuer may, in its sole discretion, classify or reclassify, or later divide, classify or reclassify, such Restricted Payment (or any portion thereof) in any manner that complies with this Section 4.04.

SECTION 4.05. Dividend and Other Payment Restrictions Affecting Subsidiaries. The Issuer shall not, and shall not permit any of its Restricted Subsidiaries to, directly or indirectly, create or otherwise cause or suffer to exist or become effective any consensual encumbrance or consensual restriction on the ability of any Restricted Subsidiary to:

(a) (i) pay dividends or make any other distributions to the Issuer or any of its Restricted Subsidiaries (1) on its Capital Stock or (2) with respect to any other interest or participation in, or measured by, its profits or (ii) pay any Indebtedness owed to the Issuer or any of its Restricted Subsidiaries;

(b) make loans or advances to the Issuer or any of its Restricted Subsidiaries; or

(c) sell, lease or transfer any of its properties or assets to the Issuer or any of its Restricted Subsidiaries,

except in each case for such encumbrances or restrictions existing under or by reason of:

(1) contractual encumbrances or restrictions in effect on the Issue Date;

(2) this Indenture, the Guarantees, the Securities, the Security Documents or the Intercreditor Agreements;

(3) applicable law or any applicable rule, regulation or order;

(4) any agreement or other instrument relating to Indebtedness of a Person acquired by the Issuer or any Restricted Subsidiary that was in existence at the time of such acquisition (but not created in contemplation thereof or to provide all or any portion

of the funds or credit support utilized to consummate such acquisition), which encumbrance or restriction is not applicable to any Person, or the properties or assets of any Person, other than the Person, or the property or assets of the Person, so acquired;

(5) contracts or agreements for the sale of assets, including any restriction with respect to a Restricted Subsidiary imposed pursuant to an agreement entered into for the sale or disposition of the Capital Stock or assets of such Restricted Subsidiary pending the closing of such sale or disposition;

(6) Secured Indebtedness otherwise permitted to be Incurred pursuant to Sections 4.03 and 4.11;

(7) restrictions on cash or other deposits or net worth imposed by customers under contracts entered into in the ordinary course of business;

(8) customary provisions in joint venture agreements, collaboration agreements, intellectual property licenses and other similar agreements entered into in the ordinary course of business;

(9) (a) purchase money obligations for property acquired and Capitalized Lease Obligations in the ordinary course of business and (b) agreements relating to Sale/Leaseback Transactions;

(10) customary provisions contained in leases, licenses and other similar agreements entered into in the ordinary course of business;

(11) any encumbrance or restriction of a Receivables Subsidiary effected in connection with a Qualified Receivables Financing; *provided* that such restrictions apply only to such Receivables Subsidiary;

(12) other Indebtedness, Disqualified Stock or Preferred Stock (a) of the Issuer or any Restricted Subsidiary of the Issuer that is a Guarantor or (b) of any Restricted Subsidiary that is not a Guarantor so long as, in the case of clause (b), such encumbrances and restrictions contained in any agreement or instrument will not materially affect the Issuer's ability to make anticipated principal or interest payments on the Securities (as determined in good faith by the Issuer), provided that in the case of each of clauses (a) and (b), such Indebtedness, Disqualified Stock or Preferred Stock is permitted to be Incurred subsequent to the Issue Date under Section 4.03;

(13) any Restricted Investment not prohibited by Section 4.04 and any Permitted Investment;

(14) other encumbrances or restrictions, not relating to Indebtedness, so long as such encumbrances and restrictions contained in any agreement or instrument will not materially affect the Issuer's ability to make anticipated principal or interest payments on the Securities (as determined in good faith by the Issuer); or

(15) any encumbrances or restrictions of the type referred to in clauses (a), (b) and (c) above imposed by any amendments, modifications, restatements, renewals, increases, supplements, refundings, replacements or refinancings of the contracts, instruments or obligations referred to in clauses (1) through (14) above; *provided* that such amendments, modifications, restatements, renewals, increases, supplements, refundings, replacements or refinancings are, in the good faith judgment of the Issuer, no more restrictive with respect to such dividend and other payment restrictions than those contained in the dividend or other payment restrictions prior to such amendment, modification, restatement, renewal, increase, supplement, refunding, replacement or refinancing.

For purposes of determining compliance with this Section 4.05, (i) the priority of any Preferred Stock in receiving dividends or liquidating distributions prior to dividends or liquidating distributions being paid on other Capital Stock shall not be deemed a restriction on the ability to make distributions on Capital Stock and (ii) the subordination of loans or advances made to the Issuer or a Restricted Subsidiary of the Issuer to other Indebtedness Incurred by the Issuer or any such Restricted Subsidiary shall not be deemed a restriction on the ability to make loans or advances.

SECTION 4.06. Asset Sales and MM-398 Excess US License Proceeds.

(a) The Issuer shall not, and shall not permit any of its Restricted Subsidiaries to, cause or make an Asset Sale, unless (x) the Issuer or any of its Restricted Subsidiaries, as the case may be, receives consideration at the time of such Asset Sale at least equal to the Fair Market Value (as determined in good faith by the Issuer) of the assets sold or otherwise disposed of, and (y) at least 75% of the consideration therefor received by the Issuer or such Restricted Subsidiary, as the case may be, is in the form of Cash Equivalents; *provided* that the amount of:

(i) any liabilities (as shown on the Issuer's or such Restricted Subsidiary's most recent balance sheet or in the notes thereto) of the Issuer or any Restricted Subsidiary of the Issuer (other than liabilities that are by their terms subordinated to the Securities or any Guarantee) that are assumed by the transferee of any such assets or that are otherwise cancelled or terminated in connection with the transaction with such transferee,

(ii) any notes or other obligations or other securities or assets received by the Issuer or such Restricted Subsidiary of the Issuer from such transferee that are converted by the Issuer or such Restricted Subsidiary of the Issuer into cash within 180 days of the receipt thereof (to the extent of the cash received), and

(iii) any Designated Non-cash Consideration received by the Issuer or any of its Restricted Subsidiaries in such Asset Sale having an aggregate Fair Market Value (as determined in good faith by the Issuer), taken together with all other Designated Non-cash Consideration received pursuant to this clause (iii) that is at that time outstanding, not to exceed \$1,000,000 (with the Fair Market Value of each item of Designated Non-cash Consideration being measured at the time received and without giving effect to subsequent changes in value) shall be deemed to be Cash Equivalents for the purposes of this Section 4.06(a).

(b) Within 365 days after the Issuer's or any Restricted Subsidiary of the Issuer's receipt of the Net Proceeds of any Asset Sale, the Issuer or such Restricted Subsidiary of the Issuer may apply the Net Proceeds from such Asset Sale, at its option:

(i) (A) if the subject assets constitute ABL Collateral that secures First Priority Lien Obligations, to repay Indebtedness constituting First Priority Lien Obligations, including Secured Bank Indebtedness (and, if the Indebtedness repaid is revolving credit Secured Bank Indebtedness, to correspondingly reduce commitments with respect thereto) or (B) if the subject assets constitute ABL Collateral that secures First Priority Lien Obligations or if the subject assets constitute Excluded Assets, to repay (x) Indebtedness of a Restricted Subsidiary that is not a Guarantor or (y) Pari Passu Indebtedness (*provided* that if the Issuer or any Guarantor shall so reduce Obligations under Pari Passu Indebtedness, the Issuer shall equally and ratably reduce Obligations under the Securities as provided under the optional redemption provisions of Paragraph 5 of the Security, through open-market purchases (provided that such purchases are at or above 100% of the principal amount thereof) or by making an offer (in accordance with the procedures set forth below for an Asset Sale Offer) to all Holders to purchase at a purchase price equal to 100% of the principal amount thereof, plus accrued and unpaid interest, the pro rata principal amount of Securities, in each case other than Indebtedness owed to the Issuer or an Affiliate of the Issuer), or

(ii) except with respect to the Net Proceeds of an MM-398 Intellectual Property Sale and, for the avoidance of doubt, the cash proceeds of an MM-398 Intellectual Property License (which Net Proceeds or cash proceeds, for the avoidance of doubt, will be applied pursuant to the penultimate paragraph of this Section 4.06(b) without regard to such 365-day period), to make an Investment in any one or more businesses (*provided* that if such Investment is in the form of the acquisition of Capital Stock of a Person, such acquisition results in such Person becoming a Restricted Subsidiary of the Issuer or, if such Person is a partially-owned Restricted Subsidiary of the Issuer, in an increase in the percentage ownership of such Person by the Issuer or any Restricted Subsidiary of the Issuer), assets, or property or capital expenditures, in each case (A) used or useful in a Similar Business or (B) that replace the properties and assets that are the subject of such Asset Sale, including the license or acquisition of Intellectual Property or other rights in respect of technologies, drug candidates, drugs and assets related or incidental thereto and research and development expenditures that in the Issuer's judgment are useful with respect to the Issuer's business or a Similar Business.

In the case of Section 4.06(b)(ii), a binding commitment shall be treated as a permitted application of the Net Proceeds from the date of such commitment; *provided* that in the event such binding commitment is later canceled or terminated for any reason before such Net Proceeds are so applied, the Issuer or such Restricted Subsidiary enters into another binding commitment (a "Second Commitment") within nine months of such cancellation or termination

of the prior binding commitment; *provided, further*, that the Issuer or such Restricted Subsidiary may only enter into a Second Commitment under the foregoing provision one time with respect to each Asset Sale. Pending the final application of any such Net Proceeds, the Issuer or such Restricted Subsidiary of the Issuer may temporarily reduce Indebtedness under a revolving credit facility, if any, or otherwise invest such Net Proceeds in any manner not prohibited by this Indenture.

Any (i) Net Proceeds from any Asset Sale of Notes Collateral (other than ABL Collateral to the extent it secures First Priority Lien Obligations) that are not applied as provided and within the time period set forth in clause (b) of this Section 4.06 (including the Net Proceeds of an MM-398 Intellectual Property Sale) (it being understood that any portion of such Net Proceeds used to make an offer to purchase Securities, as described in clause (i) of this Section 4.06(b), shall be deemed to have been invested whether or not such offer is accepted) or (ii) MM-398 Excess US License Proceeds shall be deemed to constitute "Notes Collateral Excess Proceeds". When the aggregate amount of Notes Collateral Excess Proceeds exceeds \$10,000,000, the Issuer shall make an offer to all Holders of Securities (and, at the option of the Issuer, to holders of any Pari Passu Indebtedness) (a "Notes Collateral Asset Sale Offer") to purchase the maximum principal amount of Securities (and such Pari Passu Indebtedness) that is at least \$1,000 and an integral multiple of \$1,000 that may be purchased out of the Notes Collateral Excess Proceeds at an offer price in cash in an amount equal to 100% of the principal balance thereof (or, in the event such Pari Passu Indebtedness was issued with significant original issue discount, 100% of the accreted value thereof), plus accrued and unpaid interest (or, in respect of such Pari Passu Indebtedness, such lesser price, if any, as may be provided for by the terms of such Pari Passu Indebtedness), to the date fixed for the closing of such offer, in accordance with the procedures set forth in this Section 4.06. The Issuer shall commence a Notes Collateral Asset Sale Offer with respect to Notes Collateral Excess Proceeds within ten Business Days after the date that Notes Collateral Excess Proceeds exceed \$10,000,000 by providing the written notice required pursuant to Section 4.06(f), with a copy to the Trustee. To the extent that the aggregate amount of Securities (and such Pari Passu Indebtedness) tendered pursuant to a Notes Collateral Asset Sale Offer is less than the Notes Collateral Excess Proceeds, the Issuer may use any remaining Notes Collateral Excess Proceeds for any purpose that is not prohibited by this Indenture. If the aggregate principal amount of Securities (and such Pari Passu Indebtedness) surrendered by Holders thereof exceeds the amount of Notes Collateral Excess Proceeds, the Trustee shall select the Securities to be purchased in the manner described in Section 4.06(e). Upon completion of any such Notes Collateral Asset Sale Offer, the amount of Notes Collateral Excess Proceeds shall be reset at zero.

Any Net Proceeds from any Asset Sale of Excluded Assets or ABL Collateral that secures First Priority Lien Obligations that are not applied as provided and within the time period set forth in clause (b) of this Section 4.06 (it being understood that any portion of such Net Proceeds used to make an offer to purchase Securities, as described in clause (i) of this Section 4.06(b), shall be deemed to have been invested whether or not such offer is accepted) will be deemed to constitute "Excess Proceeds". When the aggregate amount of Excess Proceeds exceeds \$10,000,000, the Issuer shall make an offer to all Holders of Securities (and, at the option of the Issuer, to holders of any Pari Passu Indebtedness) (an "Asset Sale Offer") to purchase the maximum principal amount of Securities (and such Pari Passu Indebtedness) that is at least \$1,000 and an integral multiple of \$1,000 that may be purchased out of the Excess

Proceeds at an offer price in cash in an amount equal to 100% of the principal balance thereof (or, in the event such Pari Passu Indebtedness was issued with significant original issue discount, 100% of the accreted value thereof), plus accrued and unpaid interest (or, in respect of such Pari Passu Indebtedness, such lesser price, if any, as may be provided for by the terms of such Pari Passu Indebtedness), to the date fixed for the closing of such offer, in accordance with the procedures set forth in this Section 4.06. The Issuer will commence an Asset Sale Offer with respect to Excess Proceeds within ten Business Days after the date that Excess Proceeds exceed \$10,000,000 by providing the written notice required pursuant to Section 4.06(f), with a copy to the Trustee. To the extent that the aggregate amount of Securities (and such Pari Passu Indebtedness) tendered pursuant to an Asset Sale Offer is less than the Excess Proceeds, the Issuer may use any remaining Excess Proceeds for any purpose that is not prohibited by this Indenture. If the aggregate principal amount of Securities (and such Pari Passu Indebtedness) surrendered by Holders thereof exceeds the amount of Excess Proceeds, the Trustee shall select the Securities to be purchased in the manner described in Section 4.06(e). Upon completion of any such Asset Sale Offer, the amount of Excess Proceeds shall be reset at zero.

(c) The Issuer shall comply with the requirements of Rule 14e-1 under the Exchange Act and any other securities laws and regulations to the extent such laws or regulations are applicable in connection with the repurchase of the Securities pursuant to a Notes Collateral Asset Sale Offer or an Asset Sale Offer. To the extent that the provisions of any securities laws or regulations conflict with the provisions of this Indenture, the Issuer shall comply with the applicable securities laws and regulations and shall not be deemed to have breached its obligations described in this Indenture by virtue thereof.

(d) Not later than the date upon which written notice of a Notes Collateral Asset Sale Offer or an Asset Sale Offer, as the case may be, is delivered to the Trustee as provided above, the Issuer shall deliver to the Trustee an Officers' Certificate as to (i) the amount of the Notes Collateral Excess Proceeds or the Excess Proceeds, as the case may be, (ii) the application of the Net Proceeds from the Asset Sales pursuant to which such Notes Collateral Asset Sale Offer or Asset Sale Offer, as the case may be, is being made and (iii) the compliance of such application with the provisions of Section 4.06(b). On the specified date of purchase, the Issuer shall also irrevocably deposit with the Trustee or with a Paying Agent (or, if the Issuer or a domestically organized Wholly Owned Restricted Subsidiary is acting as the Paying Agent, segregate and hold in trust) an amount equal to the Notes Collateral Excess Proceeds or the Excess Proceeds, as the case may be, to be invested in Cash Equivalents, as directed in writing by the Issuer, and to be held for payment in accordance with the provisions of this Section 4.06. Upon the expiration of the period for which the Notes Collateral Asset Sale Offer or Asset Sale Offer, as the case may be, remains open (the "Offer Period"), the Issuer shall deliver to the Trustee for cancellation the Securities or portions thereof that have been properly tendered to and are to be accepted by the Issuer, along with a written payment and cancellation order. The Trustee (or the Paying Agent, if not the Trustee) shall, on the date of purchase, mail or deliver payment to each tendering Holder in the amount of the purchase price as determined by the Issuer and stated in the written payment and cancellation order. In the event that the Notes Collateral Excess Proceeds or Excess Proceeds, as the case may be, delivered by the Issuer to the Trustee are greater than the purchase price of the Securities tendered, the Trustee shall deliver the excess to the Issuer immediately after the expiration of the Offer Period for application in accordance with Section 4.06.

(e) Holders electing to have a Security purchased shall be required to surrender the Security, with an appropriate form duly completed, to the Issuer at the address specified in the notice at least three Business Days prior to the purchase date. Holders shall be entitled to withdraw their election if the Trustee or the Issuer receives not later than one Business Day prior to the purchase date a telegram, telex, facsimile transmission or letter setting forth the name of the Holder, the principal amount of the Security that was delivered by the Holder for purchase and a statement that such Holder is withdrawing such Holder's election to have such Security purchased. If at the end of the Offer Period more Securities (and such Pari Passu Indebtedness, as applicable) are tendered pursuant to a Notes Collateral Asset Sale Offer or an Asset Sale Offer, as the case may be, than the Issuer is required to purchase, and if the Securities are Global Securities held by the Depository, the Depository will select the Securities to be redeemed in accordance with its operational arrangements. If the Securities are not Global Securities held by the Depository, selection of such Securities for purchase shall be made by the Trustee on a pro rata basis, by lot or by such other method as the Trustee shall deem fair and appropriate (and in such manner as complies with applicable legal requirements); *provided* that no Securities of \$1,000 or less shall be purchased in part. Selection of such Pari Passu Indebtedness, as applicable, shall be made pursuant to the terms of such Pari Passu Indebtedness; *provided* that any purchase by the Issuer of Pari Passu Indebtedness and Securities tendered pursuant to a Notes Collateral Asset Sale Offer or an Asset Sale Offer shall otherwise be made on a pro rata basis, as nearly as practicable.

(f) Written notices of a Notes Collateral Asset Sale Offer or an Asset Sale Offer shall be provided at least 30 but not more than 60 days before the purchase date to each Holder of Securities at such Holder's registered address. If any Security is to be purchased in part only, any notice of purchase that relates to such Security shall state the portion of the principal amount thereof that has been or is to be purchased. Holders whose Securities are purchased only in part shall be issued new Securities equal in principal amount to the unpurchased portion of the Securities surrendered. If the Securities are Global Securities held by the Depository, then the applicable operational procedures of the Depository for tendering and withdrawing securities will apply.

SECTION 4.07. Transactions with Affiliates.

(a) The Issuer shall not, and shall not permit any of its Restricted Subsidiaries to, directly or indirectly, make any payment to, or sell, lease, transfer or otherwise dispose of any of its properties or assets to, or purchase any property or assets from, or enter into or make or amend any transaction or series of transactions, contract, agreement, understanding, loan, advance or guarantee with, or for the benefit of, any Affiliate of the Issuer (each of the foregoing, an "Affiliate Transaction") involving aggregate consideration in excess of \$1,000,000, unless:

(i) such Affiliate Transaction is on terms that are not materially less favorable to the Issuer or the relevant Restricted Subsidiary than those that could have been obtained in a comparable transaction by the Issuer or such Restricted Subsidiary with an unrelated Person; and

(ii) with respect to any Affiliate Transaction or series of related Affiliate Transactions involving aggregate consideration in excess of \$2,500,000,

the Issuer delivers to the Trustee a resolution adopted in good faith by the majority of the Board of Directors of the Issuer, approving such Affiliate Transaction and set forth in an Officers' Certificate certifying that such Affiliate Transaction complies with clause (i) above.

(b) The provisions of Section 4.07(a) shall not apply to the following:

(i) (A) any transaction or series of transactions between or among any of the Issuer and its Restricted Subsidiaries (or an entity that becomes a Restricted Subsidiary as a result of such transaction), including any payment to, or sale, lease, transfer or other disposition of any properties or assets to, or purchase of any property or assets from, or any contract, agreement, amendment, understanding, loan, advance or guarantee with, or for the benefit of, any of the Issuer and its Restricted Subsidiaries (or an entity that becomes a Restricted Subsidiary as a result of such transaction) and (B) any merger, consolidation or amalgamation of the Issuer and any direct parent of the Issuer; *provided* that such parent shall have no material liabilities and no material assets other than cash, Cash Equivalents and the Capital Stock of the Issuer and such merger, consolidation or amalgamation is otherwise in compliance with the terms of this Indenture and effected for a bona fide business purpose;

(ii) Restricted Payments permitted by Section 4.04 and Permitted Investments (without giving effect to clause (13) of the definition of "Permitted Investments");

(iii) the payment of reasonable and customary compensation, benefits, fees and reimbursement of expenses paid to, and indemnity, contribution and insurance provided on behalf of, officers, directors, employees or consultants of the Issuer or any Restricted Subsidiary;

(iv) transactions in which the Issuer or any of its Restricted Subsidiaries, as the case may be, delivers to the Trustee a letter from an Independent Financial Advisor stating that such transaction is fair to the Issuer or such Restricted Subsidiary from a financial point of view or meets the requirements of Section 4.07(a)(i);

(v) payments or loans (or cancellation of loans) to officers, directors, employees or consultants of the Issuer or any of the Restricted Subsidiaries of the Issuer and employment agreements, stock option plans and other similar arrangements with such officers, directors, employees or consultants that, in each case, are approved by a majority of the disinterested members of the Board of Directors of the Issuer in good faith;

(vi) any agreement as in effect as of the Issue Date or any amendment thereto (so long as any such agreement together with all amendments thereto, taken as a whole, is not more disadvantageous to the Holders of the Securities in any material respect than the original agreement as in effect on the Issue Date) or any transaction contemplated thereby as determined in good faith by the Issuer;

(vii) the existence of, or the performance by the Issuer or any of its Restricted Subsidiaries of its obligations under the terms of, any stockholders or equityholders agreement (including any registration rights agreement or purchase agreement related thereto) to which it is a party as of the Issue Date and any amendment thereto or similar transactions, agreements or arrangements that it may enter into thereafter; *provided* that the existence of, or the performance by the Issuer or any of its Restricted Subsidiaries of its obligations under, any future amendment to any such existing transaction, agreement or arrangement or under any similar transaction, agreement or arrangement entered into after the Issue Date shall only be permitted by this clause (vii) to the extent that the terms of any such existing transaction, agreement or arrangement together with all amendments thereto, taken as a whole, or new transaction, agreement or arrangement are not otherwise more disadvantageous to the Holders of the Securities in any material respect than the original transaction, agreement or arrangement as in effect on the Issue Date;

(viii) (A) transactions with customers, clients, suppliers or purchasers or sellers of goods or services, or transactions otherwise relating to the purchase or sale of goods or services, in each case in the ordinary course of business and otherwise in compliance with the terms of this Indenture, which are fair to the Issuer and its Restricted Subsidiaries in the reasonable determination of the Board of Directors or the senior management of the Issuer, or are on terms at least as favorable as might reasonably have been obtained at such time from an unaffiliated party or (B) transactions with joint ventures or Unrestricted Subsidiaries;

(ix) any transaction effected as part of a Qualified Receivables Financing;

(x) the issuance of Equity Interests (other than Disqualified Stock) of the Issuer to any Person;

(xi) the issuances of securities or other payments, awards or grants in cash, securities or otherwise pursuant to, or the funding of, employment arrangements, stock option and stock ownership plans or similar employee or director benefit plans approved by the Board of Directors of the Issuer or any direct or indirect parent of the Issuer or of a Restricted Subsidiary of the Issuer, as appropriate, in good faith;

(xii) any contribution to the capital of the Issuer;

(xiii) transactions permitted by, and complying with, Section 5.01;

(xiv) transactions between the Issuer or any of its Restricted Subsidiaries and any Person, a director of which is also a director of the Issuer or any direct or

indirect parent of the Issuer; *provided, however*, that such director abstains from voting as a director of the Issuer or such direct or indirect parent, as the case may be, on any matter involving such other Person;

(xv) pledges of Equity Interests of Unrestricted Subsidiaries;

(xvi) intercompany transactions undertaken in good faith (as certified by the Issuer in an Officers' Certificate) for the purpose of improving the consolidated tax efficiency of the Issuer and its Subsidiaries and not for the purpose of circumventing compliance with any covenant set forth in this Indenture; and

(xvii) the formation and maintenance of any consolidated group or subgroup for tax, accounting or cash pooling or management purposes in the ordinary course of business.

SECTION 4.08. Change of Control.

(a) Upon a Change of Control, each Holder shall have the right to require the Issuer to repurchase all or any part of such Holder's Securities at a purchase price in cash equal to 101% of the principal balance thereof, plus accrued and unpaid interest, if any, to the date of repurchase (subject to the right of the Holders of record on the relevant Record Date to receive interest due on the related Payment Date), in accordance with the terms contemplated in this Section 4.08; *provided, however*, that notwithstanding the occurrence of a Change of Control, the Issuer shall not be obligated to repurchase any Securities pursuant to this Section 4.08 in the event that it has exercised its (i) unconditional right to redeem such Securities in accordance with Article 3 or (ii) legal defeasance option or covenant defeasance option in accordance with Article 8.

(b) Within 30 days following any Change of Control, except to the extent that the Issuer has exercised its (x) unconditional right to redeem the Securities by delivery of a notice of redemption in accordance with Article 3 or (y) legal defeasance option or covenant defeasance option in accordance with Article 8, the Issuer shall provide a written notice (a "Change of Control Offer") to each Holder with a copy to the Trustee stating:

(i) that a Change of Control has occurred and that such Holder has the right to require the Issuer to repurchase such Holder's Securities at a repurchase price in cash equal to 101% of the principal balance thereof, plus accrued and unpaid interest, if any, to the date of repurchase (subject to the right of the Holders of record on the relevant Record Date to receive interest on the related Payment Date);

(ii) the circumstances and relevant facts and financial information regarding such Change of Control;

(iii) the repurchase date (which shall be no earlier than 30 days nor later than 60 days from the date such written notice is provided); and

(iv) the instructions determined by the Issuer, consistent with this Section 4.08, that a Holder must follow in order to have its Securities repurchased.

(c) Holders electing to have a Security repurchased shall be required to surrender the Security, with an appropriate form duly completed, to the Issuer at the address specified in the notice at least three Business Days prior to the repurchase date. The Holders shall be entitled to withdraw their election if the Issuer receives not later than one Business Day prior to the repurchase date a telegram, telex, facsimile transmission or letter setting forth the name of the Holder, the principal amount of the Security that was delivered for purchase by the Holder and a statement that such Holder is withdrawing its election to have such Security repurchased. Holders whose Securities are repurchased only in part shall be issued new Securities equal in principal amount to the unpurchased portion of the Securities surrendered. If the Securities are Global Securities held by the Depository, then the applicable operational procedures of the Depository for tendering and withdrawing securities will apply.

(d) On the repurchase date, all Securities repurchased by the Issuer under this Section 4.08 shall be delivered to the Trustee for cancellation, and the Issuer shall pay the purchase price plus accrued and unpaid interest to the Holders entitled thereto.

(e) A Change of Control Offer may be made in advance of a Change of Control, and conditioned upon such Change of Control, if a definitive agreement is in place for the Change of Control at the time of making of the Change of Control Offer.

(f) Notwithstanding the foregoing provisions of this Section 4.08, the Issuer shall not be required to make a Change of Control Offer upon a Change of Control if a third party makes the Change of Control Offer in the manner, at the times and otherwise in compliance with the requirements set forth in this Section 4.08 applicable to a Change of Control Offer made by the Issuer and purchases all Securities validly tendered and not withdrawn under such Change of Control Offer.

(g) Securities repurchased by the Issuer pursuant to a Change of Control Offer will have the status of Securities issued but not outstanding or will be retired and canceled at the option of the Issuer. Securities purchased by a third party pursuant to Section 4.08(f) will have the status of Securities issued and outstanding.

(h) At the time the Issuer delivers Securities to the Trustee that are to be accepted for repurchase, the Issuer shall also deliver an Officers' Certificate stating that such Securities are to be accepted by the Issuer pursuant to and in accordance with the terms of this Section 4.08 and confirming whether the Securities will be considered issued but not outstanding, or include orders to cancel the repurchased Securities. A Security shall be deemed to have been accepted for repurchase at the time the Trustee, directly or through an agent, provides payment therefor to the surrendering Holder.

(i) Prior to providing written notice to the Holders of any Change of Control Offer, the Issuer shall deliver to the Trustee an Officers' Certificate and an Opinion of Counsel stating that all conditions precedent contained herein to the right of the Issuer to make such offer have been complied with.

(j) The Issuer shall comply, to the extent applicable, with the requirements of Section 14(e) of the Exchange Act and any other securities laws or regulations in connection with the repurchase of Securities pursuant to this Section 4.08. To the extent that the provisions of any securities laws or regulations conflict with provisions of this Section 4.08, the Issuer shall comply with the applicable securities laws and regulations and shall not be deemed to have breached its obligations under this Section 4.08 by virtue thereof.

SECTION 4.09. Further Instruments and Acts. The Issuer shall execute and deliver such further instruments and do such further acts as may be reasonably necessary or proper to carry out more effectively the purpose of this Indenture.

SECTION 4.10. Future Guarantors. The Issuer shall cause each Wholly Owned Restricted Subsidiary (unless such Subsidiary is a Receivables Subsidiary), within 10 Business Days of becoming a Restricted Subsidiary, to execute and deliver to the Trustee a supplemental indenture substantially in the form of Exhibit B pursuant to which such Subsidiary shall guarantee the Issuer's Obligations under the Securities and this Indenture; *provided, however*, that no Foreign Subsidiary shall be required to become a Guarantor. Notwithstanding the foregoing, the Issuer's Wholly Owned Restricted Subsidiary, Crane Therapeutics, Inc., shall not be required to become a Guarantor unless and until the Fair Market Value of such Subsidiary or such Subsidiary's assets exceeds \$500,000 and it remains a Wholly Owned Restricted Subsidiary.

SECTION 4.11. Liens. The Issuer shall not, and shall not permit any of its Restricted Subsidiaries to, directly or indirectly, create, incur or suffer to exist (a) any Lien (except Permitted Liens) on any asset or property of the Issuer or such Restricted Subsidiary securing Indebtedness or (b) any Lien on ABL Collateral securing any First Priority Lien Obligation of the Issuer or any Guarantor without effectively providing that the Securities or the applicable Guarantee, as the case may be, shall be granted a second priority security interest (subject to Permitted Liens) upon the assets or property constituting the ABL Collateral for such First Priority Lien Obligations; *provided, however*, that no such second priority security interest upon the Lockbox Account constituting ABL Collateral shall be required.

For purposes of determining compliance with this Section 4.11, in the event that a Lien securing an item of Indebtedness (or any portion thereof) meets the criteria of more than one of the categories of Liens described in the foregoing paragraph or in clauses (1) through (32) of the definition of "Permitted Liens", then the Issuer shall, in its sole discretion, classify or reclassify, or later divide, classify or reclassify, such Lien securing an item of Indebtedness (or any portion thereof) in any manner that complies with this Section 4.11.

With respect to any Lien securing Indebtedness that was permitted to secure such Indebtedness at the time of the Incurrence of such Indebtedness, such Lien shall also be permitted to secure any Increased Amount of such Indebtedness. The "Increased Amount" of any Indebtedness shall mean any increase in the amount of such Indebtedness in connection with any accrual of interest, the accretion of accreted value, the payment of interest or dividends in the

form of additional Indebtedness, amortization of original issue discount and increases in the amount of Indebtedness outstanding solely as a result of fluctuations in the exchange rate of currencies, in each case in respect of such Indebtedness.

The Liens on the Notes Collateral shall be subordinated to any Lien on such Notes Collateral that is permitted by clause (19) of the definition of "Permitted Liens" (other than such Permitted Liens in favor of the Issuer or any Restricted Subsidiary of the Issuer and such Permitted Liens relating to the licensing, development or commercialization of all or any portion of the Intellectual Property related to MM-398 for commercialization in the United States) and, upon request from the Issuer (which shall be accompanied by an Officers' Certificate), the Collateral Agent shall take such action as is requested by the Issuer to reflect such subordination (including the entry into non-disturbance and similar agreements) in connection with the licensing of Intellectual Property and any other transactions permitted by such clause (19), such as confirming in writing to any actual or potential licensee and/or counterparty that (i) the Collateral Agent shall not, by enforcing its Lien, or otherwise, disturb or otherwise affect the prior Lien of such licensee and/or counterparty or any other rights of the licensee and/or counterparty under the relevant agreements, (ii) so long as such licensee and/or counterparty is not in breach of or default under its agreements with the Issuer and/or its Subsidiaries, neither the Collateral Agent nor any successor thereto shall assert any rights of the Issuer and/or any Subsidiary to terminate any rights or benefits of the licensee and/or counterparty pursuant to the terms of such agreements, and (iii) upon entry by the Issuer and/or any Subsidiary into any non-exclusive license agreement with respect to such Intellectual Property with the party licensing such Intellectual Property, such non-exclusive licensee shall take its license rights under such license agreement free of the Liens on the Notes Collateral.

The Liens on the Notes Collateral shall also be junior to the Permitted Liens set forth in clauses (6)(B), (16), (28) and (31) of the definition of "Permitted Liens" and (as they relate to such clauses) clauses (20) and (32) of the definition of "Permitted Liens" to the extent such Permitted Liens are incurred on the Notes Collateral.

SECTION 4.12. Maintenance of Office or Agency.

(a) The Issuer shall maintain an office or agency (which may be an office of the Trustee or an Affiliate of the Trustee or Registrar) where Securities may be surrendered for registration of transfer or for exchange and where notices and demands to or upon the Issuer in respect of the Securities and this Indenture may be made. The Issuer shall give prompt written notice to the Trustee of the location, and any change in the location, of such office or agency. If at any time the Issuer shall fail to maintain any such required office or agency or shall fail to furnish the Trustee with the address thereof, such presentations and surrenders may be made at the corporate trust place of payment and notices and demands may be made at the Corporate Trust Office of the Trustee as set forth in Section 12.01.

(b) The Issuer may also from time to time designate one or more other offices or agencies where the Securities may be presented or surrendered for any or all such purposes and may from time to time rescind such designations; *provided, however*, that no such designation or rescission shall in any manner relieve the Issuer of its obligation to maintain an office or agency for such purposes. The Issuer shall give prompt written notice to the Trustee of any such designation or rescission and of any change in the location of any such other office or agency.

(c) The Issuer hereby designates the Corporate Trust Office of the Trustee or its agent as such office or agency of the Issuer in accordance with Section 2.04.

SECTION 4.13. After-Acquired Property. Upon the acquisition by any Issuer or any Guarantor of any assets or property, including any new Subsidiary of the Issuer or any Guarantor (in each case, other than Excluded Assets) (“After-Acquired Property”), the Issuer or such Guarantor shall promptly execute and deliver such security instruments, pledge agreements, financing statements and certificates and opinions of counsel as shall be reasonably necessary to vest in the Collateral Agent a perfected security interest or other Lien, subject only to Permitted Liens, in such After-Acquired Property and to have such After-Acquired Property (but subject to certain limitations, if applicable, including as described under Article 11) added to the Notes Collateral, and shall promptly deliver such Officers’ Certificates and Opinions of Counsel as are customary in secured financing transactions in the relevant jurisdictions or as are reasonably requested by the Trustee or the Collateral Agent (subject to customary assumptions, exceptions and qualifications), and thereupon all provisions of this Indenture relating to the Notes Collateral shall be deemed to relate to such After-Acquired Property to the same extent and with the same force and effect; *provided* that with respect to the security interest in After-Acquired Property that constitutes ABL Collateral securing First Priority Lien Obligations, such security interest securing the Securities and the Guarantees shall be junior to the security interest in favor of the First Priority Lien Obligations. Notwithstanding the foregoing, if any property or assets of the Issuer or any Guarantor originally deemed to be an Excluded Asset at any point ceases to be an Excluded Asset pursuant to such defined term, all or the applicable portion of such property and assets shall be deemed to be After-Acquired Property and shall be added to the Notes Collateral in accordance with the previous sentence.

SECTION 4.14. Line of Business. The Issuer shall not engage in any line of business other than those businesses engaged in on the Issue Date and any Similar Business.

SECTION 4.15. Use of Proceeds. The Issuer shall use, or will cause its Restricted Subsidiaries to use, the net proceeds from the issuance and sale of the Securities to repay all outstanding obligations under the Issuer’s Loan and Security Agreement, as amended, with Hercules Technology Growth Capital, Inc. dated as of November 8, 2012 and for working capital and other general corporate purposes.

SECTION 4.16. Existence. Subject to Section 5.01, each of the Issuer and each Guarantor will do or cause to be done all things necessary to preserve and keep in full force and effect its respective existence, rights (charter and statutory), license and franchises; *provided, however*, that the Issuer shall not be required to preserve any such existence, rights, license or franchises with respect to any such Guarantor if the loss thereof would not, individually or in the aggregate, have a material adverse effect on the business, financial condition or results of operations of the Issuer and the Guarantors taken as a whole.

ARTICLE 5

SUCCESSOR COMPANY

SECTION 5.01. When Issuer May Merge or Transfer Assets.

(a) The Issuer shall not, directly or indirectly, consolidate, amalgamate or merge with or into or wind up or convert into (whether or not the Issuer is the surviving Person), or sell, assign, transfer, lease, convey or otherwise dispose of all or substantially all of its properties or assets in one or more related transactions to, any Person unless:

(i) (x) the Issuer is the surviving Person or the Person formed by or surviving any such consolidation, amalgamation, merger, winding up or conversion (if other than the Issuer) or to which such sale, assignment, transfer, lease, conveyance or other disposition shall have been made is a corporation, partnership or limited liability company organized or existing under the laws of the United States, any state thereof or the District of Columbia (the Issuer or such Person, as the case may be, being herein called the "Successor Company"); and (y) the Successor Company (if other than the Issuer) expressly assumes all the obligations of the Issuer under this Indenture, the Securities, the Intercreditor Agreements and the Security Documents pursuant to supplemental indentures or other documents or instruments in form reasonably satisfactory to the Trustee;

(ii) immediately after giving effect to such transaction (and treating any Indebtedness that becomes an obligation of the Successor Company or any of its Restricted Subsidiaries as a result of such transaction as having been Incurred by the Successor Company or such Restricted Subsidiary at the time of such transaction) no Default shall have occurred and be continuing;

(iii) immediately after giving *pro forma* effect to such transaction, as if such transaction had occurred at the beginning of the applicable four-quarter period (and treating any Indebtedness that becomes an obligation of the Successor Company or any of its Restricted Subsidiaries as a result of such transaction as having been Incurred by the Successor Company or such Restricted Subsidiary at the time of such transaction), either:

(A) the Successor Company would be permitted to Incur at least \$1.00 of additional Indebtedness pursuant to the Consolidated Leverage Ratio test set forth in Section 4.03(a); or

(B) the Consolidated Leverage Ratio for the Successor Company and its Restricted Subsidiaries would be less than such ratio for the Issuer and its Restricted Subsidiaries immediately prior to such transaction;

(iv) each Guarantor, unless it is the other party to the transactions described above, shall have by supplemental indenture confirmed that its Guarantee shall apply to such Person's obligations under this Indenture and the Securities; and

(v) the Issuer shall have delivered to the Trustee (A) an Officers' Certificate and an Opinion or Opinions of Counsel, each stating (to the extent applicable with respect to such Opinion or Opinions of Counsel) that such transaction and such supplemental indentures (if any) comply with this Indenture and the obligations of the Issuer under this Indenture, the Securities, the Intercreditor Agreements and the Security Documents remain obligations of the Successor Company and confirming the necessary actions to continue the perfection and priority of the Collateral Agent's Lien in the Notes Collateral and of the preservation of its rights therein and (B) an Officers' Certificate stating that such necessary actions have been taken (together with evidence thereof) promptly and in any event no later than 30 days following such transaction.

The Successor Company (if other than the Issuer) shall succeed to, and be substituted for, the Issuer under this Indenture, the Securities, the Intercreditor Agreements and the Security Documents, and in such event the Issuer will automatically be released and discharged from its obligations under this Indenture, the Securities and the Security Documents. Notwithstanding the foregoing clauses (ii) and (iii) of this Section 5.01(a), any Restricted Subsidiary may merge, consolidate or amalgamate with or transfer all or part of its properties and assets to the Issuer or to another Restricted Subsidiary. This Article 5 will not apply to a sale, assignment, transfer, lease, conveyance or other disposition of property or assets between or among any of the Issuer and its Restricted Subsidiaries.

(b) Subject to the provisions of Section 10.02(b) (which govern the release of a Guarantee upon the sale or disposition of a Restricted Subsidiary of the Issuer that is a Guarantor), none of the Guarantors shall, and the Issuer shall not permit any Guarantor to, consolidate, amalgamate or merge with or into or wind up or convert into (whether or not such Guarantor is the surviving Person), or sell, assign, transfer, lease, convey or otherwise dispose of all or substantially all of its properties or assets in one or more related transactions to, any Person unless:

(i) either (A) such Guarantor is the surviving Person or the Person formed by or surviving any such consolidation, amalgamation, merger, winding up or conversion (if other than such Guarantor) or to which such sale, assignment, transfer, lease, conveyance or other disposition shall have been made is a corporation, partnership or limited liability company organized or existing under the laws of the jurisdiction of its formation (such Guarantor or such Person, as the case may be, being herein called the "Successor Guarantor") and the Successor Guarantor (if other than such Guarantor) expressly assumes all the obligations of such Guarantor under this Indenture and, if applicable, such Guarantors' Guarantee and the Security Documents pursuant to a supplemental indenture or other documents or instruments in form reasonably satisfactory to the Trustee or (B) such sale or disposition or consolidation, amalgamation or merger is not in violation of Section 4.06 (in which case such Guarantor shall be released from its Guarantee); and

(ii) the Successor Guarantor (if other than such Guarantor) shall have delivered or caused to be delivered to the Trustee an Officers' Certificate and an

Opinion of Counsel, each stating that such consolidation, amalgamation, merger, winding up, conversion, sale, assignment, transfer, lease, conveyance or disposition and such supplemental indenture (if any) comply with this Indenture.

Except as otherwise provided in this Indenture, the Successor Guarantor (if other than such Guarantor) will succeed to, and be substituted for, such Guarantor under this Indenture, such Guarantor's Guarantee and the Security Documents, and in such event such Guarantor will automatically be released and discharged from its obligations under this Indenture, such Guarantor's Guarantee and the Security Documents.

Notwithstanding the foregoing, any Guarantor may consolidate, amalgamate, merge with or into or wind up or convert into, or sell, assign, transfer, lease, convey or otherwise dispose of all or substantially all of its properties or assets to, the Issuer or any other Guarantor.

ARTICLE 6

DEFAULTS AND REMEDIES

SECTION 6.01. Events of Default. An "Event of Default" occurs if:

(a) there is a default in any payment of interest on any Security when the same becomes due and payable, and such default continues for a period of 30 days,

(b) there is a default in the payment of principal of or premium, if any, on any Security when due at its Stated Maturity, upon optional redemption, upon required repurchase, upon declaration of acceleration or otherwise (including pursuant to Section 4.01(b)),

(c) the Issuer or any of the Guarantors fails to comply with any of its agreements in the Securities or this Indenture (other than those referred to in clause (a) or (b) above) and such failure continues for 60 days after the notice specified below,

(d) the Issuer or any Restricted Subsidiary fails to pay any Indebtedness within any applicable grace period after such payment is due and payable (including at final maturity) or the acceleration of any such Indebtedness by the holders thereof because of a default, in each case, if the total amount of such Indebtedness unpaid or accelerated exceeds \$20,000,000 or its foreign currency equivalent,

(e) the Issuer or any Restricted Subsidiary pursuant to or within the meaning of any Bankruptcy Law:

(i) commences a voluntary case;

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

(iii) consents to the appointment of a Custodian of it or for any substantial part of its property; or

(iv) makes a general assignment for the benefit of its creditors or takes any comparable action under any foreign laws relating to insolvency,

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

(i) is for relief against the Issuer or any Restricted Subsidiary of the Issuer in an involuntary case;

(ii) appoints a Custodian of the Issuer or any Restricted Subsidiary of the Issuer or for any substantial part of its property; or

(iii) orders the winding up or liquidation of the Issuer or any Restricted Subsidiary of the Issuer;

or any similar relief is granted under any foreign laws and the order or decree remains unstayed and in effect for 60 days,

(g) the Issuer or any Restricted Subsidiary fails to pay final judgments aggregating in excess of \$20,000,000 or its foreign currency equivalent (net of any amounts that are covered by enforceable insurance policies issued by solvent carriers), which judgments are not discharged, waived or stayed for a period of 60 days following the entry thereof,

(h) any representation or warranty made in writing by or on behalf of the Issuer or any Guarantor in connection with the issuance and sale of the Securities or made in writing by or on behalf of the Issuer or any Guarantor or by any officer of the Issuer or any Guarantor furnished in connection with the transactions contemplated by this Indenture and the Security Documents proves to have been false or incorrect in any material respect on the date as of which made,

(i) the Collateral Agent fails to have a perfected security interest in any material portion of the Notes Collateral, except as contemplated by this Indenture and the Security Documents,

(j) any Guarantee ceases to be in full force and effect (except as contemplated by the terms thereof) or any Guarantor denies or disaffirms its obligations under this Indenture or any Guarantee and such Default continues for 10 days,

(k) unless all of the Notes Collateral has been released from the Liens in accordance with the provisions of the Security Documents with respect to the Securities, the Issuer shall assert or any Guarantor shall assert, in any pleading in any court of competent jurisdiction, that any such security interest is invalid or unenforceable and, in the case of any such Person that is a Subsidiary of the Issuer, the Issuer fails to cause such Subsidiary to rescind such assertions within 30 days after the Issuer has actual knowledge of such assertions, or

(l) the Issuer or any Guarantor fails to comply for 60 days after notice with its obligations contained in the Security Documents, except for a failure that would not be material to the Holders of the Securities and would not materially affect the value of the Notes Collateral taken as a whole.

The foregoing shall constitute Events of Default whatever the reason for any such Event of Default and whether it is voluntary or involuntary or is effected by operation of law or pursuant to any judgment, decree or order of any court or any order, rule or regulation of any administrative or governmental body.

The term "Bankruptcy Law" means Title 11, United States Code, or any similar U.S. federal or state law for the relief of debtors (or their foreign equivalents). The term "Custodian" means any receiver, trustee, assignee, liquidator, custodian or similar official under any Bankruptcy Law.

A Default under clause (c) or (l) above shall not constitute an Event of Default until the Trustee or the Holders of at least 25% in principal amount of the outstanding Securities notify the Issuer (and also the Trustee if given by the Holders) of the Default and the Issuer does not cure such Default within the time specified in clause (c) or (l) above after receipt of such notice. Such notice must specify the Default, demand that it be remedied and state that such notice is a "Notice of Default". The Issuer shall deliver to the Trustee, within 30 days after the occurrence thereof, written notice in the form of an Officers' Certificate of any event that is, or with the giving of notice or the lapse of time or both would become, an Event of Default, its status and what action the Issuer is taking or proposes to take in respect thereof.

SECTION 6.02. Acceleration. If an Event of Default (other than an Event of Default specified in Section 6.01(e) or 6.01(f) with respect to the Issuer) occurs and is continuing, the Trustee or the Holders of at least 25% in principal amount of outstanding Securities by notice to the Issuer may, and if such notice is given by the Holders such notice shall be given to the Issuer and the Trustee, declare that the principal of, and the premium, if any, and accrued but unpaid interest on, all the Securities is due and payable. Upon such a declaration, such principal and interest shall be due and payable immediately. If an Event of Default specified in Section 6.01(e) or 6.01(f) with respect to the Issuer occurs, the principal of, and the premium, if any, and accrued but unpaid interest on, all the Securities shall *ipso facto* become and be immediately due and payable, without any declaration or other act on the part of the Trustee or any Holders. The Holders of a majority in principal amount of the Securities by notice to the Trustee may rescind an acceleration and its consequences if the rescission would not conflict with any judgment or decree and if all existing Events of Default (except nonpayment of principal, interest or premium that has become due solely because of the acceleration) have been cured or waived.

In the event of any Event of Default specified in Section 6.01(d), such Event of Default and all consequences thereof (excluding, however, any resulting payment default) shall be annulled, waived and rescinded, automatically and without any action by the Trustee or the Holders of the Securities, if within 20 days after such Event of Default arose the Issuer delivers an Officers' Certificate to the Trustee stating that (x) the Indebtedness or guarantee that is the basis for such Event of Default has been discharged, (y) the Holders thereof have rescinded or waived the acceleration, notice or action (as the case may be) giving rise to such Event of Default or (z) the default that is the basis for such Event of Default has been cured, it being understood that in no event shall an acceleration of the principal amount of the Securities as described above be annulled, waived or rescinded upon the happening of any such events.

SECTION 6.03. Other Remedies. If an Event of Default occurs and is continuing, the Trustee may, but only at the written direction of Holders of a majority in principal amount of the Securities, pursue any available remedy at law or in equity to collect the payment of principal of or interest on the Securities or to enforce the performance of any provision of the Securities or this Indenture.

The Trustee may maintain a proceeding even if it does not possess any of the Securities or does not produce any of them in the proceeding. A delay or omission by the Trustee or any Holder in exercising any right or remedy accruing upon an Event of Default shall not impair the right or remedy or constitute a waiver of or acquiescence in the Event of Default. No remedy is exclusive of any other remedy. To the extent required by law, all available remedies are cumulative.

SECTION 6.04. Waiver of Past Defaults. Provided the Securities are not then due and payable by reason of a declaration of acceleration, the Holders of a majority in principal amount of the Securities by written notice to the Trustee may waive an existing Default and its consequences except (a) an uncured Default in the payment of the principal of or interest on a Security, (b) a Default arising from the failure to redeem or purchase any Security when required pursuant to the terms of this Indenture or (c) a Default in respect of a provision that under Section 9.02 cannot be amended without the consent of each Holder affected. When a Default is waived, it is deemed cured and the Issuer, the Trustee and the Holders will be restored to their former positions and rights under this Indenture, but no such waiver shall extend to any subsequent or other Default or impair any consequent right. Any past Default or compliance with any provisions may be waived with the consent of the Holders of a majority in principal amount of the Securities then outstanding.

SECTION 6.05. Control by Majority. The Holders of a majority in principal amount of the Securities may direct the time, method and place of conducting any proceeding for any remedy available to the Trustee or of exercising any trust or power conferred on the Trustee. However, the Trustee may refuse to follow any direction that conflicts with law or this Indenture or, subject to Section 7.01, that the Trustee determines is unduly prejudicial to the rights of any other Holder or that would involve the Trustee in personal liability. Prior to taking any action under this Indenture, the Trustee shall be entitled to indemnification satisfactory to it in its sole discretion against all losses and expenses caused by taking or not taking such action.

SECTION 6.06. Limitation on Suits.

(a) Except to enforce the right to receive payment of principal, premium (if any) or interest when due, no Holder may pursue any remedy with respect to this Indenture or the Securities unless:

- (i) the Holder gives the Trustee written notice stating that an Event of Default is continuing;

- (ii) the Holders of at least 25% in principal amount of the Securities make a written request to the Trustee to pursue the remedy;
- (iii) such Holder or Holders offer to the Trustee security or indemnity satisfactory to it against any loss, liability or expense;
- (iv) the Trustee does not comply with the request within 60 days after receipt of the request and the offer of security or indemnity; and
- (v) the Holders of a majority in principal amount of the Securities do not give the Trustee a direction inconsistent with the request during such 60-day period.

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

SECTION 6.07. Rights of the Holders to Receive Payment. Notwithstanding any other provision of this Indenture, the right of any Holder to receive payment of principal of and interest on the Securities held by such Holder, on or after the respective due dates expressed or provided for in this Indenture or in the Securities, or to bring suit for the enforcement of any such payment on or after such respective dates, shall not be impaired or affected without the consent of such Holder.

SECTION 6.08. Collection Suit by Trustee. If an Event of Default specified in Section 6.01(a) or Section 6.01(b) occurs and is continuing, the Trustee may recover judgment in its own name and as trustee of an express trust against the Issuer or any other obligor on the Securities for the whole amount then due and owing (together with interest on overdue principal and (to the extent lawful) on any unpaid interest at the rate provided for in the Securities) and the amounts provided for in Section 7.06.

SECTION 6.09. Trustee May File Proofs of Claim. The Trustee may file such proofs of claim and other papers or documents as may be necessary or advisable in order to have the claims of the Trustee (including any claim for reasonable compensation, expenses disbursements and advances of the Trustee (including counsel, accountants, experts or such other professionals as the Trustee deems necessary, advisable or appropriate)) and the Holders allowed in any judicial proceedings relative to the Issuer or any Guarantor, their creditors or their property, shall be entitled to participate as a member, voting or otherwise, of any official committee of creditors appointed in such matters and, unless prohibited by law or applicable regulations, may vote on behalf of the Holders in any election of a trustee in bankruptcy or other Person performing similar functions and be a member of a creditors' or other similar committee, and any Custodian in any such judicial proceeding is hereby authorized by each Holder to make payments to the Trustee and, in the event that the Trustee shall consent to the making of such payments directly to the Holders, to pay to the Trustee any amount due it for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and its counsel, and any other amounts due the Trustee under Section 7.06.

SECTION 6.10. Priorities. If the Trustee collects any money or property pursuant to this Article 6, it shall pay out the money or property in the following order:

FIRST: to the Trustee for amounts due under Section 7.06;

SECOND: to the Holders for amounts due and unpaid on the Securities for principal, premium, if any, and interest, ratably, without preference or priority of any kind, according to the amounts due and payable on the Securities for principal, premium, if any, and interest, respectively; and

THIRD: to the Issuer or, to the extent the Trustee collects any amount for any Guarantor, to such Guarantor.

The Trustee may fix a record date and payment date for any payment to the Holders pursuant to this Section 6.10. At least 15 days before such record date, the Trustee shall provide to each Holder and the Issuer a written notice that states the record date, the payment date and amount to be paid.

SECTION 6.11. Undertaking for Costs. In any suit for the enforcement of any right or remedy under this Indenture or in any suit against the Trustee for any action taken or omitted by it as Trustee, a court in its discretion may require the filing by any party litigant in the suit of an undertaking to pay the costs of the suit, and the court in its discretion may assess reasonable costs, including reasonable attorneys' fees and expenses, against any party litigant in the suit, having due regard to the merits and good faith of the claims or defenses made by the party litigant. This Section 6.11 does not apply to a suit by the Trustee, a suit by a Holder pursuant to Section 6.07 or a suit by Holders of more than 10% in principal amount of the Securities.

SECTION 6.12. Waiver of Stay or Extension Laws. Neither the Issuer nor any Guarantor (to the extent it may lawfully do so) shall at any time insist upon, or plead, or in any manner whatsoever claim or take the benefit or advantage of, any stay or extension law wherever enacted, now or at any time hereafter in force, that may affect the covenants or the performance of this Indenture; and the Issuer and each Guarantor (to the extent that it may lawfully do so) hereby expressly waive all benefit or advantage of any such law, and shall not hinder, delay or impede the execution of any power herein granted to the Trustee, but shall suffer and permit the execution of every such power as though no such law had been enacted.

ARTICLE 7

TRUSTEE

SECTION 7.01. Duties of Trustee.

(a) If an Event of Default has occurred and is continuing, the Trustee shall exercise 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 such person's own affairs, except with respect to the obligation to exercise rights and remedies following an Event of Default, which right and remedies shall be performed by the Trustee acting solely upon the direction of Holders of a majority in principal amount of the Securities in accordance with Section 6.03 and Section 6.05.

(b) Except during the continuance of an Event of Default:

(i) the Trustee undertakes to perform such duties and only such duties as are specifically set forth in this Indenture and no implied covenants or obligations shall be read into this Indenture against the Trustee (it being agreed that the permissive right of the Trustee to do things enumerated in this Indenture shall not be construed as a duty); and

(ii) in the absence of bad faith on its part, the Trustee may conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon certificates or opinions furnished to the Trustee and conforming to the requirements of this Indenture. The Trustee shall be under no duty to make any investigation as to any statement contained in any such instance, but may accept the same as conclusive evidence of the truth and accuracy of such statement or the correctness of such opinions. However, in the case of certificates or opinions required by any provision hereof to be provided to it, the Trustee shall examine the certificates and opinions to determine whether or not they conform to the requirements of this Indenture.

(c) The Trustee may not be relieved from liability for its own negligent action, its own negligent failure to act or its own willful misconduct, except that:

(i) this paragraph does not limit the effect of Section 7.01(b);

(ii) the Trustee shall not be liable for any error of judgment made in good faith by a Trust Officer unless it is proved that the Trustee was negligent in ascertaining the pertinent facts;

(iii) the Trustee shall not be liable with respect to any action it takes or omits to take in good faith in accordance with a direction received by it pursuant to Section 6.05; and

(iv) no provision of this Indenture shall require the Trustee to expend or risk its own funds or otherwise incur financial liability in the performance of any of its duties hereunder or in the exercise of any of its rights or powers.

(d) Every provision of this Indenture that in any way relates to the Trustee is subject to paragraphs (a), (b) and (c) of this Section 7.01.

(e) The Trustee shall not be liable for interest on any money received by it except as the Trustee may agree in writing with the Issuer.

(f) Money held in trust by the Trustee need not be segregated from other funds except to the extent required by law.

(g) The Trustee shall not be liable to any Person for special, punitive, indirect, consequential or incidental loss or damage of any kind whatsoever (including lost profits), even if the Trustee has been advised of the likelihood of such loss or damage.

(h) Every provision of this Indenture relating to the conduct or affecting the liability of or affording protection to the Trustee shall be subject to the provisions of this Section 7.01 and, to the extent applicable, to the provisions of the TIA.

SECTION 7.02. Rights of Trustee.

(a) The Trustee may conclusively rely on any document believed by it to be genuine and to have been signed or presented by the proper person. The Trustee need not investigate any fact or matter stated in the document.

(b) Before the Trustee acts or refrains from acting, it may require an Officers' Certificate or an Opinion of Counsel or both. The Trustee shall not be liable for any action it takes or omits to take in good faith in reliance on the Officers' Certificate or Opinion of Counsel.

(c) The Trustee may act through agents and shall not be responsible for the misconduct or negligence of any agent appointed with due care.

(d) The Trustee shall not be liable for any action it takes or omits to take in good faith that it believes to be authorized or within its rights or powers; *provided, however*, that the Trustee's conduct does not constitute willful misconduct or negligence.

(e) The Trustee may consult with counsel of its own selection and the advice or opinion of counsel with respect to legal matters relating to this Indenture and the Securities or any Opinion of Counsel shall be full and complete authorization and protection from liability in respect of any action taken, omitted or suffered by it hereunder in good faith and in accordance with the advice or opinion of such counsel or Opinion of Counsel.

(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, debenture, note or other paper or document unless requested in writing to do so by the Holders of a majority in principal amount of the Securities at the time outstanding, but the Trustee, in its discretion, may make such further inquiry or investigation into such facts or matters as it may see fit, and, if the Trustee shall determine to make such further inquiry or investigation, it shall be entitled to examine the books, records and premises of the Issuer, personally or by agent or attorney, at the expense of the Issuer and shall incur no liability of any kind by reason of such inquiry or investigation.

(g) The Trustee shall be under no obligation to exercise any of the rights or powers vested in it by this Indenture at the request or direction of any of the Holders pursuant to this Indenture, unless such Holders shall have offered to the Trustee security or indemnity satisfactory to the Trustee in its sole discretion against the costs, expenses and liabilities that might be incurred by it in compliance with such request or direction.

(h) The rights, privileges, protections, immunities and benefits given to the Trustee, including its right to be compensated, reimbursed and indemnified as provided in Section 7.06, are extended to, and shall be enforceable by, the Trustee in each of its capacities hereunder (including as Collateral Agent), and each agent, custodian and other Person employed to act hereunder.

(i) The Trustee shall not be liable for any action taken or omitted by it in good faith at the direction of the Holders of a majority in principal amount of the Securities as to the time, method and place of conducting any proceedings for any remedy available to the Trustee or the exercising of any power conferred by this Indenture.

(j) Any action taken, or omitted to be taken, by the Trustee in good faith pursuant to this Indenture upon the request or authority or consent of any person who, at the time of making such request or giving such authority or consent, is the Holder of any Security shall be conclusive and binding upon future Holders of Securities and upon Securities executed and delivered in exchange therefor or in place thereof.

(k) 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 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 7.03. Individual Rights of Trustee. The Trustee in its individual or any other capacity may become the owner or pledgee of Securities and may otherwise deal with the Issuer or its Affiliates with the same rights it would have if it were not Trustee. The Trustee and its Affiliates have engaged, currently are engaged and may in the future engage in financial or other transactions with the Issuer and its Affiliates in the ordinary course of their respective businesses, subject to, to the extent applicable, the TIA. Any Paying Agent or Registrar may do the same with like rights. However, the Trustee must comply with Sections 7.09 and 7.10.

SECTION 7.04. Trustee's Disclaimer. The Trustee shall not be responsible for and makes no representation as to the validity or adequacy of this Indenture, any Guarantee, the Securities or any Security Documents, it shall not be accountable for the Issuer's use of the proceeds from the Securities, and it shall not be responsible for any statement of the Issuer or any Guarantor in this Indenture or in any document issued in connection with the sale of the Securities or in the Securities other than the Trustee's certificate of authentication. The Trustee shall not be charged with knowledge of any Default or Event of Default under Section 6.01(c), 6.01(d), 6.01(e), 6.01(f), 6.01(g), 6.01(h), 6.01(i), 6.01(j), 6.01(k) or 6.01(l) unless either (a) a Trust Officer shall have actual knowledge thereof or (b) the Trustee shall have received written notice thereof in accordance with Section 12.01 from the Issuer, any Guarantor or any Holder.

SECTION 7.05. Notice of Defaults. If a Default occurs and is continuing and if it is actually known to the Trustee, the Trustee shall provide to each Holder written notice of the Default within 30 days after it is actually known to a Trust Officer or written notice of it is received by the Trustee. Except in the case of a Default in the payment of principal of or premium (if any) or interest on any Security, the Trustee may withhold the notice if and so long as a committee of its Trust Officers in good faith determines that withholding the notice is in the interests of the Holders.

SECTION 7.06. Compensation and Indemnity. The Issuer shall pay to the Trustee from time to time reasonable compensation for its services, as agreed between the Issuer and the Trustee. The Trustee's compensation shall not be limited by any law on compensation of a trustee of an express trust. The Issuer shall reimburse the Trustee upon request for all reasonable out-of-pocket expenses incurred or made by it, including costs of collection, in addition to the compensation for its services. Such expenses shall include the reasonable compensation and expenses, disbursements and advances of the Trustee's agents, counsel, accountants and experts. The Issuer and each Guarantor, jointly and severally, shall indemnify the Trustee against any and all loss, liability, claim, damage or expense (including reasonable attorneys' fees and expenses) incurred by or in connection with the acceptance or administration of this trust and the performance of its duties hereunder, including the costs and expenses of enforcing this Indenture or a Guarantee against the Issuer or a Guarantor (including this Section 7.06) and defending itself against or investigating any claim (whether asserted by the Issuer, any Guarantor, any Holder or any other Person). The obligation to pay such amounts shall survive the payment in full or defeasance of the Securities or the removal or resignation of the Trustee. The Trustee shall notify the Issuer of any claim for which it may seek indemnity promptly upon obtaining actual knowledge thereof; *provided, however*, that any failure so to notify the Issuer shall not relieve the Issuer or any Guarantor of its indemnity obligations hereunder. The Issuer shall defend the claim and the indemnified party shall provide reasonable cooperation at the Issuer's expense in the defense. Such indemnified parties may have separate counsel and the Issuer and the Guarantors, as applicable, shall pay the fees and expenses of such counsel; *provided, however*, that the Issuer shall not be required to pay such fees and expenses if it assumes such indemnified parties' defense and, in such indemnified parties' reasonable judgment, there is no conflict of interest between the Issuer and the Guarantors, as applicable, and such parties in connection with such defense. The Issuer need not reimburse any expense or indemnify against any loss, liability or expense incurred by an indemnified party through such party's own willful misconduct or gross negligence (as determined by a final, nonappealable order of a court of competent jurisdiction).

To secure the Issuer's and the Guarantors' payment obligations in this Section 7.06, the Trustee shall have a Lien prior to the Securities on all money or property held or collected by the Trustee other than money or property held in trust to pay principal of, and premium, if any, and interest on, particular Securities.

The Issuer's and the Guarantors' payment obligations pursuant to this Section 7.06 shall survive the satisfaction or discharge of this Indenture, any rejection or termination of this Indenture under any bankruptcy law or the resignation or removal of the Trustee. Without prejudice to any other rights available to the Trustee under applicable law, when the Trustee incurs expenses after the occurrence of a Default specified in Section 6.01(e) or Section 6.01(f) with respect to the Issuer, the expenses are intended to constitute expenses of administration under the Bankruptcy Law.

No provision of this Indenture shall require the Trustee to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder, or in the exercise of any of its rights or powers, if repayment of such funds or adequate indemnity against such risk or liability is not assured to its satisfaction.

SECTION 7.07. Replacement of Trustee.

(a) The Trustee may resign in writing at any time upon 30 days prior notice to the Issuer by so notifying the Issuer. The Holders of a majority in principal amount of the Securities may remove the Trustee by so notifying the Trustee and may appoint a successor Trustee. The Issuer shall remove the Trustee if:

- (i) the Trustee fails to comply with Section 7.09;
- (ii) the Trustee is adjudged bankrupt or insolvent or an order for relief is entered with respect to the Trustee under any Bankruptcy Law;
- (iii) a receiver or other public officer takes charge of the Trustee or its property; or
- (iv) the Trustee otherwise becomes incapable of acting.

(b) If the Trustee resigns or is removed by the Issuer or by the Holders of a majority in principal amount of the Securities and such Holders do not reasonably promptly appoint a successor Trustee, or if a vacancy exists in the office of Trustee for any reason (the Trustee in such event being referred to herein as the retiring Trustee), the Issuer shall promptly appoint a successor Trustee.

(c) A successor Trustee shall deliver a written acceptance of its appointment to the retiring Trustee and to the Issuer. Thereupon the resignation or removal of the retiring Trustee shall become effective, and the successor Trustee shall have all the rights, powers and duties of the Trustee under this Indenture. The successor Trustee shall provide a written notice of its succession to the Holders. The retiring Trustee shall promptly transfer all property held by it as Trustee to the successor Trustee, subject to the Lien provided for in Section 7.06.

(d) If a successor Trustee does not take office within 60 days after the retiring Trustee resigns or is removed, the retiring Trustee or the Holders of 10% in principal amount of the Securities may petition at the expense of the Issuer any court of competent jurisdiction for the appointment of a successor Trustee.

(e) If the Trustee fails to comply with Section 7.09, unless the Trustee's duty to resign is stayed as provided in Section 310(b) of the TIA, any Holder who has been a bona fide holder of a Security for at least six months may petition any court of competent jurisdiction for the removal of the Trustee and the appointment of a successor Trustee.

(f) Notwithstanding the replacement of the Trustee pursuant to this Section 7.07, the Issuer's obligations under Section 7.06 shall continue for the benefit of the retiring Trustee.

SECTION 7.08. Successor Trustee by Merger. If the Trustee consolidates with, merges with or converts into, or transfers all or substantially all its corporate trust business or assets to, another corporation or banking association, the resulting, surviving or transferee corporation or banking association without any further act shall be the successor Trustee.

In case at the time such successor or successors by merger, conversion or consolidation to the Trustee shall succeed to the trusts created by this Indenture any of the Securities shall have been authenticated but not delivered, any such successor to the Trustee may adopt the certificate of authentication of any predecessor trustee, and deliver such Securities so authenticated; and in case at that time any of the Securities shall not have been authenticated, any successor to the Trustee may authenticate such Securities either in the name of any predecessor hereunder or in the name of the successor to the Trustee; and in all such cases such certificates shall have the full force that it is anywhere in the Securities or in this Indenture provided that the certificate of the Trustee shall have.

SECTION 7.09. Eligibility; Disqualification. The Trustee shall at all times satisfy the requirements of Section 310(a) of the TIA. The Trustee shall have a combined capital and surplus of at least \$100,000,000 as set forth in its most recent published annual report of condition. The Trustee shall comply with Section 310(b) of the TIA, subject to its right to apply for a stay of its duty to resign under the penultimate paragraph of Section 310(b) of the TIA; *provided, however*, that there shall be excluded from the operation of Section 310(b)(1) of the TIA any series of securities issued under this Indenture and any indenture or indentures under which other securities or certificates of interest or participation in other securities of the Issuer is outstanding if the requirements for such exclusion set forth in Section 310(b)(1) of the TIA are met.

SECTION 7.10. Preferential Collection of Claims Against the Issuer. The Trustee shall comply with Section 311(a) of the TIA, excluding any creditor relationship listed in Section 311(b) of the TIA. A Trustee who has resigned or been removed shall be subject to Section 311(a) of the TIA to the extent indicated.

SECTION 7.11. Confidential Information. The Trustee, in its individual capacity and as Trustee, agrees and acknowledges that all confidential information (“Confidential Information”) provided to the Trustee by the Issuer or any Subsidiary (or any direct or indirect equityholder of the Issuer or such Subsidiary) or any Holder (or holder of a beneficial interest in the Securities) may be considered to be proprietary and confidential information. The Trustee agrees to take reasonable precautions to keep Confidential Information confidential, which precautions shall be no less stringent than those that the Trustee employs to protect its own confidential information. The Trustee shall not disclose to any third party other than as set forth herein, and shall not use for any purpose other than the exercise of the Trustee’s rights and the performance of its obligations under this Indenture, any Confidential Information without the prior written consent of the Issuer or such Holder (or such holder of a beneficial interest in the Securities), as applicable. The Trustee shall limit access to Confidential Information received hereunder to (a) its directors, officers, managers and employees and (b) its legal advisors, to each of whom disclosure of Confidential Information is necessary for the purposes described above; provided, however, that in each case such party has expressly agreed to maintain such information in confidence under terms and conditions substantially identical to the terms of this Section 7.11.

The Trustee agrees that the Issuer or any Holder (or any holder of a beneficial interest in the Securities), as applicable, does not have any responsibility whatsoever for any reliance on Confidential Information by the Trustee or by any Person to whom such information

is disclosed in connection with this Indenture, whether related to the purposes described above or otherwise. Without limiting the generality of the foregoing, the Trustee agrees that the Issuer or any Holder (or any holder of a beneficial interest in the Securities), as applicable, makes no representation or warranty whatsoever to it with respect to Confidential Information or its suitability for such purposes. The Trustee further agrees that it shall not acquire any rights against the Issuer or any of its Subsidiaries or any employee, officer, director, manager, representative or agent of the Issuer or any of its Subsidiaries or any Holder (or any holder of a beneficial interest in the Securities), as applicable (together with the Issuer, "Confidential Parties") as a result of the disclosure of Confidential Information to the Trustee and that no Confidential Party has any duty, responsibility, liability or obligation to any Person as a result of any such disclosure.

In the event the Trustee is required to disclose any Confidential Information received hereunder in order to comply with any laws, regulations or court orders, it may disclose such information only to the extent necessary for such compliance; provided, however, that it shall give the Issuer or any Holder (or any holder of a beneficial interest in the Securities), as applicable, reasonable advance written notice of any court proceeding in which such disclosure may be required pursuant to a court order so as to afford the Issuer or any Holder (or any holder of a beneficial interest in the Securities), as applicable, full and fair opportunity to oppose the issuance of such order and to appeal therefrom and shall cooperate reasonably with the Issuer or any Holder (or any holder of a beneficial interest in the Securities), as applicable, in opposing such court order and in securing confidential treatment of any such information to be disclosed and/or obtaining a protective order narrowing the scope of such disclosure.

Each of the Paying Agent and the Registrar agrees to be bound by this Section 7.11 to the same extent as the Trustee.

ARTICLE 8

DISCHARGE OF INDENTURE; DEFEASANCE

SECTION 8.01. Discharge of Liability on Securities; Defeasance. This Indenture shall be discharged and shall cease to be of further effect (except as to surviving rights of registration of transfer or exchange of Securities, as expressly provided for in this Indenture) as to all outstanding Securities when:

(a) either (i) all the Securities theretofore authenticated and delivered (other than Securities pursuant to Section 2.08 that have been replaced or paid and Securities for whose payment money has theretofore been deposited in trust or segregated and held in trust by the Issuer and thereafter repaid by the Issuer or discharged from such trust) have been delivered to the Trustee for cancellation or (ii) all of the Securities (a) have become due and payable, (b) will become due and payable at their Stated Maturity within one year or (c) if redeemable at the option of the Issuer, are to be called for redemption within one year under arrangements satisfactory to the Trustee for the giving of notice of redemption by the Trustee in the name, and at the expense, of the Issuer, and the Issuer has irrevocably deposited or caused to be deposited with the Trustee funds in an amount sufficient to pay and discharge the entire Indebtedness on the Securities not theretofore delivered to the Trustee for cancellation, for principal of, and

premium, if any, and interest on, the Securities to the date of deposit, together with irrevocable instructions from the Issuer directing the Trustee to apply such funds to the payment thereof at maturity or redemption, as the case may be;

(b) the Issuer and/or the Guarantors have paid all other sums payable under this Indenture; and

(c) the Issuer has delivered to the Trustee an Officers' Certificate and an Opinion of Counsel stating that all conditions precedent under this Indenture relating to the satisfaction and discharge of this Indenture have been complied with.

(d) Notwithstanding clauses (a) and (b) above, the Issuer's obligations in Sections 2.04, 2.05, 2.06, 2.07, 2.08, 2.09, 6.07, 7.06 and 7.07 and in this Article 8 shall survive until the Securities have been paid in full. Thereafter, the Issuer's obligations in Sections 7.06, 8.05 and 8.06 shall survive such satisfaction and discharge.

(e) Subject to Section 8.01(d) and Section 8.02, the Issuer at any time may terminate (i) all its obligations under the Securities and this Indenture (with respect to such Securities) ("legal defeasance option") or (ii) its obligations under Sections 4.02, 4.03, 4.04, 4.05, 4.06, 4.07, 4.10, 4.11, 4.13, 4.14, 4.15 and 4.16 and the operation of Section 4.08, Section 5.01 and Sections 6.01(c), 6.01(d), 6.01(e) (with respect to Restricted Subsidiaries of the Issuer only), 6.01(f) (with respect to Restricted Subsidiaries of the Issuer only), 6.01(g), 6.01(h), 6.01(i), 6.01(j), 6.01(k) and 6.01(l) ("covenant defeasance option"). The Issuer may exercise its legal defeasance option notwithstanding its prior exercise of its covenant defeasance option. In the event that the Issuer terminates all of its obligations under the Securities and this Indenture (with respect to such Securities) by exercising its legal defeasance option or its covenant defeasance option, the obligations of each Guarantor under its Guarantee of such Securities and the Security Documents shall be terminated simultaneously with the termination of such obligations.

If the Issuer exercises its legal defeasance option, payment of the Securities so defeased may not be accelerated because of an Event of Default. If the Issuer exercises its covenant defeasance option, payment of the Securities so defeased may not be accelerated because of an Event of Default specified in Section 6.01(c), 6.01(d), 6.01(e) (to the extent such Section 6.01(e) applies to Restricted Subsidiaries), 6.01(f) (to the extent such Section 6.01(f) applies to Restricted Subsidiaries), 6.01(g), 6.01(h), 6.01(i), 6.01(j), 6.01(k) or 6.01(l) or because of the failure of the Issuer to comply with Section 5.01.

Upon satisfaction of the conditions set forth herein and upon request of the Issuer, the Trustee shall acknowledge in writing the discharge of those obligations that the Issuer terminates.

SECTION 8.02. Conditions to Defeasance.

(a) The Issuer may exercise its legal defeasance option or its covenant defeasance option only if:

(i) the Issuer irrevocably deposits in trust with the Trustee cash in U.S. Dollars, U.S. Government Obligations or a combination thereof in an amount sufficient, or U.S. Government Obligations, the principal of and the interest on which will be sufficient, or a combination thereof sufficient, to pay the principal of and premium (if any) and interest on the Securities when due at maturity or redemption, as the case may be, including interest thereon to maturity or such redemption date;

(ii) the Issuer delivers to the Trustee a certificate from a firm of independent accountants expressing its opinion that the payments of principal and interest when due and without reinvestment on the deposited U.S. Government Obligations plus any deposited money without investment will provide cash at such times and in such amounts as will be sufficient to pay principal, premium, if any, and interest when due on all the Securities to maturity or redemption, as the case may be;

(iii) the deposit does not constitute a default under any other agreement binding on the Issuer;

(iv) in the case of the legal defeasance option, the Issuer shall have delivered to the Trustee an Opinion of Counsel stating that (1) the Issuer has received from, or there has been published by, the IRS a ruling, or (2) since the date of this Indenture there has been a change in the applicable U.S. federal income tax law, in either case to the effect that, and based thereon such Opinion of Counsel shall confirm that, the Holders will not recognize income, gain or loss for U.S. federal income tax purposes as a result of such deposit and defeasance and will be subject to U.S. federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such deposit and defeasance had not occurred;

(v) in the case of the covenant defeasance option, the Issuer shall have delivered to the Trustee an Opinion of Counsel to the effect that the Holders will not recognize income, gain or loss for U.S. federal income tax purposes as a result of such deposit and defeasance and will be subject to U.S. federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such deposit and defeasance had not occurred; and

(vi) the Issuer delivers to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that all conditions precedent to the defeasance and discharge of the Securities to be so defeased and discharged as contemplated by this Article 8 have been complied with.

(b) Before or after a deposit, the Issuer may make arrangements satisfactory to the Trustee for the redemption of such Securities at a future date in accordance with Article 3.

SECTION 8.03. Application of Trust Money. The Trustee shall hold in trust money or U.S. Government Obligations (including proceeds thereof) deposited with it pursuant

to this Article 8. It shall apply the deposited money and the money from U.S. Government Obligations through each Paying Agent and in accordance with this Indenture to the payment of principal of and interest on the Securities so discharged or defeased.

SECTION 8.04. Repayment to Issuer. Each of the Trustee and each Paying Agent shall promptly turn over to the Issuer upon request any money or U.S. Government Obligations held by it as provided in this Article 8 that, in the written opinion of a nationally recognized firm of independent public accountants delivered to the Trustee (which delivery shall only be required if U.S. Government Obligations have been so deposited), are in excess of the amount thereof that would then be required to be deposited to effect an equivalent discharge or defeasance in accordance with this Article 8.

Subject to any applicable abandoned property law, the Trustee and each Paying Agent shall pay to the Issuer upon written request any money held by them for the payment of principal or interest that remains unclaimed for two years, and, thereafter, Holders entitled to the money must look to the Issuer for payment as general creditors, and the Trustee and each Paying Agent shall have no further liability with respect to such monies.

SECTION 8.05. Indemnity for Government Obligations. The Issuer shall pay and shall indemnify the Trustee against any tax, fee or other charge imposed on or assessed against deposited U.S. Government Obligations or the principal and interest received on such U.S. Government Obligations.

SECTION 8.06. Reinstatement. If the Trustee or any Paying Agent is unable to apply any money or U.S. Government Obligations in accordance with this Article 8 by reason of any legal proceeding or by reason of any order or judgment of any Governmental Authority enjoining, restraining or otherwise prohibiting such application, the Issuer's obligations under this Indenture and the Securities so discharged or defeased shall be revived and reinstated as though no deposit had occurred pursuant to this Article 8 until such time as the Trustee or any Paying Agent is permitted to apply all such money or U.S. Government Obligations in accordance with this Article 8; *provided, however*, that, if the Issuer has made any payment of principal of or interest on any such Securities because of the reinstatement of its obligations, the Issuer shall be subrogated to the rights of the Holders of such Securities to receive such payment from the money or U.S. Government Obligations held by the Trustee or any Paying Agent.

ARTICLE 9

AMENDMENTS AND WAIVERS

SECTION 9.01. Without Consent of the Holders. Notwithstanding Section 9.02, the Issuer, the Collateral Agent, the Guarantors and the Trustee may amend or supplement this Indenture, the Securities, the Security Documents or the Intercreditor Agreements, and may waive any provision thereof, without notice to or consent of any Holder:

- (i) to cure any ambiguity, omission, mistake, defect or inconsistency;
- (ii) to provide for the assumption by a Successor Company of the obligations of the Issuer under this Indenture and the Securities;

- (iii) to provide for the assumption by a Successor Guarantor of the obligations of a Guarantor under this Indenture and its Guarantee;
- (iv) to provide for uncertificated Securities in addition to or in place of certificated Securities; *provided, however*, that the uncertificated Securities are issued in registered form for purposes of Sections 871(h)(2)(B) and 881(c)(2)(B) of the Code and United States Treasury Regulation Section 5f.103-1(c);
- (v) to add additional Guarantees with respect to the Securities;
- (vi) to add to the covenants of the Issuer for the benefit of the Holders or to surrender any right or power conferred herein upon the Issuer;
- (vii) to make any change that does not adversely affect the rights of any Holder;
- (viii) to conform the text of this Indenture, the Guarantees, the Securities, the Security Documents or the Intercreditor Agreements to any provisions of the Summary of Terms dated as of December 9, 2015 to the extent that such provision in the Summary of Terms dated as of December 9, 2015 was intended to be a verbatim recitation of a provision of this Indenture, the Guarantees, the Securities, the Security Documents or the Intercreditor Agreements;
- (ix) to add additional assets as Notes Collateral to secure the Securities;
- (x) to release Notes Collateral from the Lien pursuant to this Indenture, the Security Documents and the Intercreditor Agreements when permitted or required by this Indenture, the Security Documents or the Intercreditor Agreements; or
- (xi) to modify the Security Documents and/or the Intercreditor Agreements (a) to secure additional extensions of credit and add additional secured creditors holding First Priority Lien Obligations so long as such First Priority Lien Obligations are not prohibited by the provisions of this Indenture, (b) as provided for in provisions comparable to Section 2.11(b) and Section 2.12 of the form of Intercreditor Agreement attached hereto as Exhibit C, (c) to add the Issuer or any Guarantor as a party to any Intercreditor Agreement to the extent such party Incurs any Secured Indebtedness that constitutes First Priority Lien Obligations in accordance with the terms of this Indenture or to remove the Issuer or any Guarantor as a party to any Intercreditor Agreement to the extent such party ceases to be bound by any and all First Priority Lien Obligations or (d) to accommodate and implement the Liens contemplated by clause (20)(z) of the definition of "Permitted Liens".

After an amendment under this Section 9.01 becomes effective, the Issuer shall provide to the Holders a written notice briefly describing such amendment. The failure to give such notice to all Holders, or any defect therein, shall not impair or affect the validity of an amendment under this Section 9.01.

SECTION 9.02. With Consent of the Holders.

(a) The Issuer, the Collateral Agent, the Guarantors and the Trustee may amend or supplement this Indenture, the Securities, the Security Documents and the Intercreditor Agreements, and may waive any provision thereof (including the provisions of Section 4.08), with the written consent of the Holders of a majority in principal amount of the Securities then outstanding voting as a single class (including consents obtained in connection with a tender offer or exchange for the Securities). However, without the consent of each Holder of an outstanding Security affected, an amendment, supplement or waiver may not:

- (i) reduce the amount of Securities, whose Holders must consent to an amendment,
- (ii) reduce the rate of or extend the time for payment of interest on any Security,
- (iii) reduce the principal of or change the Stated Maturity of any Security (or the due date in respect of the payment of any installment of principal),
- (iv) reduce the premium payable upon the redemption of any Security or change the time at which any Security may be redeemed in accordance with Article 3,
- (v) make any Security payable in money other than that stated in such Security,
- (vi) expressly subordinate the Securities or any Guarantees to any other Indebtedness of the Issuer or any Guarantor,
- (vii) impair the right of any Holder to receive payment of principal of or premium, if any, and interest on such Holder's Securities on or after the due dates (or the due date in respect of the payment of any installment of principal) therefor or to institute suit for the enforcement of any payment on or with respect to such Holder's Securities,
- (viii) make any change in Section 6.04 or the second sentence of this Section 9.02,
- (ix) modify any Guarantees in any manner adverse to the Holders, or
- (x) make any change in the provisions in this Indenture or the Intercreditor Agreements dealing with the application of proceeds of Notes Collateral that would adversely affect the Holders of the Securities.

Without the consent of the Holders of at least two-thirds in aggregate principal amount of the Securities then outstanding or as otherwise provided in the Intercreditor Agreements, no amendment, supplement or waiver may release all or substantially all of the Notes Collateral from the Lien of this Indenture and the Security Documents with respect to the Securities.

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

(b) After an amendment under this Section 9.02 becomes effective, the Issuer shall provide to the Holders a written notice briefly describing such amendment. The failure to give such notice to all Holders, or any defect therein, shall not impair or affect the validity of an amendment under this Section 9.02.

SECTION 9.03. Revocation and Effect of Consents and Waivers.

(a) A consent to an amendment, supplement or a waiver by a Holder of a Security shall bind the Holder and every subsequent Holder of that Security or portion of the Security that evidences the same debt as the consenting Holder's Security, even if notation of the consent, supplement or waiver is not made on the Security. However, any such Holder or subsequent Holder may revoke the consent, supplement or waiver as to such Holder's Security or portion of the Security if the Trustee receives the notice of revocation before the date on which the Trustee receives an Officers' Certificate from the Issuer certifying that the requisite principal amount of Securities have consented. After an amendment, supplement or waiver becomes effective, it shall bind every Holder. An amendment, supplement or waiver becomes effective upon the (i) receipt by the Issuer or the Trustee of consents by the Holders of the requisite principal amount of Securities, (ii) satisfaction of conditions to effectiveness as set forth in this Indenture and any indenture supplemental hereto containing such amendment, supplement or waiver, (iii) execution of such amendment or waiver (or supplemental indenture) by the Issuer and the Trustee and (iv) delivery to the Trustee of the Officers' Certificate and Opinion of Counsel required under Article 12.

(b) The Issuer may, but shall not be obligated to, fix a record date for the purpose of determining the Holders entitled to give their consent or take any other action described above or required or permitted to be taken pursuant to this Indenture. If a record date is fixed, then notwithstanding Section 9.03(a), those Persons who were Holders at such record date (or their duly designated proxies), and only those Persons, shall be entitled to give such consent or to revoke any consent previously given or to take any such action, whether or not such Persons continue to be Holders after such record date. No such consent shall be valid or effective for more than 120 days after such record date.

SECTION 9.04. Notation on or Exchange of Securities. If an amendment, supplement or waiver changes the terms of a Security, the Issuer may require the Holder of the Security to deliver it to the Trustee. The Trustee may place an appropriate notation on the Security regarding the changed terms and return it to the Holder. Alternatively, if the Issuer or the Trustee so determines, the Issuer in exchange for the Security shall issue and the Trustee shall authenticate a new Security that reflects the changed terms. Failure to make the appropriate notation or to issue a new Security shall not affect the validity of such amendment, supplement or waiver.

SECTION 9.05. Trustee to Sign Amendments. The Trustee shall sign any amendment, supplement or waiver authorized pursuant to this Article 9 if the amendment does not adversely affect the rights, duties, liabilities or immunities of the Trustee. If it does, the Trustee may but need not sign it. In signing such amendment, the Trustee shall be entitled to receive indemnity reasonably satisfactory to it and shall be provided with, and (subject to Section 7.01) shall be fully protected in relying upon, an Officers' Certificate and an Opinion of Counsel stating that such amendment, supplement or waiver is authorized or permitted by this Indenture and that such amendment, supplement or waiver is the legal, valid and binding obligation of the Issuer and the Guarantors, enforceable against them in accordance with its terms, subject to customary exceptions, and complies with the provisions hereof (including Section 9.03).

SECTION 9.06. Payment for Consent. Neither the Issuer nor any Affiliate of the Issuer shall, directly or indirectly, pay or cause to be paid any consideration, whether by way of interest, fee or otherwise, to any Holder for or as an inducement to any consent, waiver or amendment of any of the terms or provisions of this Indenture or the Securities unless such consideration is offered to be paid to all Holders that so consent, waive or agree to amend in the time frame set forth in solicitation documents relating to such consent, waiver or agreement.

SECTION 9.07. Additional Voting Terms; Calculation of Principal Amount. All Securities issued under this Indenture shall vote and consent together on all matters (as to which any of such Securities may vote) as one class. Determinations as to whether Holders of the requisite aggregate principal amount of Securities have concurred in any direction, waiver or consent shall be made in accordance with this Article 9 and Section 2.14.

ARTICLE 10

GUARANTEES

SECTION 10.01. Guarantees.

(a) Each Guarantor hereby jointly and severally irrevocably and unconditionally guarantees as a primary obligor and not merely as a surety on a senior basis to each Holder and to the Trustee and its successors and assigns (i) the full and punctual payment when due, whether at Stated Maturity, by acceleration, by redemption or otherwise, of all obligations of the Issuer under this Indenture (including obligations to the Trustee) and the Securities, whether for payment of principal of, or premium, if any, or interest on, the Securities and all other monetary obligations of the Issuer under this Indenture and the Securities, and (ii) the full and punctual performance within applicable grace periods of all other obligations of the Issuer, whether for fees, expenses, indemnification or otherwise under this Indenture and the Securities (all the foregoing being hereinafter collectively called the "Guaranteed Obligations"). Each Guarantor further agrees that the Guaranteed Obligations may be extended or renewed, in whole or in part, without notice or further assent from each such Guarantor, and that each such Guarantor shall remain bound under this Article 10 notwithstanding any extension or renewal of

any Guaranteed Obligation. The Guaranteed Obligations of a Guarantor will be secured by security interests (subject to Permitted Liens) in the Notes Collateral owned by such Guarantor to the extent provided for in the Security Documents and as required pursuant to Sections 4.11 and 4.13.

(b) Each Guarantor waives presentation to, demand of payment from and protest to the Issuer of any of the Guaranteed Obligations and also waives notice of protest for nonpayment. Each Guarantor waives notice of any default under the Securities or the Guaranteed Obligations. The obligations of each Guarantor hereunder shall not be affected by (i) the failure of any Holder, the Trustee or the Collateral Agent to assert any claim or demand or to enforce any right or remedy against the Issuer or any other Person under this Indenture, the Securities, any Security Document, or any other agreement or otherwise; (ii) any extension or renewal of this Indenture, the Securities, any Security Document or any other agreement; (iii) any rescission, waiver, amendment or modification of any of the terms or provisions of this Indenture, the Securities, any Security Document or any other agreement; (iv) the release of any security held by any Holder, the Trustee or the Collateral Agent for the Guaranteed Obligations or any Guarantor; (v) the failure of any Holder, the Trustee or the Collateral Agent to exercise any right or remedy against any other guarantor of the Guaranteed Obligations; or (vi) any change in the ownership of such Guarantor, except as provided in Section 10.02(b).

(c) Each Guarantor hereby waives any right to which it may be entitled to have its obligations hereunder divided among the Guarantors, such that such Guarantor's obligations would be less than the full amount claimed. Each Guarantor hereby waives any right to which it may be entitled to have the assets of the Issuer or any other Guarantor first be used and depleted as payment of the Issuer's or such Guarantor's obligations hereunder prior to any amounts being claimed from or paid by such Guarantor hereunder. Each Guarantor hereby waives any right to which it may be entitled to require that the Issuer be sued prior to an action being initiated against such Guarantor.

(d) Each Guarantor further agrees that its Guarantee herein constitutes a guarantee of payment, performance and compliance when due (and not a guarantee of collection) and waives any right to require that any resort be had by any Holder, the Trustee or the Collateral Agent to any security held for payment of the Guaranteed Obligations.

(e) Except as expressly set forth in Sections 8.01 and 10.02, the obligations of each Guarantor hereunder shall not be subject to any reduction, limitation, impairment or termination for any reason, including any claim of waiver, release, surrender, alteration or compromise, and shall not be subject to any defense of setoff, counterclaim, recoupment or termination whatsoever or by reason of the invalidity, illegality or unenforceability of the Guaranteed Obligations or otherwise. Without limiting the generality of the foregoing, the obligations of each Guarantor herein shall not be discharged or impaired or otherwise affected by the failure of any Holder, the Trustee or the Collateral Agent to assert any claim or demand or to enforce any remedy under this Indenture, the Securities, any Security Document or any other agreement, by any waiver or modification of any thereof, by any default, failure or delay, willful or otherwise, in the performance of the obligations, or by any other act or thing or omission or delay to do any other act or thing that may or might in any manner or to any extent vary the risk of any Guarantor or would otherwise operate as a discharge of any Guarantor as a matter of law or equity.

(f) Except as expressly set forth in Sections 8.01 and 10.02, each Guarantor agrees that its Guarantee shall remain in full force and effect until payment in full of all the Guaranteed Obligations. Except as expressly set forth in Sections 8.01 and 10.02, each Guarantor further agrees that its Guarantee herein shall continue to be effective or be reinstated, as the case may be, if at any time payment, or any part thereof, of principal of or interest on any Guaranteed Obligation is rescinded or must otherwise be restored by any Holder or the Trustee upon the bankruptcy or reorganization of the Issuer or otherwise.

(g) In furtherance of the foregoing and not in limitation of any other right that any Holder, the Trustee or the Collateral Agent has at law or in equity against any Guarantor by virtue hereof, upon the failure of the Issuer to pay the principal of or interest on any Guaranteed Obligation when and as the same shall become due, whether at maturity, by acceleration, by redemption or otherwise, or to perform or comply with any other Guaranteed Obligation, each Guarantor hereby promises to and shall, upon receipt of written demand by the Trustee in accordance with this Indenture, forthwith pay, or cause to be paid, in cash, to the Holders, the Trustee or the Collateral Agent an amount equal to the sum of (i) the unpaid principal amount of such Guaranteed Obligations, (ii) accrued and unpaid interest on such Guaranteed Obligations (but only to the extent not prohibited by applicable law) and (iii) all other monetary obligations of the Issuer then due to the Holders, the Trustee and the Collateral Agent in respect of the Guaranteed Obligations.

(h) Each Guarantor agrees that it shall not be entitled to any right of subrogation in relation to the Holders in respect of any Guaranteed Obligations guaranteed hereby until payment in full of all Guaranteed Obligations. Each Guarantor further agrees that, as between it, on the one hand, and the Holders, the Trustee and the Collateral Agent, on the other hand, (i) the maturity of the Guaranteed Obligations guaranteed hereby may be accelerated as provided in Article 6 for the purposes of any Guarantee herein, notwithstanding any stay, injunction or other prohibition preventing such acceleration in respect of the Guaranteed Obligations guaranteed hereby, and (ii) in the event of any declaration of acceleration of such Guaranteed Obligations as provided in Article 6, such Guaranteed Obligations (whether or not due and payable) shall forthwith become due and payable by such Guarantor for the purposes of this Section 10.01.

(i) Each Guarantor also agrees to pay any and all costs and expenses (including reasonable attorneys' fees and expenses) incurred by the Trustee, the Collateral Agent or any Holder in enforcing any rights under this Section 10.01.

(j) Each Guarantor shall execute and deliver such further instruments and do such further acts as may be reasonably necessary or proper to carry out more effectively the purpose of this Indenture.

SECTION 10.02. Limitation on Liability.

(a) Any term or provision of this Indenture to the contrary notwithstanding, the maximum aggregate amount of the Guaranteed Obligations guaranteed hereunder by any Guarantor shall not exceed the maximum amount that can be guaranteed hereby without rendering the Guarantee, as it relates to such Guarantor, voidable under applicable laws relating to fraudulent conveyance or fraudulent transfer or similar laws affecting the rights of creditors generally.

(b) A Guarantee as to any Guarantor shall terminate and be of no further force or effect and such Guarantor shall be deemed to be automatically released from all obligations under this Article 10 upon:

(i) the sale, disposition, exchange or other transfer (including through merger, consolidation, amalgamation or otherwise) of the Capital Stock (including any sale, disposition or other transfer following which the applicable Guarantor is no longer a Restricted Subsidiary), or all or substantially all the assets, of the applicable Guarantor if such sale, disposition, exchange or other transfer is made in a manner not in violation of this Indenture;

(ii) the Issuer designating such Guarantor to be an Unrestricted Subsidiary in accordance with the provisions set forth in Section 4.04 and the definition of "Unrestricted Subsidiary";

(iii) such Guarantor ceasing to be a Wholly Owned Restricted Subsidiary in a manner not in violation of this Indenture; or

(iv) the Issuer's exercise of the Issuer's legal defeasance option or covenant defeasance option in accordance with Section 8.01 or if the obligations of the Issuer and such Guarantor under this Indenture are discharged in accordance with the terms of this Indenture.

SECTION 10.03. Successors and Assigns. This Article 10 shall be binding upon each Guarantor and its successors and assigns and shall inure to the benefit of the Trustee, the Collateral Agent and the Holders and their successors and assigns and, in the event of any transfer or assignment of rights by any Holder, the Collateral Agent or the Trustee, the rights and privileges conferred upon that party in this Indenture and in the Securities shall automatically extend to and be vested in such transferee or assignee, all subject to the terms and conditions of this Indenture.

SECTION 10.04. No Waiver. Neither a failure nor a delay on the part of the Trustee, the Collateral Agent or the Holders in exercising any right, power or privilege under this Article 10 shall operate as a waiver thereof, nor shall a single or partial exercise thereof preclude any other or further exercise of any right, power or privilege. The rights, remedies and benefits of the Trustee, the Collateral Agent and the Holders herein expressly specified are cumulative and not exclusive of any other rights, remedies or benefits that any of them may have under this Article 10 at law, in equity, by statute or otherwise.

SECTION 10.05. Modification. No modification, amendment or waiver of any provision of this Article 10, nor the consent to any departure by any Guarantor therefrom, shall in any event be effective unless the same shall be in writing and signed by the Trustee, and then such waiver or consent shall be effective only in the specific instance and for the purpose for which given. No notice to or demand on any Guarantor in any case shall entitle such Guarantor to any other or further notice or demand in the same, similar or other circumstances.

SECTION 10.06. Execution of Supplemental Indenture for Future Guarantors. Each Person that is required to become a Guarantor after the Issue Date pursuant to Section 4.10 shall promptly execute and deliver to the Trustee a supplemental indenture in the form of Exhibit B hereto pursuant to which such Person shall become a Guarantor under this Article 10 and shall guarantee the Guaranteed Obligations. Concurrently with the execution and delivery of such supplemental indenture, the Issuer shall deliver to the Trustee an Opinion of Counsel and an Officers' Certificate to the effect that such supplemental indenture has been duly authorized, executed and delivered by such Person and that, subject to the application of bankruptcy, insolvency, moratorium, fraudulent conveyance or transfer and other similar laws relating to creditors' rights generally and to the principles of equity, whether considered in a proceeding at law or in equity, and other appropriate qualifications, the Guarantee of such Guarantor is a legal, valid and binding obligation of such Guarantor, enforceable against such Guarantor in accordance with its terms and/or to such other matters as the Trustee may reasonably request.

SECTION 10.07. No Impairment. The failure to endorse a Guarantee on any Security shall not affect or impair the validity thereof.

ARTICLE 11

SECURITY DOCUMENTS

SECTION 11.01. Collateral and Security Documents. The due and punctual payment of the principal of and interest on the Securities when and as the same shall be due and payable, whether on an Payment Date, at Stated Maturity, or by acceleration, repurchase, redemption or otherwise, and interest on the overdue principal of and interest on the Securities and performance of all other Guaranteed Obligations of the Issuer and the Guarantors to the Holders, the Trustee or the Collateral Agent under this Indenture, the Securities, the Intercreditor Agreements and the Security Documents, according to the terms hereunder or thereunder, shall be secured as provided in the Security Documents, which define the terms of the Liens that secure the Guaranteed Obligations, subject to the terms of the Intercreditor Agreements. The Trustee and the Issuer hereby acknowledge and agree that the Collateral Agent holds the Notes Collateral in trust for the benefit of the Trustee and the Holders, in each case pursuant to the terms of the Security Documents and the Intercreditor Agreements. Each Holder, by accepting a Security, appoints U.S. Bank National Association as Collateral Agent and consents and agrees to the terms of the Security Documents (including the provisions providing for the possession, use, release and foreclosure of Notes Collateral) and the Intercreditor Agreements as the same may be in effect or may be amended from time to time in accordance with their respective terms and this Indenture, and authorizes and directs the Trustee to enter into the Security Documents and the Intercreditor Agreements and to bind the Holders to the terms thereof and to perform its obligations and exercise its rights thereunder in accordance therewith. The Issuer shall deliver to

the Trustee (if it is not then also appointed and serving as Collateral Agent) copies of all documents delivered to the Collateral Agent pursuant to the Security Documents, and will do or cause to be done all such acts and things as may be reasonably required by the next sentence of this Section 11.01, to assure and confirm to the Trustee and the Collateral Agent the Liens on the Notes Collateral contemplated hereby, by the Security Documents or by any part thereof, as from time to time constituted, so as to render the same available for the security and benefit of this Indenture and of the Securities secured hereby, according to the intent and purposes herein expressed. The Issuer shall take, and shall cause the Guarantors to take, any and all actions reasonably required to cause the Security Documents to create and maintain at all times, as security for the Obligations of the Issuer and the Guarantors hereunder, a valid and enforceable perfected Lien on all of the Notes Collateral (subject to the terms of the Security Documents and the Intercreditor Agreements), in favor of the Collateral Agent for the benefit of the Trustee and the Holders under the Security Documents.

SECTION 11.02. {Omitted}.

SECTION 11.03. Release of Collateral.

(a) Subject to Section 11.03(b) and 11.04, the Notes Collateral may be released from the Lien and security interest created by the Security Documents at any time or from time to time in accordance with the provisions of the Security Documents or the Intercreditor Agreements or as provided hereby. The Issuer and the Guarantors will be entitled to a release of assets included in the Notes Collateral from the Liens securing the Securities, and the Trustee shall release, or instruct the Collateral Agent to release, as applicable, the same from such Liens at the Issuer's sole cost and expense, under one or more of the following circumstances:

(1) to enable the Issuer or any Restricted Subsidiary to sell, exchange or otherwise dispose of any of the Notes Collateral to any Person other than the Issuer or any Restricted Subsidiary (but excluding any transaction subject to Section 5.01 where the recipient is required to become the obligor on the Securities or a Guarantee) to the extent not prohibited by this Indenture, including Section 4.06;

(2) to release Excess Proceeds or Notes Collateral Excess Proceeds that remain unexpended after the conclusion of an Asset Sale Offer or Notes Collateral Asset Sale Offer conducted in accordance with this Indenture;

(3) in the case of a Guarantor that is released from its Guarantee with respect to the Securities in accordance with this Indenture, the release of the property and assets of such Guarantor;

(4) in respect of the property and assets of a Guarantor, upon the designation of such Guarantor to be an Unrestricted Subsidiary in accordance with Section 4.04 and the definition of "Unrestricted Subsidiary";

(5) in respect of the ABL Collateral (x) to the extent any first-priority liens on such ABL Collateral are released by the First Lien Agent in connection with a disposition of ABL Collateral to the extent not prohibited under Section 4.06 (except with respect to

any proceeds of such disposition that remain after satisfaction in full of the First Priority Lien Obligations secured by such ABL Collateral) or (y) in accordance with an Intercreditor Agreement;

(6) pursuant to an amendment, supplement or waiver in accordance with Article 9; or

(7) if the Securities have been defeased pursuant to Section 8.01 or if this Indenture is discharged pursuant to Section 8.01.

Notwithstanding the existence of any Event of Default, the second-priority lien on the ABL Collateral securing the Securities shall terminate and be released automatically to the extent the first-priority liens on the ABL Collateral are released by the First Lien Agent in connection with a sale, transfer or disposition of ABL Collateral that is either not prohibited under this Indenture or occurs in connection with the foreclosure of, or other exercise of remedies with respect to, such ABL Collateral by the First Lien Agent (except with respect to any proceeds of such sale, transfer or disposition that remain after satisfaction in full of the First Priority Lien Obligations).

Upon receipt of an Officers' Certificate certifying that all conditions precedent under this Indenture and the Security Documents, if any, to such release have been met and any necessary or proper instruments of termination, satisfaction or release have been prepared by the Issuer, the Collateral Agent shall execute, deliver or acknowledge (at the Issuer's expense) such instruments or releases to evidence the release of any Notes Collateral permitted to be released pursuant to this Indenture or the Security Documents or the Intercreditor Agreements.

(b) At any time when a Default or Event of Default has occurred and is continuing and the maturity of the Securities has been accelerated (whether by declaration or otherwise) and the Trustee (if not then also appointed and serving as Collateral Agent) has delivered a notice of acceleration to the Collateral Agent, no release of Notes Collateral pursuant to the provisions of this Indenture or the Security Documents will be effective as against the Holders, except as otherwise provided in the Intercreditor Agreements.

SECTION 11.04. Permitted Releases Not To Impair Lien. The release of any Notes Collateral from the terms hereof and of the Security Documents or the release of, in whole or in part, the Liens created by the Security Documents, will not be deemed to impair the security under this Indenture in contravention of the provisions hereof if and to the extent the Notes Collateral or Liens are released pursuant to (x) the applicable Security Documents and the terms of this Article 11 or (y) the Intercreditor Agreements. Each of the Holders acknowledges that a release of Notes Collateral or a Lien in accordance with the terms of the Security Documents and the Intercreditor Agreements and of this Article 11 will not be deemed for any purpose to be in contravention of the terms of this Indenture.

SECTION 11.05. Suits To Protect the Collateral. Subject to the provisions of Article 7 and the Intercreditor Agreements, the Trustee in its sole discretion and without the consent of the Holders, on behalf of the Holders, may or may direct the Collateral Agent to take all actions it deems necessary or appropriate in order to:

(a) enforce any of the terms of the Security Documents; and

(b) collect and receive any and all amounts payable in respect of the Guaranteed Obligations of the Issuer hereunder.

Subject to the provisions of the Security Documents and the Intercreditor Agreements, the Trustee shall have the power (but not the obligation) to institute and to maintain such suits and proceedings as it may deem expedient to prevent any impairment of the Notes Collateral by any acts that may be unlawful or in violation of any of the Security Documents or this Indenture, and such suits and proceedings as the Trustee, in its sole discretion, may deem expedient to preserve or protect its interests and the interests of the Holders in the Notes Collateral (including the power to institute and maintain suits or proceedings to restrain the enforcement of or compliance with any legislative or other governmental enactment, rule or order that may be unconstitutional or otherwise invalid if the enforcement of, or compliance with, such enactment, rule or order would impair the Lien on the Notes Collateral or be prejudicial to the interests of the Holders or the Trustee).

SECTION 11.06. Authorization of Receipt of Funds by the Trustee Under the Security Documents. Subject to the provisions of the Intercreditor Agreements, the Trustee is authorized (a) to receive any funds for the benefit of the Holders distributed under the Security Documents and (b) to make further distributions of such funds to the Holders according to the provisions of this Indenture.

SECTION 11.07. Purchaser Protected. In no event shall any purchaser in good faith of any property purported to be released hereunder be bound to ascertain the authority of the Collateral Agent or the Trustee to execute the release or to inquire as to the satisfaction of any conditions required by the provisions hereof for the exercise of such authority or to see to the application of any consideration given by such purchaser or other transferee; nor shall any purchaser or other transferee of any property or rights permitted by this Article 11 to be sold be under any obligation to ascertain or inquire into the authority of the Issuer or the applicable Guarantor to make any such sale or other transfer.

SECTION 11.08. Powers Exercisable by Receiver or Trustee. In case the Notes Collateral shall be in the possession of a receiver or trustee, lawfully appointed, the powers conferred in this Article 11 upon the Issuer or a Guarantor with respect to the release, sale or other disposition of such property may be exercised by such receiver or trustee, and an instrument signed by such receiver or trustee shall be deemed the equivalent of any similar instrument of the Issuer or a Guarantor or of any officer or officers thereof required by the provisions of this Article 11; and if the Trustee shall be in the possession of the Notes Collateral under any provision of this Indenture, then such powers may be exercised by the Trustee.

SECTION 11.09. Release Upon Termination of the Issuer's Obligations. In the event that the Issuer delivers to the Trustee, in form and substance reasonably acceptable to the Trustee, an Officers' Certificate certifying that (i) payment in full of the principal of, together with premium, if any, and accrued and unpaid interest on, the Securities and all other Obligations with respect to the Securities under this Indenture, the Guarantees and the Security Documents that are due and payable at or prior to the time such principal, together with premium, if any, and

accrued and unpaid interest (including additional interest, if any), are paid, (ii) all the Obligations under this Indenture, the Securities and the Security Documents have been satisfied and discharged by complying with the provisions of Article 8 or (iii) the Issuer shall have exercised its legal defeasance option or its covenant defeasance option, in each case in compliance with the provisions of Article 8, the Trustee shall deliver to the Issuer and the Collateral Agent a notice stating that the Trustee, on behalf of the Holders, disclaims and gives up any and all rights it has in or to the Notes Collateral (other than with respect to funds held by the Trustee pursuant to Article 8), and any rights it has under the Security Documents, and upon receipt by the Collateral Agent of such notice, the Collateral Agent shall be deemed not to hold a Lien in the Notes Collateral on behalf of the Trustee and shall do or cause to be done all acts reasonably necessary to release such Lien as soon as is reasonably practicable.

SECTION 11.10. Collateral Agent.

(a) U.S. Bank National Association shall initially act as Collateral Agent and shall be authorized to appoint co-Collateral Agents as necessary in its sole discretion. Except as otherwise explicitly provided herein or in the Security Documents or the Intercreditor Agreements, neither the Collateral Agent nor any of its officers, directors, employees or agents shall be liable for failure to demand, collect or realize upon any of the Notes Collateral or for any delay in doing so or shall be under any obligation to sell or otherwise dispose of any Notes Collateral upon the request of any other Person or to take any other action whatsoever with regard to the Notes Collateral or any part thereof. The Collateral Agent shall be accountable only for amounts that it actually receives as a result of the exercise of such powers, and neither the Collateral Agent nor any of its officers, directors, employees or agents shall be responsible for any act or failure to act hereunder, except for its own willful misconduct or gross negligence (as determined by a final, nonappealable order of a court of competent jurisdiction). The Collateral Agent is not a fiduciary for the Trustee or the Holders.

(b) The Collateral Agent is authorized and directed to (i) enter into the Security Documents, (ii) enter into the Intercreditor Agreements, (iii) bind the Holders on the terms as set forth in the Security Documents and the Intercreditor Agreements and (iv) perform and observe its obligations under the Security Documents and the Intercreditor Agreements.

(c) If the Issuer or Guarantors Incur any obligations in respect of any First Priority Lien Obligations at any time when no intercreditor agreement with respect thereto is in effect or at any time when Indebtedness constituting First Priority Lien Obligations entitled to the benefit of an existing intercreditor agreement is concurrently retired, the Issuer shall deliver to the Collateral Agent an Officers' Certificate so stating and requesting the Collateral Agent to enter into an Intercreditor Agreement in favor of a designated agent or representative for the holders of the First Priority Lien Obligations so Incurred, and the Trustee and the Collateral Agent shall (and are hereby authorized and directed to) enter into such Intercreditor Agreement, bind the Holders on the terms set forth therein and perform and observe their obligations thereunder.

(d) The Collateral Agent shall act pursuant to the instructions of the Holders and the Trustee with respect to the Security Documents and the Notes Collateral. For the avoidance of doubt, the Collateral Agent shall have no discretion under this Indenture, the

Intercreditor Agreements or the Security Documents and shall not be required to make or give any determination, consent, approval, request or direction without the written direction of the requisite Holders or the Trustee, as applicable. After the occurrence of an Event of Default, the Trustee may direct the Collateral Agent in connection with any action required or permitted by this Indenture, the Security Documents or the Intercreditor Agreements.

(e) The Collateral Agent shall not be deemed to have knowledge or notice of the occurrence of any Default or Event of Default, unless the Collateral Agent shall have received written notice from the Trustee, a Holder or the Issuer referring to this Indenture, describing such Default or Event of Default and stating that such notice is a "notice of default". The Collateral Agent shall take such action with respect to such Default or Event of Default as may be requested by the Trustee or the Holders of a majority in aggregate principal amount of the Securities subject to this Article 11.

(f) No provision of this Indenture or any Security Document shall require the Collateral Agent (or the Trustee) to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder or thereunder or to take or omit to take any action hereunder or thereunder or take any action at the request or direction of Holders (or the Trustee in the case of the Collateral Agent) if it shall have reasonable grounds for believing that repayment of such funds is not assured to it.

(g) The Collateral Agent shall be entitled to all of the protections, immunities, indemnities, rights and privileges of the Trustee set forth in this Indenture, and all such protections, immunities, indemnities, rights and privileges shall apply to the Collateral Agent in its roles under any Security Document or the Intercreditor Agreements, whether or not expressly stated therein.

ARTICLE 12

MISCELLANEOUS

SECTION 12.01. Notices.

(a) Any notice or communication required or permitted hereunder shall be in writing and delivered in person, via facsimile, via overnight courier or via first-class mail addressed as follows:

if to the Issuer or a Guarantor:

Merrimack Pharmaceuticals, Inc.
One Kendall Square, Suite B7201
Cambridge, Massachusetts 02139
Attention: Legal Department
Facsimile: (617) 812-8122

if to the Trustee or to the Collateral Agent:

U.S. Bank National Association
Corporate Trust Services
One Federal Street, 3rd Floor
Boston, Massachusetts 02110
Attention: Alison D.B. Nadeau
Facsimile: (617) 603-6683

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

(b) Any notice or communication mailed to a Holder shall be mailed, first-class mail, to the Holder at the Holder's address as it appears on the registration books of the Registrar and shall be sufficiently given if so mailed within the time prescribed.

(c) Failure to provide a notice or communication to a Holder or any defect in it shall not affect its sufficiency with respect to other Holders. If a notice or communication is mailed in the manner provided above, it is duly given and provided, whether or not the addressee receives it, except that notices to the Trustee are effective only if received.

SECTION 12.02. Certificate and Opinion as to Conditions Precedent. Upon any request or application by the Issuer to the Trustee to take or refrain from taking any action under this Indenture, the Issuer shall furnish to the Trustee at the request of the Trustee:

(a) an Officers' Certificate in form reasonably satisfactory to the Trustee stating that, in the opinion of the signers, all conditions precedent, if any, provided for in this Indenture relating to the proposed action have been complied with; and

(b) an Opinion of Counsel in form reasonably satisfactory to the Trustee stating that, in the opinion of such counsel, all such conditions precedent have been complied with.

SECTION 12.03. Statements Required in Certificate or Opinion. Each certificate or opinion with respect to compliance with a covenant or condition provided for in this Indenture (other than pursuant to Section 4.02(c)) shall include:

(a) a statement that the individual making such certificate or opinion has read such covenant or condition;

(b) a brief statement as to the nature and scope of the examination or investigation upon which the statements or opinions contained in such certificate or opinion are based;

(c) a statement that, in the opinion of such individual, he or she has made such examination or investigation as is necessary to enable him or her to express an informed opinion as to whether or not such covenant or condition has been complied with; and

(d) a statement as to whether or not, in the opinion of such individual, such covenant or condition has been complied with; provided, however, that with respect to matters of fact an Opinion of Counsel may rely on an Officers' Certificate or certificates of public officials.

SECTION 12.04. When Securities Disregarded. In determining whether the Holders of the required principal amount of Securities have concurred in any direction, waiver or consent, Securities owned by the Issuer, any Guarantor or by any Person directly or indirectly controlling or controlled by or under direct or indirect common control with the Issuer or any Guarantor shall be disregarded and deemed not to be outstanding, except that, for the purpose of determining whether the Trustee shall be protected in relying on any such direction, waiver or consent, only Securities that the Trustee knows are so owned shall be so disregarded. Subject to the foregoing, only Securities outstanding at the time shall be considered in any such determination. Notwithstanding the foregoing, if any such Person or Persons owns 100% of the Securities, such Securities shall not be so disregarded as aforesaid.

SECTION 12.05. Rules by Trustee, Paying Agent and Registrar. The Trustee may make reasonable rules for action by or a meeting of the Holders. The Registrar and a Paying Agent may make reasonable rules for their functions.

SECTION 12.06. Legal Holidays. If a Payment Date is not a Business Day, payment shall be made on the next succeeding day that is a Business Day, and no interest shall accrue on any amount that would have been otherwise payable on such Payment Date if it were a Business Day for the intervening period. If a Record Date is not a Business Day, the Record Date shall not be affected.

SECTION 12.07. **GOVERNING LAW; SUBMISSION TO JURISDICTION; WAIVER OF IMMUNITY. THIS INDENTURE, THE SECURITIES, THE SECURITY DOCUMENTS AND THE INTERCREDITOR AGREEMENTS SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK, WITHOUT REGARD TO PRINCIPLES OF CONFLICTS OF LAW (OTHER THAN SECTIONS 5-1401 AND 5-1402 OF THE NEW YORK GENERAL OBLIGATIONS LAW) EXCEPT TO THE EXTENT THAT LOCAL LAW GOVERNS THE CREATION, PERFECTION, PRIORITY OR ENFORCEMENT OF SECURITY INTERESTS.** The Issuer, the Guarantors, the Trustee and, by its acceptance of a Security, each Holder (and holder of beneficial interests in a Security) hereby submit to the non-exclusive jurisdiction of the federal and state courts of competent jurisdiction in the Borough of Manhattan in The City of New York in any suit or proceeding arising out of or relating to this Indenture or the transactions contemplated hereby. To the extent that the Issuer or any Guarantor may in any jurisdiction claim for itself or its assets immunity (to the extent such immunity may now or hereafter exist, whether on the grounds of sovereign immunity or otherwise) from suit, execution, attachment (whether in aid of execution, before judgment or otherwise) or other legal process (whether through service of notice or otherwise), and to the extent that in any such jurisdiction there may be attributed to itself or its assets such immunity (whether or not claimed), such Issuer or Guarantor, as applicable, irrevocably agrees with respect to any matter arising under this Indenture for the benefit of the Holders not to claim, and irrevocably waives, such immunity to the full extent permitted by the laws of such jurisdiction.

SECTION 12.08. No Recourse Against Others. No director, officer, employee, manager, incorporator or holder of any Equity Interests in the Issuer or in any Guarantor, as such, shall have any liability for any obligations of the Issuer or the Guarantors under the Securities, this Indenture or the Guarantees or for any claim based on, in respect of, or by reason of, such obligations or their creation. Each Holder of Securities by accepting a Security waives and releases all such liability. The waiver and release are part of the consideration for issuance of the Securities.

SECTION 12.09. Successors. All agreements of the Issuer and each Guarantor in this Indenture and the Securities shall bind its successors. All agreements of the Trustee in this Indenture shall bind its successors.

SECTION 12.10. Multiple Originals. The parties may sign any number of copies of this Indenture. Each signed copy shall be an original, but all of them together represent the same agreement. One signed copy is enough to prove this Indenture.

SECTION 12.11. Table of Contents; Headings. The table of contents and headings of the Articles and Sections of this Indenture have been inserted for convenience of reference only, are not intended to be considered a part hereof and shall not modify or restrict any of the terms or provisions hereof.

SECTION 12.12. Indenture Controls. If and to the extent that any provision of the Securities limits, qualifies or conflicts with a provision of this Indenture, such provision of this Indenture shall control.

SECTION 12.13. Severability. In case any provision in this Indenture shall be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby and such provision shall be ineffective only to the extent of such invalidity, illegality or unenforceability.

SECTION 12.14. Currency of Account; Conversion of Currency; Foreign Exchange Restrictions.

(a) U.S. Dollars are the sole currency of account and payment for all sums payable by the Issuer and the Guarantors under or in connection with the Securities, the Guarantees and this Indenture, including damages related thereto. Any amount received or recovered in a currency other than U.S. Dollars by a Holder (whether as a result of, or as a result of the enforcement of, a judgment or order of a court of any jurisdiction, in the winding-up or dissolution of the Issuer or otherwise) in respect of any sum expressed to be due to it from the Issuer or a Guarantor shall only constitute a discharge to the Issuer or any such Guarantor to the extent of the U.S. Dollar amount, which the recipient is able to purchase with the amount so received or recovered in that other currency on the date of that receipt or recovery (or, if it is not practicable to make that purchase on that date, on the first date on which it is practicable to do so). If that U.S. Dollar amount is less than the U.S. Dollar amount expressed to be due to the recipient under the applicable Securities, the Issuer and the Guarantors shall indemnify it against any loss sustained by it as a result as set forth in Section 12.14(b). In any event, the Issuer and the Guarantors shall indemnify the recipient against the cost of making any such purchase. For

the purposes of this Section 12.14, it will be sufficient for the Holder of a Security to certify in a satisfactory manner (indicating sources of information used) that it would have suffered a loss had an actual purchase of U.S. Dollars been made with the amount so received in that other currency on the date of receipt or recovery (or, if a purchase of U.S. Dollars on such date had not been practicable, on the first date on which it would have been practicable, it being required that the need for a change of date be certified in the manner mentioned above).

(b) The Issuer and the Guarantors, jointly and severally, covenant and agree that the following provisions shall apply to conversion of currency in the case of the Securities, the Guarantees and this Indenture:

(i) The following apply:

(A) If for the purpose of obtaining judgment in, or enforcing the judgment of, any court in any country, it becomes necessary to convert into a currency (the "Judgment Currency") an amount due in any other currency (the "Base Currency"), then the conversion shall be made at the rate of exchange prevailing on the Business Day before the day on which the judgment is given or the order of enforcement is made, as the case may be (unless a court shall otherwise determine).

(B) If there is a change in the rate of exchange prevailing between the Business Day before the day on which the judgment is given or an order of enforcement is made, as the case may be (or such other date as a court shall determine), and the date of receipt of the amount due, the Issuer and the Guarantors will pay such additional (or, as the case may be, such lesser) amount, if any, as may be necessary so that the amount paid in the Judgment Currency when converted at the rate of exchange prevailing on the date of receipt will produce the amount in the Base Currency originally due.

(ii) In the event of the winding-up of the Issuer or any Guarantor at any time while any amount or damages owing under the Securities, the Guarantees and this Indenture, or any judgment or order rendered in respect thereof, shall remain outstanding, the Issuer and the Guarantors shall indemnify and hold the Holders and the Trustee harmless against any deficiency arising or resulting from any variation in rates of exchange between (1) the date as of which the foreign currency equivalent of the amount due or contingently due under the Securities, the Guarantees and this Indenture (other than under this subsection (b)(ii)) is calculated for the purposes of such winding-up and (2) the final date for the filing of proofs of claim in such winding-up. For the purpose of this subsection (b)(ii), the final date for the filing of proofs of claim in the winding-up of the Issuer or any Guarantor shall be the date fixed by the liquidator or otherwise in accordance with the relevant provisions of applicable law as being the latest practicable date as at which liabilities of the Issuer or such Guarantor may be ascertained for such winding-up prior to payment by the liquidator or otherwise in respect thereto.

(c) The obligations contained in subsections (a), (b)(i)(B) and (b)(ii) of this Section 12.14 shall constitute separate and independent obligations from the other obligations of the Issuer and the Guarantors under this Indenture, shall give rise to separate and independent causes of action against the Issuer and the Guarantors, shall apply irrespective of any waiver or extension granted by any Holder or the Trustee or either of them from time to time and shall continue in full force and effect notwithstanding any judgment or order or the filing of any proof of claim in the winding-up of the Issuer or any Guarantor for a liquidated sum in respect of amounts due hereunder (other than under subsection (b)(ii) above) or under any such judgment or order. Any such deficiency as aforesaid shall be deemed to constitute a loss suffered by the Holders or the Trustee, as the case may be, and no proof or evidence of any actual loss shall be required by the Issuer or any Guarantor or the liquidator or otherwise or any of them. In the case of subsection (b)(ii) above, the amount of such deficiency shall not be deemed to be reduced by any variation in rates of exchange occurring between the said final date and the date of any liquidating distribution.

(d) The term “rate(s) of exchange” shall mean the rate of exchange quoted by Reuters at 10:00 a.m. (New York time) for spot purchases of the Base Currency with the Judgment Currency other than the Base Currency referred to in subsections (b)(i) and (b)(ii) above and includes any premiums and costs of exchange payable.

SECTION 12.15. Intercreditor Agreement Governs.

(a) The terms of this Indenture are subject to the Intercreditor Agreements. Each Holder, by its acceptance of a Security, (i) consents to the subordination of Liens provided for in the Intercreditor Agreements, (ii) agrees that it will be bound by and will take no actions contrary to the provisions of the Intercreditor Agreements and (iii) authorizes and instructs the Trustee to enter into the Intercreditor Agreements and the Collateral Agent to enter into the Intercreditor Agreements as Noteholder Collateral Agent (as defined therein) and to bind such Holder to the terms thereof, and, in each case, on behalf of such Holder. The foregoing provisions are intended as an inducement to the other lenders to the Issuer or any Guarantors acting as a secured party under the Intercreditor Agreements to extend credit and such lenders are intended third party beneficiaries of such provisions and the provisions of the Intercreditor Agreements. Pursuant to the authorization of each Holder, the Trustee and the Collateral Agent hereby agree to enter into Intercreditor Agreements substantially in the form attached hereto as Exhibit C from time to time upon the request of the Issuer, when accompanied by an Officers’ Certificate and Opinion of Counsel confirming compliance with all conditions precedent set forth herein. To the extent the provisions of this Indenture conflict or are inconsistent with the Intercreditor Agreements, each Holder (by accepting a Security), the Trustee and the Collateral Agent consents and agrees that the Intercreditor Agreements will control.

(b) Notwithstanding anything to the contrary herein, in this Indenture or in any Security Document or any ABL Document (as such term is defined in the Intercreditor Agreements), the Issuer and the Guarantors shall not be required to act or refrain from acting (i) pursuant to this Indenture or any Security Document solely with respect to any ABL First Lien Collateral (as such term is defined in the Intercreditor Agreements) in any manner that would cause a default under any ABL Document, or (ii) pursuant to any ABL Document solely with respect to any Noteholder First Lien Collateral (as such term is defined in the Intercreditor

Agreements) in any manner that would cause a default under this Indenture or any Security Document. For avoidance of doubt, and for the purposes of this paragraph only, the terms Security Document and ABL Document do not include the Intercreditor Agreements.

SECTION 12.16. Tax Matters.

(a) The Issuer has entered into this Indenture, and the Securities will be issued, with the intention that, for all tax purposes, the Securities will qualify as indebtedness. The Issuer, by entering into this Indenture, and each Holder and beneficial holder of Securities, agree to treat the Securities as indebtedness for all tax purposes.

(b) The Issuer shall not be obligated to pay any additional amounts to the Holders or beneficial holder of Securities as a result of any withholding or deduction for, or on account of, any present or future taxes imposed on payments in respect of the Securities. If a Global Security is issued, in accordance with the procedures of DTC, the Issuer shall (or shall direct the Trustee in writing to) request the Securities to be coded as eligible for the “portfolio interest exemption”. Unless otherwise required by applicable law, if Definitive Securities are issued, so long as a Person shall have delivered to the Issuer a properly completed IRS Form W-9, IRS Form W-8BEN, IRS Form W-8BEN-E, IRS Form W-8ECI or other applicable IRS form or, in the case of a Person claiming the exemption from U.S. federal withholding tax under Section 871(h) of the Code or Section 881(c) of the Code with respect to payments of “portfolio interest”, the appropriate properly completed IRS form together with a certificate substantially in the form of Exhibit F, in each case, establishing the Holder’s exemption from withholding tax, neither the Issuer nor the Trustee shall withhold taxes on payments of interest made to any such Person. Any such IRS Form W-8BEN or IRS Form W-8BEN-E shall specify whether the Holder or beneficial holder of Securities to whom the form relates is entitled to the benefits of any applicable income tax treaty.

(c) If Definitive Securities are issued, (i) if any withholding tax is imposed on the Issuer’s payment under the Securities to any Holder or beneficial holder of Securities, such tax shall reduce the amount otherwise distributable to such Holder or beneficial holder, as the case may be, (ii) the Trustee is hereby authorized and directed to retain from amounts otherwise distributable to any Holder or beneficial holder of Securities sufficient funds for the payment of any withholding tax that is legally owed by the Issuer (but such authorization shall not prevent the Trustee from contesting any such withholding tax in appropriate proceedings and withholding payment of such tax, if permitted by applicable law, pending the outcome of such proceedings) and (iii) the amount of any withholding tax imposed with respect to any Holder or beneficial holder of Securities shall be treated as cash distributed to such Holder or beneficial holder, as the case may be, at the time it is withheld by the Trustee and remitted to the appropriate taxing authority. If there is a possibility that withholding tax is payable with respect to a payment under the Securities, the Trustee may (but shall have no obligation to) withhold such amounts in accordance with this Section 12.16. Nothing herein shall impose an obligation on the part of the Trustee to determine the amount of any tax or withholding obligation on the part of the Issuer or in respect of the Securities.

SECTION 12.17. USA PATRIOT Act. The parties hereto acknowledge that in accordance with Section 326 of the USA 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 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 USA PATRIOT Act.

{Remainder of page intentionally left blank}

IN WITNESS WHEREOF, the parties have caused this Indenture to be duly executed as of the date first written above.

MERRIMACK PHARMACEUTICALS, INC.

By: /s/ Yasir B. Al-Wakeel
Name: Yasir B. Al-Wakeel
Title: Chief Financial Officer and Head of Corporate
Development

{Signature Page to the Indenture}

**U.S. BANK NATIONAL ASSOCIATION,
as Trustee**

By: /s/ Alison D.B. Nadeau

Name: Alison D.B. Nadeau

Title: Vice President

**U.S. BANK NATIONAL ASSOCIATION,
as Collateral Agent**

By: /s/ Alison D.B. Nadeau

Name: Alison D.B. Nadeau

Title: Vice President

{Signature Page to the Indenture}

PROVISIONS RELATING TO SECURITIES1. Definitions.1.1 Definitions.

For the purposes of this Appendix A, the following terms shall have the meanings indicated below (and if not defined in this Appendix A, capitalized terms used herein shall have the meaning set forth in this Indenture):

“Clearstream” means Clearstream Banking, S.A.

“Definitive Security” means a certificated Security (bearing the Restricted Securities Legend if the transfer of such Security is restricted by applicable law) that does not include the Global Securities Legend.

“Depository” means The Depository Trust Company, its nominees and their respective successors.

“Euroclear” means Euroclear Bank S.A./N.V., as operator of the Euroclear System.

“Global Securities Legend” means the legend set forth in Section 2.2(f)(ii) herein.

“Global Security” means a certificated Security (bearing the Restricted Securities Legend if the transfer of such Security is restricted by applicable law) that includes the Global Securities Legend. The term “Global Securities” includes Rule 144A Global Securities and Regulation S Global Securities.

“Purchase Agreement” means each Purchase Agreement dated December 22, 2015, between the Issuer and the purchaser(s) party thereto.

“QIB” means a “qualified institutional buyer” as defined in Rule 144A.

“Regulation S” means Regulation S under the Securities Act.

“Regulation S Securities” means all Securities offered and sold outside the United States in reliance on Regulation S.

“Restricted Period”, with respect to any Regulation S Securities, means the period of 40 consecutive days beginning on and including the later of (a) the day on which such Securities are first offered to persons other than distributors (as defined in Regulation S) in reliance on Regulation S, notice of which day shall be promptly given by the Issuer to the Trustee, and (b) the date of issuance of such Securities.

“Restricted Securities Legend” means the legend set forth in Section 2.2(f)(i) herein.

“Rule 144A” means Rule 144A under the Securities Act.

“Rule 144A Securities” means all Securities privately placed with QIBs.

“Rule 501” means Rule 501(a) under the Securities Act.

“Rule 506” means Rule 506 under the Securities Act.

“Securities Custodian” means the custodian with respect to a Global Security (as appointed by the Depository) or any successor person thereto, who shall initially be the Trustee.

“Transfer Restricted Definitive Securities” means Definitive Securities that bear or are required to bear or are subject to the Restricted Securities Legend.

“Transfer Restricted Global Securities” means Global Securities that bear or are required to bear or are subject to the Restricted Securities Legend.

“Unrestricted Definitive Securities” means Definitive Securities that are not required to bear, and are not subject to, the Restricted Securities Legend.

“Unrestricted Global Securities” means Global Securities that are not required to bear, and are not subject to, the Restricted Securities Legend.

“U.S. Person” means a “U.S. person” as defined in Regulation S.

1.2 Other Definitions.

<u>Term:</u>	<u>Defined in Section:</u>
Agent Members	2.1(b)
Regulation S Global Securities	2.1(b)
Rule 144A Global Securities	2.1(b)

2. The Securities.

2.1 Form and Dating; Global Securities.

(a) Issuance and Transfers. The Securities issued by the Issuer will be (i) privately placed by the Issuer pursuant to the Purchase Agreement and (ii) sold initially only to (1) QIBs and (2) Persons other than U.S. Persons in reliance on Regulation S. Such Securities may thereafter be transferred to, among others, QIBs and purchasers in reliance on Regulation S.

(b) Global Securities. (i) Except as provided in clause (c) below, Rule 144A Securities initially shall be represented by one or more Securities in definitive, fully registered, global form without interest coupons (collectively, the “Rule 144A Global Securities”).

Regulation S Securities initially shall be represented by one or more Securities in fully registered, global form without interest coupons (collectively, the “Regulation S Global Securities”), which shall be registered in the name of the Depository for the accounts of designated agents holding on behalf of Euroclear or Clearstream.

The provisions of the “Operating Procedures of the Euroclear System” and “Terms and Conditions Governing Use of Euroclear” and the “General Terms and Conditions of Clearstream Banking” and “Customer Handbook” of Clearstream shall be applicable to transfers of beneficial interests in the Regulation S Global Securities that are held through Euroclear or Clearstream.

The Global Securities shall bear the Global Securities Legend. The Global Securities initially shall (i) be registered in the name of the Depository, in each case for credit to an account of an Agent Member, (ii) be delivered to the Securities Custodian and (iii) bear the Restricted Securities Legend.

Members of, or direct or indirect participants in, the Depository (collectively, the “Agent Members”) shall have no rights under this Indenture with respect to any Global Security held on their behalf by the Depository, or the Trustee as its custodian, or under the Global Securities. The Depository may be treated by the Issuer, the Trustee and any agent of the Issuer or the Trustee as the absolute owner of the Global Securities for all purposes whatsoever. Notwithstanding the foregoing, nothing herein shall prevent the Issuer, the Trustee or any agent of the Issuer or the Trustee from giving effect to any written certification, proxy or other authorization furnished by the Depository, or impair, as between the Depository and its Agent Members, the operation of customary practices governing the exercise of the rights of a Holder of any Security.

The Registrar shall retain copies of all letters, notices, Confidentiality Agreements and other written communications received pursuant to this Section 2.1 or Section 2.2. The Issuer, at its sole cost and expense, shall have the right to inspect and make copies of all such letters, notices, Confidentiality Agreements or other written communications at any reasonable time upon the giving of reasonable written notice to the Registrar.

(ii) Transfers of Global Securities shall be limited to transfer in whole, but not in part, to the Depository. A Global Security shall be exchangeable for Definitive Securities if (x) the Depository (1) notifies the Issuer that it is unwilling or unable to continue as depository for such Global Security and the Issuer thereupon fails to appoint a successor depository or (2) has ceased to be a clearing agency registered under the Exchange Act or (y) there shall have occurred and be continuing an Event of Default with respect to such Global Security. In all cases, Definitive Securities delivered in exchange for any Global Security or beneficial interests therein shall be registered in the names, and issued in any approved denominations, requested by or on behalf of the Depository in accordance with its customary procedures.

(iii) In connection with the transfer of a Global Security as an entirety to beneficial owners pursuant to subsection (ii) of this Section 2.1(b), such Global Security shall be deemed to be surrendered to the Trustee for cancellation, and the Issuer shall execute, and the Trustee shall authenticate and make available for delivery, to each beneficial owner identified by the Depository in writing in exchange for its beneficial interest in such Global Security, an equal aggregate principal amount of Definitive Securities of authorized denominations.

(iv) Any Transfer Restricted Definitive Security delivered in exchange for an interest in a Global Security pursuant to Section 2.2 shall, except as otherwise provided in Section 2.2, bear the Restricted Securities Legend.

(v) Notwithstanding the foregoing, through the Restricted Period, a beneficial interest in a Regulation S Global Security may be held only through Euroclear or Clearstream unless delivery is made in accordance with the applicable provisions of Section 2.2.

(vi) The Holder of any Global Security may grant proxies and otherwise authorize any Person, including Agent Members and Persons that may hold interests through Agent Members, to take any action that a Holder is entitled to take under this Indenture or the Securities.

(c) Definitive Securities. In connection with the initial issuance of the Securities, to the extent that the purchaser of a Security cannot hold a beneficial interest in a Global Security, then such Security shall be represented by one or more Definitive Securities.

2.2 Transfer and Exchange.

(a) Transfer and Exchange of Global Securities. A Global Security may not be transferred as a whole except as set forth in Section 2.1(b). Global Securities will not be

exchanged by the Issuer for Definitive Securities except under the circumstances described in Section 2.1(b)(ii). Global Securities also may be exchanged or replaced, in whole or in part, as provided in Sections 2.08 and 2.10 of this Indenture. Beneficial interests in a Global Security may be transferred and exchanged as provided in Section 2.2(b) or 2.2(g).

(b) Transfer and Exchange of Beneficial Interests in Global Securities. The transfer and exchange of beneficial interests in the Global Securities shall be effected through the Depository, in accordance with the provisions of this Indenture and the applicable rules and procedures of the Depository. Beneficial interests in Transfer Restricted Global Securities shall be subject to restrictions on transfer comparable to those set forth herein to the extent required by the Securities Act. Transfers and exchanges of beneficial interests in the Global Securities also shall require compliance with either subparagraph (i) or (ii) below, as applicable, as well as one or more of the other following subparagraphs, as applicable:

(i) Transfer of Beneficial Interests in the Same Global Security. Beneficial interests in any Transfer Restricted Global Security may be transferred to Persons who take delivery thereof in the form of a beneficial interest in the same Transfer Restricted Global Security in accordance with the transfer restrictions set forth in the Restricted Securities Legend; *provided, however*, that prior to the expiration of the Restricted Period, transfers of beneficial interests in a Regulation S Global Security may not be made to a U.S. Person or for the account or benefit of a U.S. Person (other than to a QIB in reliance on Rule 144A). A beneficial interest in an Unrestricted Global Security may be transferred to Persons who take delivery thereof in the form of a beneficial interest in an Unrestricted Global Security. No written orders or instructions shall be required to be delivered to the Registrar to effect the transfers described in this Section 2.2(b)(i).

(ii) All Other Transfers and Exchanges of Beneficial Interests in Global Securities. In connection with all transfers and exchanges of beneficial interests in any Global Security that is not subject to Section 2.2(b)(i), the transferor of such beneficial interest must deliver to the Registrar (1) a written order from an Agent Member given to the Depository in accordance with the applicable rules and procedures of the Depository directing the Depository to credit or cause to be credited a beneficial interest in another Global Security in an amount equal to the beneficial interest to be transferred or exchanged and (2) instructions given in accordance with the applicable rules and procedures of the Depository containing information regarding the Agent Member account to be credited with such increase. Upon satisfaction of all of the requirements for transfer or exchange of beneficial interests in Global Securities contained in this Indenture and the Securities or otherwise applicable under the Securities Act, the Trustee shall adjust the principal amount of the relevant Global Security pursuant to Section 2.2(g) of this Appendix A.

(iii) Transfer of Beneficial Interests to Another Transfer Restricted Global Security. A beneficial interest in a Transfer Restricted Global Security may be transferred to a Person who takes delivery thereof in the form of a beneficial interest in another

Transfer Restricted Global Security if the transfer complies with the requirements of Section 2.2(b)(ii) above and the Registrar receives the following:

(A) if the transferee will take delivery in the form of a beneficial interest in a Rule 144A Global Security, then the transferor must deliver a certificate in the form attached to the applicable Security; and

(B) if the transferee will take delivery in the form of a beneficial interest in a Regulation S Global Security, then the transferor must deliver a certificate in the form attached to the applicable Security.

(iv) Transfer and Exchange of Beneficial Interests in a Transfer Restricted Global Security for Beneficial Interests in an Unrestricted Global Security. A beneficial interest in a Transfer Restricted Global Security may be exchanged by any holder thereof for a beneficial interest in an Unrestricted Global Security or transferred to a Person who takes delivery thereof in the form of a beneficial interest in an Unrestricted Global Security if the exchange or transfer complies with the requirements of Section 2.2(b)(ii) above and the Registrar receives the following:

(A) if the holder of such beneficial interest in a Transfer Restricted Global Security proposes to exchange such beneficial interest for a beneficial interest in an Unrestricted Global Security, a certificate from such holder in the form attached to the applicable Security; or

(B) if the holder of such beneficial interest in a Transfer Restricted Global Security proposes to transfer such beneficial interest to a Person who shall take delivery thereof in the form of a beneficial interest in an Unrestricted Global Security, a certificate from such holder in the form attached to the applicable Security,

and, in each such case, if the Issuer or the Registrar so requests or if the applicable rules and procedures of the Depository so require, an Opinion of Counsel in form reasonably acceptable to the Issuer and the Registrar to the effect that such exchange or transfer is in compliance with the Securities Act and that the restrictions on transfer contained herein and in the Restricted Securities Legend are no longer required in order to maintain compliance with the Securities Act. If any such transfer or exchange is effected pursuant to this subparagraph (iv) at a time when an Unrestricted Global Security has not yet been issued, the Issuer shall issue and, upon receipt of a written order of the Issuer in the form of an Officers' Certificate, the Trustee shall authenticate one or more Unrestricted Global Securities in an aggregate principal amount equal to the aggregate principal amount of beneficial interests transferred or exchanged pursuant to this subparagraph (iv).

(v) Transfer and Exchange of Beneficial Interests in an Unrestricted Global Security for Beneficial Interests in a Transfer Restricted Global Security. Beneficial interests in an Unrestricted Global Security cannot be exchanged for, or transferred to Persons who take delivery thereof in the form of, a beneficial interest in a Transfer Restricted Global Security.

(c) Transfer and Exchange of Beneficial Interests in Global Securities for Definitive Securities. A beneficial interest in a Global Security may not be exchanged for a Definitive Security except under the circumstances described in Section 2.1(b)(ii).

(d) Transfer and Exchange of Definitive Securities for Beneficial Interests in Global Securities. Transfers and exchanges of Definitive Securities for beneficial interests in Global Securities also shall require compliance with either subparagraph (i), (ii), (iii) or (iv) below, as applicable:

(i) Transfer Restricted Definitive Securities to Beneficial Interests in Transfer Restricted Global Securities. If any Holder of a Transfer Restricted Definitive Security proposes to exchange such Transfer Restricted Definitive Security for a beneficial interest in a Transfer Restricted Global Security or to transfer such Transfer Restricted Definitive Security to a Person who takes delivery thereof in the form of a beneficial interest in a Transfer Restricted Global Security, then, upon receipt by the Registrar of the following documentation:

(A) if the Holder of such Transfer Restricted Definitive Security proposes to exchange such Transfer Restricted Definitive Security for a beneficial interest in a Transfer Restricted Global Security, a certificate from such Holder in the form attached to the applicable Security;

(B) if such Transfer Restricted Definitive Security is being transferred to a QIB in accordance with Rule 144A, a certificate from such Holder in the form attached to the applicable Security;

(C) if such Transfer Restricted Definitive Security is being transferred to a Person that is not a U.S. Person in an offshore transaction in accordance with Rule 903 or Rule 904 under the Securities Act, a certificate from such Holder in the form attached to the applicable Security;

(D) if such Transfer Restricted Definitive Security is being transferred pursuant to an exemption from the registration requirements of the Securities Act in accordance with Rule 144 under the Securities Act, a certificate from such Holder in the form attached to the applicable Security; and

(E) if such Transfer Restricted Definitive Security is being transferred to the Issuer or a Subsidiary thereof, a certificate from such Holder in the form attached to the applicable Security;

the Trustee shall cancel the Transfer Restricted Definitive Security, and increase or cause to be increased the aggregate principal amount of the appropriate Transfer Restricted Global Security.

(ii) Transfer Restricted Definitive Securities to Beneficial Interests in Unrestricted Global Securities. A Holder of a Transfer Restricted Definitive Security may exchange such Transfer Restricted Definitive Security for a beneficial interest in an Unrestricted Global Security or transfer such Transfer Restricted Definitive Security to a

Person who takes delivery thereof in the form of a beneficial interest in an Unrestricted Global Security only if the Registrar receives the following:

(A) if the Holder of such Transfer Restricted Definitive Security proposes to exchange such Transfer Restricted Definitive Security for a beneficial interest in an Unrestricted Global Security, a certificate from such Holder in the form attached to the applicable Security; or

(B) if the Holder of such Transfer Restricted Definitive Security proposes to transfer such Transfer Restricted Definitive Security to a Person who shall take delivery thereof in the form of a beneficial interest in an Unrestricted Global Security, a certificate from such Holder in the form attached to the applicable Security,

and, in each such case, if the Issuer or the Registrar so requests or if the applicable rules and procedures of the Depository so require, an Opinion of Counsel in form reasonably acceptable to the Registrar to the effect that such exchange or transfer is in compliance with the Securities Act and that the restrictions on transfer contained herein and in the Restricted Securities Legend are no longer required in order to maintain compliance with the Securities Act. Upon satisfaction of the conditions of this subparagraph (ii), the Trustee shall cancel the Transfer Restricted Definitive Securities and increase or cause to be increased the aggregate principal amount of the Unrestricted Global Security. If any such transfer or exchange is effected pursuant to this subparagraph (ii) at a time when an Unrestricted Global Security has not yet been issued, the Issuer shall issue and, upon receipt of a written order of the Issuer in the form of an Officers' Certificate, the Trustee shall authenticate one or more Unrestricted Global Securities in an aggregate principal amount equal to the aggregate principal amount of Transfer Restricted Definitive Securities transferred or exchanged pursuant to this subparagraph (ii).

(iii) Unrestricted Definitive Securities to Beneficial Interests in Unrestricted Global Securities. A Holder of an Unrestricted Definitive Security may exchange such Unrestricted Definitive Security for a beneficial interest in an Unrestricted Global Security or transfer such Unrestricted Definitive Security to a Person who takes delivery thereof in the form of a beneficial interest in an Unrestricted Global Security at any time. Upon receipt of a request for such an exchange or transfer, the Trustee shall cancel the applicable Unrestricted Definitive Security and increase or cause to be increased the aggregate principal amount of one of the Unrestricted Global Securities. If any such transfer or exchange is effected pursuant to this subparagraph (iii) at a time when an Unrestricted Global Security has not yet been issued, the Issuer shall issue and, upon receipt of a written order of the Issuer in the form of an Officers' Certificate, the Trustee shall authenticate one or more Unrestricted Global Securities in an aggregate principal amount equal to the aggregate principal amount of Unrestricted Definitive Securities transferred or exchanged pursuant to this subparagraph (iii).

(iv) Unrestricted Definitive Securities to Beneficial Interests in Transfer Restricted Global Securities. An Unrestricted Definitive Security cannot be exchanged for, or transferred to a Person who takes delivery thereof in the form of, a beneficial interest in a Transfer Restricted Global Security.

(e) Transfer and Exchange of Definitive Securities for Definitive Securities. Upon request by a Holder of Definitive Securities and such Holder's compliance with the provisions of this Section 2.2(e), the Registrar shall register the transfer or exchange of Definitive Securities. Prior to such registration of transfer or exchange, the requesting Holder shall present or surrender to the Registrar the Definitive Securities duly endorsed or accompanied by a written instruction of transfer in form satisfactory to the Registrar duly executed by such Holder or by its attorney, duly authorized in writing. In addition, the requesting Holder shall provide any additional certifications, documents and information, as applicable, required pursuant to the following provisions of this Section 2.2(e):

(i) Transfer Restricted Definitive Securities to Transfer Restricted Definitive Securities. A Transfer Restricted Definitive Security may be transferred to and registered in the name of a Person who takes delivery thereof in the form of a Transfer Restricted Definitive Security if the Registrar receives the following:

(A) if the transfer will be made pursuant to Rule 144A, a certificate in the form attached to the applicable Security;

(B) if the transfer will be made pursuant to Rule 903 or Rule 904 under the Securities Act, a certificate in the form attached to the applicable Security;

(C) if the transfer will be made pursuant to an exemption from the registration requirements of the Securities Act in accordance with Rule 144 under the Securities Act, a certificate in the form attached to the applicable Security; and

(D) if such transfer will be made to the Issuer or a Subsidiary thereof, a certificate in the form attached to the applicable Security.

(ii) Transfer Restricted Definitive Securities to Unrestricted Definitive Securities. Any Transfer Restricted Definitive Security may be exchanged by the Holder thereof for an Unrestricted Definitive Security or transferred to a Person who takes delivery thereof in the form of an Unrestricted Definitive Security if the Registrar receives the following:

(1) if the Holder of such Transfer Restricted Definitive Security proposes to exchange such Transfer Restricted Definitive Security for an Unrestricted Definitive Security, a certificate from such Holder in the form attached to the applicable Security; or

(2) if the Holder of such Transfer Restricted Definitive Security proposes to transfer such Transfer Restricted Definitive Security to a Person who shall take delivery thereof in the form of an Unrestricted Definitive Security, a certificate from such Holder in the form attached to the applicable Security,

and, in each such case, if the Registrar so requests, an Opinion of Counsel in form reasonably acceptable to the Issuer to the effect that such exchange or transfer is in compliance with the Securities Act and that the restrictions on transfer contained herein and in the Restricted Securities Legend are no longer required in order to maintain compliance with the Securities Act.

(iii) Unrestricted Definitive Securities to Unrestricted Definitive Securities. A Holder of an Unrestricted Definitive Security may transfer such Unrestricted Definitive Security to a Person who takes delivery thereof in the form of an Unrestricted Definitive Security at any time. Upon receipt of a request to register such a transfer, the Registrar shall register the Unrestricted Definitive Securities pursuant to the instructions from the Holder thereof.

(iv) Unrestricted Definitive Securities to Transfer Restricted Definitive Securities. An Unrestricted Definitive Security cannot be exchanged for, or transferred to a Person who takes delivery thereof in the form of, a Transfer Restricted Definitive Security.

At such time as all beneficial interests in a particular Global Security have been exchanged for Definitive Securities or a particular Global Security has been redeemed, repurchased or canceled in whole and not in part, each such Global Security shall be retained and canceled by the Trustee in accordance with Section 2.11 of this Indenture. At any time prior to such cancellation, if any beneficial interest in a Global Security is exchanged for or transferred to a Person who will take delivery thereof in the form of a beneficial interest in another Global Security or for Definitive Securities, the principal amount of Securities represented by such Global Security shall be reduced accordingly and an endorsement shall be made on such Global Security by the Trustee or by the Depository at the direction of the Trustee to reflect such reduction; and if the beneficial interest is being exchanged for or transferred to a Person who will take delivery thereof in the form of a beneficial interest in another Global Security, such other Global Security shall be increased accordingly and an endorsement shall be made on such Global Security by the Trustee or by the Depository at the direction of the Trustee to reflect such increase.

(f) Legends.

(i) Each Security certificate evidencing the Global Securities and the Definitive Securities (and all Securities issued in exchange therefor or in substitution thereof) shall bear a legend in substantially the following form (each defined term in the legend being defined as such for purposes of the legend only):

NEITHER THIS NOTE NOR ANY INTEREST HEREIN HAS BEEN REGISTERED UNDER THE U.S. SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), THE SECURITIES LAWS OF ANY STATE OR THE SECURITIES LAWS OF ANY OTHER JURISDICTION, NOR IS SUCH REGISTRATION CONTEMPLATED. NEITHER THIS NOTE NOR ANY INTEREST HEREIN MAY BE ASSIGNED, TRANSFERRED, PLEDGED, ENCUMBERED, SOLD OR OFFERED FOR SALE OR OTHERWISE DISPOSED OF IN THE ABSENCE OF AN EXEMPTION FROM SUCH REGISTRATION THEREUNDER AND

ANY OTHER APPLICABLE SECURITIES LAW REGISTRATION REQUIREMENTS. EACH PERSON OR ENTITY THAT ACQUIRES OR ACCEPTS THIS NOTE OR AN INTEREST HEREIN BY SUCH ACQUISITION OR ACCEPTANCE (1) REPRESENTS THAT (A) IT IS A QUALIFIED INSTITUTIONAL BUYER (AS DEFINED IN RULE 144A UNDER THE SECURITIES ACT) AND, IF SUBSEQUENT TO THE INITIAL ACQUISITION HEREOF, IS PURCHASING THIS NOTE IN A TRANSACTION MEETING THE REQUIREMENTS OF RULE 144A UNDER THE SECURITIES ACT OR (B) IT IS NOT A U.S. PERSON AND IS ACQUIRING THIS NOTE IN AN OFFSHORE TRANSACTION IN COMPLIANCE WITH RULE 903 OR 904 OF REGULATION S UNDER THE SECURITIES ACT, (2) AGREES THAT IT WILL NOT OFFER, SELL OR OTHERWISE TRANSFER THIS NOTE OR AN INTEREST HEREIN, EXCEPT (A) TO THE ISSUER OR A SUBSIDIARY THEREOF, (B) FOR SO LONG AS THIS NOTE IS ELIGIBLE FOR RESALE PURSUANT TO RULE 144A UNDER THE SECURITIES ACT, TO AN ENTITY IT REASONABLY BELIEVES IS A QUALIFIED INSTITUTIONAL BUYER THAT PURCHASES FOR ITS OWN ACCOUNT OR FOR THE ACCOUNT OF A QUALIFIED INSTITUTIONAL BUYER, TO WHOM NOTICE IS GIVEN THAT THE TRANSFER IS BEING MADE IN RELIANCE ON RULE 144A UNDER THE SECURITIES ACT, OR (C) TO PERSONS OR ENTITIES OTHER THAN U.S. PERSONS, INCLUDING DEALERS OR OTHER PROFESSIONAL FIDUCIARIES IN THE UNITED STATES ACTING ON A DISCRETIONARY BASIS FOR FOREIGN BENEFICIAL OWNERS (OTHER THAN AN ESTATE OR TRUST), IN OFFSHORE TRANSACTIONS IN RELIANCE UPON, AND IN ACCORDANCE WITH, REGULATION S UNDER THE SECURITIES ACT AND (3) AGREES THAT IT WILL GIVE TO EACH PERSON OR ENTITY TO WHOM THIS NOTE OR AN INTEREST HEREIN IS TRANSFERRED A NOTICE SUBSTANTIALLY TO THE EFFECT OF THIS LEGEND. THE TERMS "OFFSHORE TRANSACTION", "UNITED STATES" AND "U.S. PERSON" HAVE THE RESPECTIVE MEANINGS GIVEN TO THEM BY REGULATION S UNDER THE SECURITIES ACT. THE INDENTURE REFERRED TO HEREINAFTER CONTAINS A PROVISION REQUIRING THE REGISTRAR APPOINTED THEREUNDER TO REFUSE TO REGISTER ANY TRANSFER OF THIS NOTE IN VIOLATION OF THE FOREGOING RESTRICTIONS.

THIS NOTE MAY NOT BE RESOLD OR TRANSFERRED EXCEPT AS SET FORTH IN THE INDENTURE REFERRED TO HEREINAFTER, AND, IN ADDITION, EACH PERSON OR ENTITY THAT ACQUIRES OR ACCEPTS THIS NOTE OR AN INTEREST HEREIN BY SUCH ACQUISITION OR ACCEPTANCE AGREES TO COMPLY WITH THE TRANSFER RESTRICTIONS SET FORTH IN SUCH INDENTURE, AND FURTHER ACKNOWLEDGES AND AGREES TO THE PROVISIONS SET FORTH IN SUCH INDENTURE.

(ii) Each Global Security shall bear the following legend:

UNLESS THIS NOTE IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY, A NEW YORK CORPORATION, TO THE ISSUER OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE OR PAYMENT, AND ANY NOTE ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY (AND ANY PAYMENT HEREON IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED

REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON OR ENTITY IS WRONGFUL INASMUCH AS THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN.

TRANSFERS OF THIS NOTE SHALL BE LIMITED TO TRANSFERS IN WHOLE, BUT NOT IN PART, TO NOMINEES OF CEDE & CO. OR TO A SUCCESSOR THEREOF OR SUCH SUCCESSOR'S NOMINEE AND TRANSFERS OF PORTIONS OF THIS NOTE SHALL BE LIMITED TO TRANSFERS MADE IN ACCORDANCE WITH THE RESTRICTIONS SET FORTH IN THE INDENTURE REFERRED TO HEREINAFTER.

(g) Cancellation or Adjustment of Global Security. At such time as all beneficial interests in a particular Global Security have been exchanged for Definitive Securities or a particular Global Security has been redeemed, repurchased or canceled in whole and not in part, each such Global Security shall be returned to or retained and canceled by the Trustee in accordance with Section 2.11 of this Indenture. At any time prior to such cancellation, if any beneficial interest in a Global Security is exchanged for or transferred to a Person who will take delivery thereof in the form of a beneficial interest in another Global Security or for Definitive Securities, the principal amount of Securities represented by such Global Security shall be reduced accordingly and an endorsement shall be made on such Global Security by the Trustee or by the Depository at the direction of the Trustee to reflect such reduction; and if the beneficial interest is being exchanged for or transferred to a Person who will take delivery thereof in the form of a beneficial interest in another Global Security, such other Global Security shall be increased accordingly and an endorsement shall be made on such Global Security by the Trustee or by the Depository at the direction of the Trustee to reflect such increase.

(h) Obligations with Respect to Transfers and Exchanges of Securities.

(i) To permit registrations of transfers and exchanges, the Issuer shall execute, and the Trustee shall authenticate, Definitive Securities and Global Securities at the Registrar's request.

(ii) No service charge shall be made for any registration of transfer or exchange, but the Issuer may require payment of a sum sufficient to cover any transfer tax, assessments, or similar governmental charge payable in connection therewith (other than any such transfer taxes, assessments or similar governmental charge payable upon exchanges pursuant to Sections 3.06, 4.06, 4.08 and 9.04 of this Indenture).

(iii) Prior to the due presentation for registration of transfer of any Security, the Issuer, the Trustee, a Paying Agent or the Registrar may deem and treat the Person in whose name a Security is registered as the absolute owner of such Security for the purpose of receiving payment of principal of and interest on such Security and for all other purposes whatsoever, whether or not such Security is overdue, and none of the Issuer, the Trustee, the Paying Agent or the Registrar shall be affected by notice to the contrary.

(iv) All Securities issued upon any transfer or exchange pursuant to the terms of this Indenture shall evidence the same debt and shall be entitled to the same benefits under this Indenture as the Securities surrendered upon such transfer or exchange.

(i) No Obligation of the Trustee.

(i) The Trustee shall have no responsibility or obligation to any beneficial owner of a Global Security, a member of, or a participant in, the Depository or any other Person with respect to the accuracy of the records of the Depository or of any participant or member thereof, with respect to any ownership interest in the Securities or with respect to the delivery to any participant, member, beneficial owner or other Person (other than the Depository) of any notice (including any notice of redemption or repurchase) or the payment of any amount, under or with respect to such Securities. All notices and communications to be given to the Holders and all payments to be made to the Holders under the Securities shall be given or made to the registered Holders (which shall be the Depository in the case of a Global Security). Except as may be otherwise permitted pursuant to Section 2.14 of the Indenture, the rights of beneficial owners in any Global Security shall be exercised only through the Depository subject to the applicable rules and procedures of the Depository. The Trustee may rely and shall be fully protected in relying upon information furnished by the Depository with respect to its members, its participants and any beneficial owners.

(ii) The Trustee shall have no obligation or duty to monitor, determine or inquire as to compliance with any restrictions on transfer imposed under this Indenture or under applicable law with respect to any transfer of any interest in any Security (including any transfers between or among Depository participants, members or beneficial owners in any Global Security) 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 this Indenture, and to examine the same to determine substantial compliance as to form with the express requirements hereof.

{FORM OF SECURITY}

NEITHER THIS NOTE NOR ANY INTEREST HEREIN HAS BEEN REGISTERED UNDER THE U.S. SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), THE SECURITIES LAWS OF ANY STATE OR THE SECURITIES LAWS OF ANY OTHER JURISDICTION, NOR IS SUCH REGISTRATION CONTEMPLATED. NEITHER THIS NOTE NOR ANY INTEREST HEREIN MAY BE ASSIGNED, TRANSFERRED, PLEDGED, ENCUMBERED, SOLD OR OFFERED FOR SALE OR OTHERWISE DISPOSED OF IN THE ABSENCE OF AN EXEMPTION FROM SUCH REGISTRATION THEREUNDER AND ANY OTHER APPLICABLE SECURITIES LAW REGISTRATION REQUIREMENTS. EACH PERSON OR ENTITY THAT ACQUIRES OR ACCEPTS THIS NOTE OR AN INTEREST HEREIN BY SUCH ACQUISITION OR ACCEPTANCE (1) REPRESENTS THAT (A) IT IS A QUALIFIED INSTITUTIONAL BUYER (AS DEFINED IN RULE 144A UNDER THE SECURITIES ACT) AND, IF SUBSEQUENT TO THE INITIAL ACQUISITION HEREOF, IS PURCHASING THIS NOTE IN A TRANSACTION MEETING THE REQUIREMENTS OF RULE 144A UNDER THE SECURITIES ACT OR (B) IT IS NOT A U.S. PERSON AND IS ACQUIRING THIS NOTE IN AN OFFSHORE TRANSACTION IN COMPLIANCE WITH RULE 903 OR 904 OF REGULATION S UNDER THE SECURITIES ACT, (2) AGREES THAT IT WILL NOT OFFER, SELL OR OTHERWISE TRANSFER THIS NOTE OR AN INTEREST HEREIN, EXCEPT (A) TO THE ISSUER OR A SUBSIDIARY THEREOF, (B) FOR SO LONG AS THIS NOTE IS ELIGIBLE FOR RESALE PURSUANT TO RULE 144A UNDER THE SECURITIES ACT, TO AN ENTITY IT REASONABLY BELIEVES IS A QUALIFIED INSTITUTIONAL BUYER THAT PURCHASES FOR ITS OWN ACCOUNT OR FOR THE ACCOUNT OF A QUALIFIED INSTITUTIONAL BUYER, TO WHOM NOTICE IS GIVEN THAT THE TRANSFER IS BEING MADE IN RELIANCE ON RULE 144A UNDER THE SECURITIES ACT, OR (C) TO PERSONS OR ENTITIES OTHER THAN U.S. PERSONS, INCLUDING DEALERS OR OTHER PROFESSIONAL FIDUCIARIES IN THE UNITED STATES ACTING ON A DISCRETIONARY BASIS FOR FOREIGN BENEFICIAL OWNERS (OTHER THAN AN ESTATE OR TRUST), IN OFFSHORE TRANSACTIONS IN RELIANCE UPON, AND IN ACCORDANCE WITH, REGULATION S UNDER THE SECURITIES ACT AND (3) AGREES THAT IT WILL GIVE TO EACH PERSON OR ENTITY TO WHOM THIS NOTE OR AN INTEREST HEREIN IS TRANSFERRED A NOTICE SUBSTANTIALLY TO THE EFFECT OF THIS LEGEND. THE TERMS "OFFSHORE TRANSACTION", "UNITED STATES" AND "U.S. PERSON" HAVE THE RESPECTIVE MEANINGS GIVEN TO THEM BY REGULATION S UNDER THE SECURITIES ACT. THE INDENTURE REFERRED TO HEREINAFTER CONTAINS A PROVISION REQUIRING THE REGISTRAR APPOINTED THEREUNDER TO REFUSE TO REGISTER ANY TRANSFER OF THIS NOTE IN VIOLATION OF THE FOREGOING RESTRICTIONS.

THIS NOTE MAY NOT BE RESOLD OR TRANSFERRED EXCEPT AS SET FORTH IN THE INDENTURE REFERRED TO HEREINAFTER, AND, IN ADDITION, EACH PERSON OR ENTITY THAT ACQUIRES OR ACCEPTS THIS NOTE OR AN INTEREST HEREIN BY SUCH ACQUISITION OR ACCEPTANCE AGREES TO COMPLY WITH THE TRANSFER RESTRICTIONS SET FORTH IN SUCH INDENTURE, AND FURTHER ACKNOWLEDGES AND AGREES TO THE PROVISIONS SET FORTH IN SUCH INDENTURE.

UNLESS THIS NOTE IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY, A NEW YORK CORPORATION, TO THE ISSUER OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE OR PAYMENT, AND ANY NOTE ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY (AND ANY PAYMENT HEREON IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON OR ENTITY IS WRONGFUL INASMUCH AS THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN.

TRANSFERS OF THIS NOTE SHALL BE LIMITED TO TRANSFERS IN WHOLE, BUT NOT IN PART, TO NOMINEES OF CEDE & CO. OR TO A SUCCESSOR THEREOF OR SUCH SUCCESSOR'S NOMINEE AND TRANSFERS OF PORTIONS OF THIS NOTE SHALL BE LIMITED TO TRANSFERS MADE IN ACCORDANCE WITH THE RESTRICTIONS SET FORTH IN THE INDENTURE REFERRED TO HEREINAFTER.

No.

\$

11.5% Senior Secured Note due 2022

CUSIP No.
ISIN No.

Merrimack Pharmaceuticals, Inc., a Delaware corporation (the "Issuer"), promises to pay to {Cede & Co.}, or its registered assigns, the principal sum {of \$ Dollars} {listed on the Schedule of Increases or Decreases in Global Security attached hereto}¹ on or before December 15, 2022 as set forth in this Security.

Payment Dates: June 15 and December 15 (each, a "Payment Date")

Record Dates: June 1 and December 1 (each, a "Record Date")

Additional provisions of this Security are set forth on the following pages of this Security.

¹ Use the Schedule of Increases or Decreases language if Security is in Global Form.

IN WITNESS WHEREOF, the undersigned has caused this Instrument to be duly executed.

MERRIMACK PHARMACEUTICALS, INC.

By: _____
Name:
Title:

TRUSTEE'S CERTIFICATE OF AUTHENTICATION

U.S. Bank National Association, as Trustee, certifies that this
is one of the Securities referred to in the within-mentioned
Indenture.

By: _____
Authorized Signatory

Date:

1. Interest and Payments of Principal

(a) Merrimack Pharmaceuticals, Inc., a Delaware corporation (the "Issuer"), shall pay interest on the outstanding principal amount of this Security at the rate per annum shown above.

(b) The Issuer shall pay interest semi-annually in arrears on June 15 and December 15 of each year, commencing June 15, 2016, or on the succeeding Business Day if any such date is not a Business Day. Interest on the Securities shall accrue on the outstanding principal amount thereof from the most recent date to which interest has been paid or duly provided for or, if no interest has been paid or duly provided for, from December 22, 2015 until the principal hereof is paid or duly provided for. Interest shall be computed on the basis of a 360-day year of twelve 30-day months. The Issuer shall pay interest on overdue principal at the rate borne by the Securities and it shall pay interest on overdue installments of interest at the same rate to the extent lawful.

(c) The Securities will mature on December 15, 2022.

(d) This Security is one of a series of Securities aggregating \$175,000,000 in original principal amount. On each Payment Date, commencing June 15, 2019, or on the succeeding Business Day if any such date is not a Business Day, the Issuer shall pay an installment of principal of the Securities (subject to adjustment as described below) in an amount set forth below corresponding to the applicable Payment Date:

Payment Date	Amount	
June 15, 2019	\$	21,875,000
December 15, 2019	\$	21,875,000
June 15, 2020	\$	21,875,000
December 15, 2020	\$	21,875,000
June 15, 2021	\$	21,875,000
December 15, 2021	\$	21,875,000
June 15, 2022	\$	21,875,000
December 15, 2022		All remaining outstanding principal of the Securities at such date

In the event that there shall have been any partial redemption of the Securities, each principal installment amount set forth above subsequent to such partial redemption shall be reduced by an amount equal to the amount obtained by multiplying such principal installment amount as in effect prior to such partial redemption by a fraction of which the numerator shall be the aggregate principal amount of Securities redeemed pursuant to such partial redemption and the denominator shall be the aggregate unpaid outstanding principal balance of the Securities immediately prior to such partial redemption. Any such reduction shall be made on a pro rata basis, as nearly as practicable, among the Holders of the Securities.

2. Method of Payment

The Issuer shall pay interest on the Securities (except defaulted interest) and payments of installments of principal to the Persons who are registered Holders at the close of business on the Record Date immediately preceding the related Payment Date even if Securities are canceled after such Record Date and on or before such Payment Date (whether or not a Business Day). Holders must surrender Securities to the Paying Agent to collect principal payments (other than payments of installments of principal). The Issuer shall pay principal, premium, if any, and interest in money of the United States of America that at the time of payment is legal tender for payment of public and private debts. {Payments in respect of the Securities (including principal, premium, if any, and interest) shall be made by wire transfer of immediately available funds to the accounts specified by The Depository Trust Company or any successor depository.}² {The Issuer shall make all payments in respect of the Securities (including principal, premium, if any, and interest) at the office of the Paying Agent, except that, at the option of the Issuer, payment of interest may be made by mailing a check to the registered address of each Holder thereof; *provided, however*, that payments on the Securities may also be made, in the case of a Holder of at least \$1,000,000 aggregate principal amount of Securities, by wire transfer to a U.S. dollar account maintained by the payee with a bank in the United States if such Holder elects payment by wire transfer by giving written notice to the Trustee or Paying Agent to such effect designating such account no later than 30 days immediately preceding the relevant due date for payment (or such other date as the Trustee may accept in its discretion).}³

3. Paying Agent and Registrar

Initially, U.S. Bank National Association (the "Trustee") will act as Paying Agent and Registrar. The Issuer or any of its domestically organized Wholly Owned Restricted Subsidiaries may act as Paying Agent or Registrar.

4. Indenture

The Issuer issued the Securities under the Indenture dated as of December 22, 2015 (the "Indenture") among the Issuer, the guarantors that may be party thereto from time to time, the Trustee and the Collateral Agent. The terms of the Securities include those stated in the Indenture and those made part of the Indenture by reference to the Trust Indenture Act of 1939 (15 U.S.C. §§ 77aaa-77bbb) as in effect on the date of the Indenture (the "TIA"); *provided, however*, that in the event the Trust Indenture Act of 1939 is amended after the date hereof, the term "TIA" shall mean, to the extent required by such amendment, the Trust Indenture Act of 1939, as so amended. Terms defined in the Indenture and not defined herein have the meanings ascribed thereto in the Indenture. The Securities are subject to all terms and provisions of the Indenture, and the Holders are referred to the Indenture and the TIA for a statement of such terms and provisions.

² Include in a Global Security.

³ Include in a Definitive Security.

The Securities are senior secured obligations of the Issuer. This Security is one of the Securities referred to in the Indenture. The Securities are treated as a single class of securities under the Indenture. The Indenture imposes certain limitations on the ability of the Issuer and its Restricted Subsidiaries to, among other things, make certain Investments and other Restricted Payments, pay dividends and other distributions, incur Indebtedness, enter into consensual restrictions upon the payment of certain dividends and distributions by such Restricted Subsidiaries, issue or sell shares of capital stock of the Issuer and such Restricted Subsidiaries, enter into or permit certain transactions with Affiliates, create or incur Liens and make Asset Sales. The Indenture also imposes limitations on the ability of the Issuer and each Guarantor to consolidate or merge with or into any other Person or convey, transfer or lease all or substantially all of their property.

To guarantee the due and punctual payment of the principal of and interest on the Securities and all other amounts payable by the Issuer under the Indenture and the Securities when and as the same shall be due and payable, whether at maturity, by acceleration or otherwise, according to the terms of the Securities and the Indenture, the Guarantors have, jointly and severally, irrevocably and unconditionally guaranteed the Guaranteed Obligations on a senior secured basis pursuant to the terms of the Indenture.

5. Optional Redemption

The Issuer may redeem the Securities at its option, in whole at any time or in part from time to time, on any Business Day specified by the Issuer prior to December 22, 2016, on not less than 30 days' nor more than 60 days' prior written notice delivered to each Holder, at a redemption price equal to 100% of the principal amount of the Securities being redeemed plus the Applicable Premium, plus accrued and unpaid interest, if any, to the redemption date (subject to the right of Holders of record on the relevant Record Date to receive interest due on the relevant Payment Date).

The Issuer may redeem the Securities at its option, in whole at any time or in part from time to time, on any Business Day specified by the Issuer on or after December 22, 2016, on not less than 30 days' nor more than 60 days' prior written notice delivered to each Holder, at the following redemption prices (expressed as a percentage of outstanding principal amount of the Securities being redeemed), plus accrued and unpaid interest to the redemption date (subject to the right of Holders of record on the relevant Record Date to receive interest due on the relevant Payment Date), for the following periods:

<u>Period</u>	<u>Redemption Price</u>
From and including December 22, 2016 to and including December 21, 2017	111.500%
From and including December 22, 2017 to and including December 21, 2018	105.750%
From and including December 22, 2018 to and including December 21, 2019	102.875%
From and including December 22, 2019 and thereafter	100.000%

“Applicable Premium” means, with respect to any Security (or portion thereof) to be redeemed on any redemption date, the greater of (x) 1.0% of the amount of principal of such Security to be redeemed and (y) the amount, if any, by which (a) the present value at such redemption date of (i) the redemption price of the amount of principal of such Security to be redeemed on December 22, 2016 (as stated in the table above) plus (ii) all required interest payments due on the amount of principal of such Security to be redeemed through December 22, 2016 (excluding accrued but unpaid interest, if any, to the redemption date), computed using a discount rate equal to the Treasury Rate in respect of such redemption date plus 100 basis points, exceeds (b) the amount of principal of such Security to be redeemed.

“Treasury Rate” means, in respect of any redemption date, the weekly average yield as of such redemption date of actually traded United States Treasury securities adjusted to a constant maturity of one year (as compiled and published in the most recent Federal Reserve Statistical Release H.15(519) that has become publicly available at least two Business Days prior to such redemption date (or, if such Federal Reserve Statistical Release H.15(519) is no longer published, any publicly available source of similar market data)).

Notice of any redemption may, at the Issuer’s discretion, be subject to one or more conditions precedent, including the receipt by the Trustee, on or prior to the redemption date, of money sufficient to pay the principal of, and premium, if any, and interest on, the Securities being redeemed.

6. Notice of Redemption

Written notice of redemption pursuant to paragraph 5 will be provided at least 30 days but not more than 60 days before the redemption date to each Holder of Securities to be redeemed. Securities in denominations larger than \$1,000 may be redeemed in part but only in whole multiples of \$1,000. If money sufficient to pay the redemption price of and accrued and unpaid interest on all Securities (or portions thereof) to be redeemed on the redemption date is deposited with a Paying Agent on or before the redemption date and certain other conditions are satisfied, on and after such date, interest ceases to accrue on such Securities (or such portions thereof) called for redemption.

7. Sinking Fund

The Securities are not subject to any sinking fund.

8. Repurchase of Securities at the Option of the Holders upon Change of Control and Asset Sales

Upon the occurrence of a Change of Control, each Holder shall have the right, subject to certain conditions specified in the Indenture, to cause the Issuer to repurchase all or any part of such Holder's Securities at a purchase price in cash equal to 101% of the principal balance thereof, plus accrued and unpaid interest, if any, to the date of repurchase (subject to the right of the Holders of record on the relevant Record Date to receive interest due on the related Payment Date), as provided in, and subject to the terms of, the Indenture.

In accordance with, and subject to the terms of, Section 4.06 of the Indenture, the Issuer will be required to offer to purchase Securities upon the occurrence of certain Asset Sale events.

9. Security

The Securities will be secured by the Notes Collateral on the terms and subject to the conditions set forth in the Indenture and the Security Documents. The Collateral Agent holds the Notes Collateral in trust for the benefit of the Trustee and the Holders, in each case pursuant to the Security Documents and the Intercreditor Agreements. Each Holder, by accepting this Security, consents and agrees to the terms of the Security Documents (including the provisions providing for the foreclosure and release of Notes Collateral) and the Intercreditor Agreements as the same may be in effect or may be amended from time to time in accordance with their terms and the Indenture and authorizes and directs each of the Trustee and the Collateral Agent to enter into the Security Documents and the Intercreditor Agreements, and to perform its obligations and exercise its rights thereunder in accordance therewith.

10. Denominations; Transfer; Exchange

The Securities are in registered form, without coupons, in denominations of \$250,000 and any integral multiple of \$1,000 in excess thereof. The registration of transfer of or exchange of Securities shall be done in accordance with the Indenture. Upon any registration of transfer or exchange, the Registrar and the Trustee may require a Holder, among other things, to furnish appropriate endorsements and transfer documents and to pay any taxes required by law or permitted by the Indenture. The Registrar need not register the transfer of or exchange any Securities selected for redemption (except, in the case of a Security to be redeemed in part, the portion of the Security not to be redeemed) or to transfer or exchange any Securities for a period of 15 days prior to a selection of Securities to be redeemed.

11. Persons Deemed Owners

Subject to Section 2.14 of the Indenture, the registered Holder of this Security shall be treated as the owner of it for all purposes.

12. Unclaimed Money

If money for the payment of principal or interest remains unclaimed for two years, the Trustee and a Paying Agent shall pay the money back to the Issuer at its written request unless an abandoned property law designates another Person. After any such payment, the Holders entitled to the money must look to the Issuer for payment as general creditors and the Trustee and Paying Agent shall have no further liability with respect to such monies.

13. Discharge and Defeasance

Subject to certain conditions set forth in the Indenture, the Issuer at any time may terminate some of or all its obligations under the Securities and the Indenture if the Issuer deposits with the Trustee money or U.S. Government Obligations for the payment of principal and interest on the Securities to redemption or maturity, as the case may be.

14. Amendment; Waiver

Subject to certain exceptions set forth in the Indenture, (x) the Indenture, the Securities, any Security Document or any Intercreditor Agreement may be amended with the written consent of the Holders of a majority in principal amount of the Securities then outstanding (voting as a single class) and (y) any past default or compliance with any provisions may be waived with the written consent of the Holders of a majority in principal amount of the Securities then outstanding. Subject to certain exceptions set forth in the Indenture, without the consent of any Holder, the Issuer, the Collateral Agent, the Guarantors and the Trustee may amend the Indenture, the Securities, any Security Document or any Intercreditor Agreement (i) to cure any ambiguity, omission, mistake, defect or inconsistency; (ii) to provide for the assumption by a Successor Company of the obligations of the Issuer under the Indenture and the Securities; (iii) to provide for the assumption by a Successor Guarantor of the obligations of a Guarantor under the Indenture and its Guarantee; (iv) to provide for uncertificated Securities in addition to or in place of certificated Securities (*provided* however that the uncertificated Securities are issued in registered form for purposes of Sections 871(h)(2)(B) and 881(c)(2)(B) of the Code and United States Treasury Regulation Section 5f.103-1(c)); (v) to add additional Guarantees with respect to the Securities; (vi) to add to the covenants of the Issuer for the benefit of the Holders or to surrender any right or power conferred in the Indenture upon the Issuer; (vii) to make any change that does not adversely affect the rights of any Holder; (viii) to conform the text of the Indenture, the Guarantees, the Securities, the Security Documents or the Intercreditor Agreements to any provisions of the Summary of Terms dated as of December 9, 2015 to the extent that such provision in the Summary of Terms dated as of December 9, 2015 was intended to be a verbatim recitation of a provision of the Indenture, the Guarantees, the Securities, the Security Documents or the Intercreditor Agreements; (ix) to add additional assets as Notes Collateral to secure the Securities; (x) to release Notes Collateral from the Lien pursuant to the Indenture, the Security Documents and the Intercreditor Agreements when permitted or required by the Indenture, the Security Documents or the Intercreditor Agreements; or (xi) to modify the Security Documents and/or the Intercreditor Agreements (a) to secure additional extensions of credit and add additional secured creditors holding First Priority Lien Obligations so long as such First Priority Lien Obligations are not prohibited by the provisions of the Indenture, (b) as provided for in provisions comparable to Section 2.11(b) of the form of Intercreditor Agreement

attached as Exhibit C to the Indenture, (c) to add the Issuer or any Guarantor as a party to any Intercreditor Agreement to the extent such party Incurs any Secured Indebtedness that constitutes First Priority Lien Obligations in accordance with the terms of the Indenture or to remove the Issuer or any Guarantor as a party to any Intercreditor Agreement to the extent such party ceases to be bound by any and all First Priority Lien Obligations or (d) to accommodate and implement the Liens contemplated by clause (20)(z) of the definition of "Permitted Liens".

15. Defaults and Remedies

If an Event of Default (other than an Event of Default relating to certain events of bankruptcy, insolvency or reorganization with respect to the Issuer) occurs and is continuing, the Trustee or the Holders of at least 25% in principal amount of outstanding Securities by notice to the Issuer may, and if such notice is given by the Holders such notice shall be given to the Issuer and the Trustee, declare that the principal of, and the premium, if any, and accrued but unpaid interest on, all the Securities is due and payable. Upon such a declaration, such principal and interest shall be due and payable immediately. If an Event of Default relating to certain events of bankruptcy, insolvency or reorganization with respect to the Issuer occurs, the principal of, and the premium, if any, and accrued but unpaid interest on, all the Securities shall *ipso facto* become and be immediately due and payable, without any declaration or other act on the part of the Trustee or any Holders. Under certain circumstances, the Holders of a majority in principal amount of the Securities may rescind any such acceleration with respect to the Securities and its consequences.

Except to enforce the right to receive payment of principal, premium (if any) or interest when due, no Holder may pursue any remedy with respect to the Indenture or the Securities unless (i) such Holder gives the Trustee written notice stating that an Event of Default is continuing, (ii) the Holders of at least 25% in principal amount of the Securities make a written request to the Trustee to pursue the remedy, (iii) such Holder or Holders offer to the Trustee security or indemnity satisfactory to it against any loss, liability or expense, (iv) the Trustee does not comply with such request within 60 days after the receipt of the request and the offer of security or indemnity and (v) the Holders of a majority in principal amount of the Securities do not give the Trustee a direction inconsistent with such request during such 60-day period. Subject to certain restrictions set forth in the Indenture, the Holders of a majority in principal amount of the Securities may direct the time, method and place of conducting any proceeding for any remedy available to the Trustee or of exercising any trust or power conferred on the Trustee. The Trustee, however, may refuse to follow any direction that conflicts with law or the Indenture or, subject to the Indenture, that the Trustee determines is unduly prejudicial to the rights of any other Holder or that would involve the Trustee in personal liability. Prior to taking any action under the Indenture, the Trustee shall be entitled to indemnification satisfactory to it in its sole discretion against all losses and expenses caused by taking or not taking such action.

16. Trustee Dealings with the Issuer

Subject to certain limitations imposed by the TIA, the Trustee under the Indenture, in its individual or any other capacity, may become the owner or pledgee of Securities and may otherwise deal with the Issuer or its Affiliates with the same rights it would have if it were not Trustee.

17. No Recourse Against Others

No director, officer, employee, manager, incorporator or holder of any Equity Interests in the Issuer or in any Guarantor, as such, shall have any liability for any obligations of the Issuer or the Guarantors under the Securities or the Indenture or for any claim based on, in respect of, or by reason of, such obligations or their creation. Each Holder of Securities by accepting a Security waives and releases all such liability.

18. Authentication

This Security shall not be valid until an authorized signatory of the Trustee (or an authenticating agent) manually signs the certificate of authentication on this Security.

19. Abbreviations

Customary abbreviations may be used in the name of a Holder or an assignee, such as TEN COM (=tenants in common), TEN ENT (=tenants by the entireties), JT TEN (=joint tenants with rights of survivorship and not as tenants in common), CUST (=custodian), and U/G/M/A (=Uniform Gift to Minors Act).

20. Governing Law

THIS SECURITY SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK WITHOUT REGARD TO PRINCIPLES OF CONFLICTS OF LAW (OTHER THAN SECTIONS 5-1401 AND 5-1402 OF THE NEW YORK GENERAL OBLIGATIONS LAW).

21. CUSIP Numbers; ISINs

The Issuer has caused CUSIP numbers and ISINs to be printed on the Securities and has directed the Trustee to use CUSIP numbers and ISINs in notices (including notices of redemption) as a convenience to the Holders. No representation is made as to the correctness of such numbers either as printed on the Securities or as contained in any notice and reliance may be placed only on the other identification numbers placed thereon.

The Issuer will furnish to any Holder of Securities upon written request and without charge to the Holder a copy of the Indenture, which has in it the text of this Security.

ASSIGNMENT FORM

To assign this Security, fill in the form below:

I or we assign and transfer this Security to:

(Print or type assignee's name, address and zip code)

(Insert assignee's soc. sec. or tax I.D. No.)

and irrevocably appoint _____ agent to transfer this Security on the books of the Issuer. The agent may substitute another to act for him or her.

Date: _____

Your Signature: _____

Sign exactly as your name appears on this Security.

Signature Guarantee: _____

Date: _____

Signature must be guaranteed by a participant in a recognized signature guaranty medallion program or other signature guarantor program reasonably acceptable to the Trustee

Signature of Signature Guarantee

CERTIFICATE TO BE DELIVERED UPON EXCHANGE OR
REGISTRATION OF TRANSFER OF RESTRICTED SECURITIES

This certificate relates to \$ _____ principal amount of Securities held in (check applicable space) _____ book-entry or _____ definitive form by the undersigned.

The undersigned (check one box below):

- has requested the Trustee by written order to deliver in exchange for its beneficial interest in the Global Security held by the Depository a Security or Securities in definitive, registered form of authorized denominations and an aggregate principal amount equal to its beneficial interest in such Global Security (or the portion thereof indicated above);
- has requested the Trustee by written order to exchange or register the transfer of a Security or Securities.

In connection with any transfer of any of the Securities evidenced by this certificate occurring prior to the expiration of the period referred to in Rule 144(d) (1) under the Securities Act, the undersigned confirms that such Securities are being transferred in accordance with its terms:

CHECK ONE BOX BELOW

- (1) to the Issuer or a Subsidiary thereof; or
- (2) to the Registrar for registration in the name of the Holder, without transfer; or
- (3) pursuant to an effective registration statement under the Securities Act of 1933; or
- (4) inside the United States to a "qualified institutional buyer" (as defined in Rule 144A under the Securities Act of 1933) that purchases for its own account or for the account of a qualified institutional buyer to whom notice is given that such transfer is being made in reliance on such Rule 144A, in each case pursuant to and in compliance with Rule 144A under the Securities Act of 1933; or
- (5) outside the United States in an offshore transaction within the meaning of Regulation S under the Securities Act in compliance with Rule 904 under the Securities Act of 1933 and such Security shall be held immediately after the transfer through Euroclear or Clearstream until the expiration of the Restricted Period; or
- (6) pursuant to another available exemption from registration provided by Rule 144 under the Securities Act of 1933.

Unless one of the boxes is checked, the Trustee will refuse to register any of the Securities evidenced by this certificate in the name of any Person other than the registered Holder thereof; *provided, however*, that if box (5) or (6) is checked, the Issuer or the Trustee may require, prior to registering any such transfer of the Securities, such legal opinions, certifications and other information as the Issuer or the Trustee have reasonably requested 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 of 1933.

Date: _____

Your Signature: _____

Signature Guarantee: _____

Date: _____

Signature must be guaranteed by a participant in a recognized signature guaranty medallion program or other signature guarantor program reasonably acceptable to the Trustee

Signature of Signature Guarantee _____

TO BE COMPLETED BY PURCHASER IF (4) ABOVE IS CHECKED.

The undersigned represents and warrants that it is purchasing this Security for its own account or an account with respect to which it exercises sole investment discretion and that it and any such account is a “qualified institutional buyer” within the meaning of Rule 144A under the Securities Act of 1933, and is aware that the sale to it is being made in reliance on such Rule 144A and acknowledges that it has received such information regarding the Issuer as the undersigned has requested pursuant to such Rule 144A or has determined not to request such information and that it is aware that the transferor is relying upon the undersigned’s foregoing representations in order to claim the exemption from registration provided by such Rule 144A.

Dated: _____

NOTICE: To be executed by an executive officer

SCHEDULE OF INCREASES OR DECREASES IN GLOBAL SECURITY

The initial principal amount of this Global Security is \$. The following increases or decreases in this Global Security have been made:

<u>Date</u>	<u>Amount of decrease in Principal Amount of this Global Security</u>	<u>Amount of increase in Principal Amount of this Global Security</u>	<u>Principal amount of this Global Security following such decrease or increase</u>	<u>Signature of authorized signatory of Trustee or Securities Custodian</u>
-------------	---	---	---	---

OPTION OF HOLDER TO ELECT PURCHASE

If you want to elect to have this Security purchased by the Issuer pursuant to Section 4.06 (Asset Sale) or 4.08 (Change of Control) of the Indenture, check the box:

Asset Sale

Change of Control

If you want to elect to have only part of this Security purchased by the Issuer pursuant to Section 4.06 (Asset Sale) or 4.08 (Change of Control) of the Indenture, state the amount (\$1,000 or any integral multiple of \$1,000 in excess thereof):

\$ _____

Date: _____

Your Signature: _____
(Sign exactly as your name appears on this Security)

Signature Guarantee: _____

Signature must be guaranteed by a participant in a recognized signature guaranty medallion program or other signature guarantor program reasonably acceptable to the Trustee

{FORM OF}
SUPPLEMENTAL INDENTURE

This SUPPLEMENTAL INDENTURE (this “Supplemental Indenture”) dated as of _____, 20__ is among {GUARANTOR} (the “New Guarantor”), a subsidiary of Merrimack Pharmaceuticals, Inc. (the “Issuer”), the Issuer, {the existing guarantors (the “Existing Guarantors”) under the Indenture referred to below,} and U.S. Bank National Association, as trustee (the “Trustee”) and as collateral agent (the “Collateral Agent”) under such Indenture.

WITNESSETH:

WHEREAS the Issuer {and the Existing Guarantors} {has}{have} heretofore executed and delivered to the Trustee and the Collateral Agent an indenture (as amended, supplemented or otherwise modified, the “Indenture”) dated as of December 22, 2015, providing for the issuance of the Issuer’s 11.5% Senior Secured Notes due 2022 (the “Securities”);

WHEREAS Section 4.10 of the Indenture provides that under certain circumstances the Issuer is required to cause the New Guarantor to execute and deliver to the Trustee a supplemental indenture pursuant to which the New Guarantor shall guarantee the Issuer’s Obligations under the Securities and the Indenture pursuant to a Guarantee on the terms and conditions set forth herein and in the Indenture; and

WHEREAS, pursuant to Section 9.01(v) of the Indenture, the Trustee, the Issuer {and the Existing Guarantors} {is}{are} authorized to execute and deliver this Supplemental Indenture without notice to or consent of any Holder.

NOW THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt of which is hereby acknowledged, the New Guarantor, the Issuer{, the Existing Guarantors} and the Trustee mutually covenant and agree for the equal and ratable benefit of the Holders as follows:

1. Defined Terms. As used in this Supplemental Indenture, terms defined in the Indenture or in the recitals hereto are used herein as therein defined, except that the term “Holders” in this Supplemental Indenture shall refer to the term “Holders” as defined in the Indenture and the Trustee acting on behalf of and for the benefit of such Holders. The words “herein”, “hereof” and “hereby” and other words of similar import used in this Supplemental Indenture refer to this Supplemental Indenture as a whole and not to any particular section hereof.

2. Agreement to Guarantee. The New Guarantor hereby{, jointly and severally, with each Existing Guarantor,} irrevocably and unconditionally guarantees as a primary obligor and not merely as a surety on a senior basis to each Holder and to the Trustee and its successors and assigns the Guaranteed Obligations, on the terms and subject to the conditions set forth in Article 10 of the Indenture, and agrees to be bound by all other applicable provisions of the Indenture and the Securities and to perform all of the obligations and agreements of a Guarantor under the Indenture.

3. Notices. All notices or other communications to the New Guarantor shall be given as provided in Section 12.01 of the Indenture.

4. Ratification of Indenture; Supplemental Indentures Part of Indenture. Except as expressly amended hereby, the Indenture is in all respects ratified and confirmed and all the terms, conditions and provisions thereof shall remain in full force and effect. This Supplemental Indenture shall form a part of the Indenture for all purposes, and every Holder shall be bound hereby.

5. Governing Law. THIS SUPPLEMENTAL INDENTURE SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK WITHOUT REGARD TO PRINCIPLES OF CONFLICTS OF LAW (OTHER THAN SECTIONS 5-1401 AND 5-1402 OF THE NEW YORK GENERAL OBLIGATIONS LAW).

6. Trustee Makes No Representation. The Trustee makes no representation as to the validity or sufficiency of this Supplemental Indenture.

7. Counterparts. The parties may sign any number of copies of this Supplemental Indenture. Each signed copy shall be an original, but all of them together represent the same agreement.

8. Effect of Headings. The Section headings herein are for convenience of reference only and shall not affect the construction thereof.

IN WITNESS WHEREOF, the parties hereto have caused this Supplemental Indenture to be duly executed as of the date first above written.

{NEW GUARANTOR}

By: _____
Name: _____
Title: _____

MERRIMACK PHARMACEUTICALS, INC.

By: _____
Name: _____
Title: _____

{EXISTING GUARANTORS:}

{ANY EXISTING GUARANTORS}

By: _____
Name: _____
Title: _____

U.S. BANK NATIONAL ASSOCIATION, AS TRUSTEE

By: _____
Name:
Title:

U.S. BANK NATIONAL ASSOCIATION, AS
COLLATERAL AGENT

By: _____
Name:
Title:

[FORM OF]

LIEN SUBORDINATION AND INTERCREDITOR AGREEMENT

dated as of

[],

among

**U.S. BANK NATIONAL ASSOCIATION,
as Trustee,**

**U.S. BANK NATIONAL ASSOCIATION,
as Noteholder Collateral Agent,**

[],
as ABL Collateral Agent,

MERRIMACK PHARMACEUTICALS, INC.,

and

its Subsidiaries signatory hereto

LIEN SUBORDINATION AND INTERCREDITOR AGREEMENT (this “**Agreement**”) dated as of [], among U.S. Bank National Association, as Trustee (as defined below) under the Indenture referred to herein, U.S. Bank National Association, as Noteholder Collateral Agent (as defined below) for the Noteholder Secured Parties referred to herein, [], as ABL Collateral Agent (as defined below) for the applicable ABL Secured Parties referred to herein, MERRIMACK PHARMACEUTICALS, INC., a Delaware corporation (the “**Company**”), and each subsidiary of the Company that is a signatory hereto.

Reference is made to (a) each ABL Agreement (such term and each other capitalized term used and not otherwise defined herein having the meaning assigned to it in Article I), from time to time, under which the ABL Lenders party to such ABL Agreement have extended and/or agreed to extend credit to the Company or any of its subsidiaries party to such ABL Agreement and (b) the Indenture governing the Notes. In consideration of the mutual agreements herein contained and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Trustee (for itself and on behalf of the Noteholders), the Noteholder Collateral Agent (for itself and on behalf of the Noteholder Secured Parties), the ABL Collateral Agent with respect to an ABL Agreement (for itself and on behalf of the applicable ABL Secured Parties), the Company and the subsidiaries of the Company party hereto agree as follows:

ARTICLE I

Definitions

SECTION 1.01 *Construction Certain Defined Terms.* (a) The definitions of terms herein shall apply equally to the singular and plural forms of the terms defined. Whenever the context may require, any pronoun shall include the corresponding masculine, feminine and neuter forms. The words “include”, “includes” and “including” shall be deemed to be followed by the phrase “without limitation”. The word “will” shall be construed to have the same meaning and effect as the word “shall”. Unless the context requires otherwise, (i) any definition of or reference to any agreement, instrument, other document, statute or regulation herein shall be construed as referring to such agreement, instrument, other document, statute or regulation as from time to time amended, supplemented or otherwise modified, (ii) any reference herein to any Person shall be construed to include such Person’s successors and assigns, but shall not be deemed to include the subsidiaries of such person unless express reference is made to such subsidiaries, (iii) the words “herein”, “hereof” and “hereunder”, and words of similar import, shall be construed to refer to this Agreement in its entirety and not to any particular provision hereof, (iv) all references herein to Articles, Sections and Annexes shall be construed to refer to Articles, Sections and Annexes of this Agreement, (v) the words “asset” and “property” shall be construed to have the same meaning and effect and to refer to any and all tangible and intangible assets and properties, including cash, securities, accounts and contract rights and (vi) the term “or” is not exclusive.

(b) As used in this Agreement, the following terms have the meanings specified below:

“ABL Agreement” means any debt facility, commercial paper facility, debt securities, indenture or other form of debt financing (including convertible or exchangeable debt instruments or bank guarantees or bankers’ acceptances) or other instruments or agreements evidencing Secured Bank Indebtedness (as such term is defined in the Indenture), as amended, extended, renewed, restated, supplemented, waived, replaced, restructured, repaid, refunded, refinanced or otherwise modified from time to time, with the same or different borrowers, lenders, noteholders or other creditors and agents.

“ABL Collateral” means, with respect to ABL Obligations under an ABL Agreement and the related ABL Security Documents, all assets and properties subject to Liens created by such ABL Security Documents to secure such ABL Obligations.

“ABL Collateral Agent” means, with respect to ABL Obligations under an ABL Agreement and the related ABL Security Documents, the applicable collateral agent (or similar agent party) in its capacity as collateral agent (or similar agent) under such ABL Documents or ABL Lender if acting as sole lender thereunder, and its successors in such capacity.

“ABL Documents” means, with respect to ABL Obligations under an ABL Agreement and the related ABL Security Documents, such ABL Agreement and such ABL Security Documents.

“ABL First Lien Collateral” means, with respect to ABL Obligations under an ABL Agreement and the related ABL Security Documents, any and all of the following ABL Collateral now owned or at any time hereafter acquired by the Company or any other Grantor under such ABL Security Documents (but solely to the extent that the Company or any such Grantor, as the case may be, is a party to such ABL Security Documents, and solely to the extent such party has granted an ABL Lien on such ABL Collateral pursuant to such ABL Security Documents): (a) all Inventory; (b) all Accounts arising from the sale of Inventory or provision of services; (c) to the extent evidencing, governing or securing the obligations of Account Debtors in respect of the items referred to in the preceding clauses (a) and (b), all (i) General Intangibles, (ii) Chattel Paper, (iii) Instruments, (iv) Documents, (v) Payment Intangibles (including tax refunds), other than any Payment Intangibles that represent tax refunds in respect of or otherwise relate to real property, Fixtures or Equipment, (vi) Supporting Obligations; (d) collection accounts and Deposit Accounts, including any Lockbox Account, and any cash or other assets in any such accounts constituting Proceeds of clause (a) or (b) (other than identifiable cash proceeds in respect of real estate, Fixtures or Equipment); (e) all indebtedness that arises from cash advances to enable the obligor or obligors thereon to acquire Inventory, and any Deposit Account into which such cash advances are deposited (provided no Proceeds from the sale of the Notes are deposited therein); (f) all books and records related to the foregoing; and (g) all Products and Proceeds of any and all of the foregoing in whatever form received, including proceeds of insurance policies related to Inventory or Accounts arising from the sale of Inventory of the Company or any other Grantor or provision of services by the Company or any other Grantor and business interruption insurance. All capitalized terms used in this definition and not defined elsewhere in this Agreement have the meanings assigned to them in the New York UCC.

“ABL First Lien Collateral Transition Date” means, with respect to ABL Obligations under an ABL Agreement and the related ABL Security Documents, the earlier of

(a) the date on which all such ABL Obligations shall have been paid in full (other than indemnity payments not yet accrued under such ABL Documents) and all commitments to extend credit under such ABL Agreement shall have been terminated and (b) the date on which all Senior Liens on the ABL First Lien Collateral securing such ABL Obligations shall have been released from the Liens created under such ABL Documents.

“ABL Lenders” means, with respect to ABL Obligations under an ABL Agreement and the related ABL Security Documents, the lenders or noteholders (or similar creditors) under such ABL Agreement.

“ABL Liens” means, with respect to ABL Obligations under an ABL Agreement and the related ABL Security Documents, Liens on the ABL Collateral created under such ABL Security Documents to secure such ABL Obligations.

“ABL Obligations” means all “Obligations” or “Secured Obligations” as such term is defined in an applicable ABL Document (or if “Obligations” or “Secured Obligations” is not defined therein, then all the liabilities and obligations under all ABL Documents purported to be secured pursuant to the related ABL Security Documents).

“ABL Secured Parties” means, with respect to ABL Obligations under an ABL Agreement and the related ABL Security Documents, at any time, the applicable ABL Collateral Agent, the applicable Administrative Agent, each applicable ABL Lender and each other holder of, or obligee in respect of, any such ABL Obligations outstanding at such time.

“ABL Security Documents” means, with respect to ABL Obligations under an ABL Agreement, such ABL Agreement (insofar as the same grants a Lien on any assets or properties of any Grantor or any of its subsidiaries to secure any such ABL Obligations), and any other documents now existing or entered into after the date hereof that grant a Lien on any assets or properties of any Grantor or any of its subsidiaries to secure any such ABL Obligations.

“Account” means “account”, as defined in Article 9 of the New York UCC.

“Administrative Agent” means, with respect to ABL Obligations under an ABL Agreement and the related ABL Security Documents, the applicable administrative agent (or similar agent party) in its capacity as administrative agent (or similar agent) under such ABL Documents, and its successors in such capacity.

“Bankruptcy Code” means Title 11 of the United States Code.

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

“Collateral” means all ABL Collateral and all Noteholder Collateral.

“**Company**” has the meaning set forth in the recitals hereto.

“**Deposit Account**” means a “deposit account” (as defined in Article 9 of the New York UCC) in which funds are held or invested for credit to or for the benefit of the Company or any other Grantor.

“**Event of Default**” means an “Event of Default” under and as defined in an ABL Agreement or the Indenture, as the context may require.

“**Federal Deposit Insurance Corporation**” means the Federal Deposit Insurance Corporation or any successor thereto.

“**Grantor**” means the Company and each subsidiary of the Company that shall have granted any Lien in favor of an ABL Collateral Agent or the Noteholder Collateral Agent on any of its assets or properties to secure any of the Obligations.

“**Indenture**” means the Indenture dated as of December 22, 2015, among the Company, the other Grantors from time to time party thereto, the Trustee and the Noteholder Collateral Agent, as amended, extended, renewed, restated, supplemented, waived, replaced, restructured, repaid, refunded, refinanced or otherwise modified from time to time, with the Trustee or a different trustee.

“**Junior Collateral**” means, with respect to each Junior Representative, the Collateral in respect of which such Junior Representative (on behalf of itself and the applicable Junior Secured Parties) holds a Junior Lien.

“**Junior Documents**” means (a) with respect to the Noteholder First Lien Collateral, the ABL Documents with respect to ABL Obligations secured by Junior Liens on such Collateral, and (b) with respect to any ABL First Lien Collateral, the Noteholder Documents.

“**Junior Liens**” means (a) with respect to any ABL First Lien Collateral, the Noteholder Liens on such Collateral, and (b) with respect to the Noteholder First Lien Collateral, the ABL Liens, if any, on such Collateral.

“**Junior Representative**” means (a) with respect to the Noteholder First Lien Collateral, the ABL Collateral Agent with respect to ABL Obligations secured by Junior Liens, if any, on such Collateral, and (b) with respect to any ABL First Lien Collateral, the Noteholder Collateral Agent.

“**Junior Secured Obligations**” means (a) with respect to the Noteholder Obligations, the ABL Obligations (to the extent such ABL Obligations are secured by the Noteholder First Lien Collateral), and (b) with respect to ABL Obligations secured by any ABL First Lien Collateral, the Noteholder Obligations (to the extent such Noteholder Obligations are secured by such ABL First Lien Collateral).

“Junior Secured Parties” means (a) with respect to the Noteholder First Lien Collateral, the applicable ABL Secured Parties, and (b) with respect to the applicable ABL First Lien Collateral, the Noteholder Secured Parties.

“Junior Security Documents” means (a) with respect to any ABL First Lien Collateral, the Noteholder Security Documents, and (b) with respect to the Noteholder First Lien Collateral, the ABL Security Documents with respect to ABL Obligations secured by Junior Liens on such Collateral, if any.

“Lien” means, with respect to any asset, any mortgage, lien, pledge, charge, security interest or encumbrance of any kind in respect of such asset, whether or not filed, recorded or otherwise perfected under applicable law (including any conditional sale or other title retention agreement, any lease in the nature thereof, any other agreement to give a security interest in and any filing of or agreement to give any financing statement under the New York UCC (or equivalent statutes of any jurisdiction)).

“Lockbox Account” means any Deposit Account maintained at a depository institution whose customer deposits are insured by the Federal Deposit Insurance Corporation (to the extent required by law), into which account are paid solely the Proceeds of Inventory and Accounts that constitute ABL Collateral. All capitalized terms used in this definition and not defined elsewhere herein have the meaning assigned to them in the New York UCC.

“New York UCC” means the Uniform Commercial Code as from time to time in effect in the State of New York.

“Noteholder Collateral” means all assets and properties subject to Liens created by the Noteholder Security Documents to secure the Noteholder Obligations.

“Noteholder Collateral Agent” means U.S. Bank National Association, in its capacity as collateral agent under the Indenture and the Noteholder Security Documents, and its successors in such capacity.

“Noteholder Documents” means the Indenture, the Notes and the Noteholder Security Documents.

“Noteholder First Lien Collateral” means any and all Noteholder Collateral other than, with respect to ABL Obligations under an ABL Agreement and the related ABL Security Documents, the related ABL First Lien Collateral.

“Noteholder Liens” means Liens on the Noteholder Collateral created under the Noteholder Security Documents to secure the Noteholder Obligations.

“Noteholder Obligations” means the “Obligations” as such term is defined in the Noteholder Security Agreement.

“Noteholder Secured Parties” means, at any time, the Noteholder Collateral Agent, the Co-Collateral Agents (as defined in the Noteholder Security Agreement), each Noteholder, the Trustee and each other holder of, or obligee in respect of, any Noteholder Obligations outstanding at such time.

“Noteholder Security Agreement” means the Collateral Agreement dated as of December 22, 2015, among the Company, the subsidiaries of the Company from time to time party thereto, the Trustee and the Noteholder Collateral Agent for the benefit of the Noteholder Secured Parties, as amended, supplemented, restated, renewed, refunded, replaced, restructured, repaid, refinanced or otherwise modified from time to time.

“Noteholder Security Documents” means the Noteholder Security Agreement and any other documents (including any copyright, patent and trademark security or pledge agreements, if applicable) now existing or entered into after the date hereof that grant a Lien on any assets or properties of any Grantor or any of its subsidiaries to secure the Noteholder Obligations.

“Noteholders” means the Noteholders (or the Holders) under and as defined in the Indenture.

“Notes” means the 11.5% Senior Secured Notes due 2022 issued under the Indenture.

“Obligations” means the Noteholder Obligations and the ABL Obligations.

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

“Representative” means (a) in the case of any Noteholder Obligations, the Noteholder Collateral Agent, and (b) in the case of any ABL Obligations, the ABL Collateral Agent applicable thereto.

“Secured Parties” means (a) the Noteholder Secured Parties and (b) the ABL Secured Parties.

“Security Documents” means (a) the Noteholder Security Documents and (b) the ABL Security Documents.

“Senior Collateral” means, with respect to each Senior Representative, the Collateral in respect of which such Senior Representative (on behalf of itself and the applicable Senior Secured Parties) holds a Senior Lien.

“Senior Liens” means (a) with respect to the Noteholder First Lien Collateral, the Noteholder Liens on such Collateral and (b) with respect to any ABL First Lien Collateral, the ABL Liens on such Collateral.

“Senior Representative” means (a) with respect to the Noteholder First Lien Collateral, the Noteholder Collateral Agent, and (b) with respect to any ABL First Lien Collateral, the ABL Collateral Agent with respect to ABL Obligations secured by Senior Liens on such Collateral.

“Senior Secured Obligations” means (a) with respect to the ABL Obligations (to the extent such Obligations are secured by the Noteholder First Lien Collateral), the Noteholder Obligations, and (b) with respect to the Noteholder Obligations (to the extent such Obligations are secured by any ABL First Lien Collateral), the ABL Obligations secured by Senior Liens on such ABL First Lien Collateral.

“Senior Secured Parties” means (a) with respect to the Noteholder First Lien Collateral, the Noteholder Secured Parties, and (b) with respect to any ABL First Lien Collateral, the ABL Secured Parties with respect to ABL Obligations secured by Senior Liens on such Collateral.

“Senior Security Documents” means (a) with respect to any ABL First Lien Collateral, the ABL Security Documents with respect to ABL Obligations secured by Senior Liens on such Collateral, and (b) with respect to the Noteholder First Lien Collateral, the Noteholder Security Documents.

“subsidiary” means, with respect to any Person, (a) any corporation, association or other business entity (other than a partnership, joint venture or limited liability company) of which more than 50% of the total voting power of the Capital Stock entitled (without regard to the occurrence of any contingency) to vote in the election of directors, managers or trustees thereof is at the time of determination owned or controlled, directly or indirectly, by such Person or one or more of the other subsidiaries of that Person or a combination thereof, and (b) any partnership, joint venture or limited liability company of which (x) more than 50% of the capital accounts, distribution rights, total equity and voting interests or general and limited partnership interests, as applicable, are owned or controlled, directly or indirectly, by such Person or one or more of the other subsidiaries of that Person or a combination thereof, whether in the form of membership, general, special or limited partnership interests or otherwise, and (y) such Person or any subsidiary of such person is a controlling general partner or otherwise controls such entity.

“Trustee” means U.S. Bank National Association, in its capacity as trustee under the Indenture, and its successors in such capacity.

ARTICLE II

Subordination of Junior Liens; Certain Agreements

SECTION 2.01 **Subordination of Junior Liens.** (a) At any time when any Senior Secured Obligations secured by Senior Collateral shall be outstanding or any commitments to extend credit that would constitute Senior Secured Obligations secured by a Senior Lien shall be in effect, all Junior Liens in respect of such Collateral are expressly subordinated and made junior in right, priority, operation and effect to any and all Senior Liens in respect of such Collateral, notwithstanding anything contained in this Agreement, the Noteholder Documents, the applicable ABL Documents or any other agreement or instrument to the contrary, and irrespective of the time, order or method of creation, attachment or perfection of such Junior Liens and such Senior Liens or any defect or deficiency or alleged defect or

deficiency in any of the foregoing. For the avoidance of doubt, subject to the limitations set forth in the Indenture, the Senior Secured Obligations (secured by a Senior Lien on ABL First Lien Collateral) with respect to Noteholder Obligations may be created from time to time even if no Senior Secured Obligations exist immediately prior to such creation.

(b) It is acknowledged that, so long as Senior Secured Obligations secured by Senior Collateral shall be outstanding or any commitments to extend credit that would constitute Senior Secured Obligations secured by a Senior Lien shall be in effect, (i) all or a portion of the Senior Secured Obligations consists or may consist of Indebtedness that is revolving in nature, and the amount thereof that may be outstanding at any time or from time to time may be increased or repaid and subsequently reborrowed and (ii) the Senior Secured Obligations may, subject to the limitations set forth in the Indenture and the applicable ABL Agreement, be increased, extended, renewed, replaced, restated, supplemented, restructured, repaid, refunded, refinanced or otherwise amended or modified from time to time, all without affecting the subordination of the Junior Liens in respect of such Collateral or the provisions of this Agreement defining the relative rights of the applicable Senior Secured Parties and the applicable Junior Secured Parties. So long as Senior Secured Obligations secured by Senior Collateral shall be outstanding or any commitments to extend credit that would constitute Senior Secured Obligations secured by a Senior Lien shall be in effect, the lien priorities provided for herein shall not be altered or otherwise affected by any amendment, modification, supplement, extension, increase, replacement, renewal, restatement or refinancing of either the applicable Junior Secured Obligations or the applicable Senior Secured Obligations to the extent permitted by the Indenture, by the release of any such Collateral or of any guarantees securing any such Senior Secured Obligations or by any action that any Representative or Secured Party may take or fail to take in respect of any such Collateral or by the avoidance, invalidation or lapse of any Lien on any such Collateral.

SECTION 2.02 No Action With Respect to Junior Collateral Subject to Senior Liens. No Junior Representative or other Junior Secured Party shall commence or instruct any Junior Representative to commence any judicial or non-judicial foreclosure proceedings with respect to, seek to have a trustee, receiver, liquidator or similar official appointed for or over, attempt any action to take possession of, exercise any right, remedy or power with respect to, or otherwise take any action to enforce its interest in or realize upon, or take any other action available to it in respect of, any of its Junior Collateral under any Junior Security Document, applicable law or otherwise, at any time when such Junior Collateral shall be subject to any Senior Lien and any Senior Secured Obligations secured by such Senior Lien shall remain outstanding or any commitment to extend credit that would constitute Senior Secured Obligations secured by such Senior Lien shall remain in effect, it being agreed that only the Senior Representative with respect to such Collateral, acting in accordance with the applicable Senior Security Documents, shall be entitled to take any such actions or exercise any such remedies. Notwithstanding the foregoing, any Junior Representative may, subject to Section 2.05, take all such actions as it shall deem necessary to perfect or continue the perfection of its Junior Liens.

SECTION 2.03 No Duties of Senior Representative. (a) Each Junior Secured Party acknowledges and agrees that neither the applicable Senior Representative nor any other Senior Secured Party shall have any duties or other obligations to such Junior Secured Party with

respect to any Senior Collateral, other than to transfer to the applicable Junior Representative (i) any proceeds of any such Collateral that constitutes Junior Collateral remaining in its possession following any sale, transfer or other disposition of such Collateral, the payment and satisfaction in full of the Senior Secured Obligations secured thereby and the termination of any commitment to extend credit that would constitute Senior Secured Obligations secured thereby (in each case, unless the Junior Liens on all such Junior Collateral are terminated and released prior to or concurrently with such transaction), or, (ii) if such Senior Representative shall be in possession of all or any part of such Collateral after such payment and satisfaction in full and termination, such Collateral or any part thereof remaining, in each case without representation or warranty on the part of such Senior Representative or any Senior Secured Party. In furtherance of the foregoing, each Junior Secured Party acknowledges and agrees that until the Senior Secured Obligations secured by any Collateral in respect of which such Junior Secured Party holds a Junior Lien shall have been paid and satisfied in full and any commitment to extend credit that would constitute Senior Secured Obligations secured thereby shall have been terminated, the applicable Senior Representative shall be entitled, for the benefit of the holders of such Senior Secured Obligations, to sell, transfer or otherwise dispose of or deal with such Senior Collateral as provided herein and in compliance with the Senior Security Documents and applicable law without regard to any Junior Lien or any rights to which the holders of the applicable Junior Secured Obligations would otherwise be entitled as a result of such Junior Lien. Without limiting the foregoing, each Junior Secured Party agrees that neither the applicable Senior Representative nor any other Senior Secured Party shall have any duty or obligation first to marshal or realize upon any type of Senior Collateral (or any other collateral securing any Senior Secured Obligations on which the Senior Secured Party has a Senior Lien), or to sell, dispose of or otherwise liquidate all or any portion of such Collateral (or any other collateral securing any Senior Secured Obligations on which the Senior Secured Party has a Senior Lien), in any manner that would maximize the return to the applicable Junior Secured Parties, notwithstanding that the order and timing of any such realization, sale, disposition or liquidation may affect the amount of proceeds actually received by such Junior Secured Parties from such realization, sale, disposition or liquidation.

(b) Each of the Junior Secured Parties waives any claim such Junior Secured Party may now or hereafter have against any Senior Representative or any other Senior Secured Party (or their representatives) arising out of (i) any actions which any Senior Representative or any Senior Secured Parties take or omit to take (including, actions with respect to the creation, perfection or continuation of Liens on any of its Senior Collateral, actions with respect to the foreclosure upon, sale, release or depreciation of, or failure to realize upon, any of such Collateral and actions with respect to the collection of any claim for all or any part of any Senior Secured Obligations from any account debtor, guarantor or any other party) in accordance with the applicable Senior Security Documents, any other agreement related thereto or applicable law or to the collection of any Senior Secured Obligations or the valuation, use, protection or release of any security for any Senior Secured Obligations, (ii) any election by any Senior Representative or any Senior Secured Parties, in any proceeding instituted under the Bankruptcy Code, of the application of Section 1111(b) of the Bankruptcy Code (or under any other applicable foreign bankruptcy, insolvency, receivership or similar law) (iii) any borrowing by the Company or any of its subsidiaries, as debtor-in-possession, including any grant of a security interest, adequate protection, or administrative expense priority under Section 364 of the Bankruptcy Code to any party in connection with such borrowing, or (iv) any use of cash

collateral by the Company or any of its subsidiaries, as debtor-in-possession, including any grant or award of adequate protection under Section 363 of the Bankruptcy Code to any party in connection with such use of cash collateral.

SECTION 2.04 *No Interference; Payment Over; Reinstatement.* (a) At any time when any Senior Secured Obligations secured by Senior Collateral shall be outstanding or any commitments to extend credit that would constitute Senior Secured Obligations secured by a Senior Lien shall be in effect, each respective Junior Secured Party agrees that (i) it will not take or cause to be taken any action the purpose or effect of which is, or could be, to make any respective Junior Lien pari passu with, or to give such Junior Secured Party any preference or priority relative to, any Senior Lien with respect to the Collateral subject to such Senior Lien and Junior Lien or any part thereof, (ii) it will not challenge or question in any proceeding the validity or enforceability of any such Senior Secured Obligations or Senior Security Document, or the validity, attachment, perfection or priority of any such Senior Lien, or the validity or enforceability of the priorities, rights or duties established by or other provisions of this Agreement, (iii) it will not take or cause to be taken any action the purpose or intent of which is, or could be, to contest, interfere, hinder or delay, in any manner, whether by judicial proceedings or otherwise, any sale, transfer or other disposition of the Collateral subject to such Junior Lien by any such Senior Secured Parties secured by Senior Liens on such Collateral or any Senior Representative acting on their behalf, (iv) it shall have no right to (A) direct any Senior Representative or any holder of Senior Secured Obligations to exercise any right, remedy or power with respect to the Collateral subject to such Junior Lien or (B) consent to the exercise by any Senior Representative or any other Senior Secured Party of any right, remedy or power with respect to the Collateral subject to such Junior Lien, (v) it will not institute any suit or assert in any suit, bankruptcy, insolvency or other proceeding any claim against any Senior Representative or other Senior Secured Party seeking damages from or other relief by way of specific performance, instructions or otherwise with respect to, and neither any Senior Representative nor any other Senior Secured Party shall be liable for, any action taken or omitted to be taken by such Senior Representative or other Senior Secured Party with respect to any Collateral securing such Senior Secured Obligations that is subject to such Junior Lien, (vi) it will not seek, and hereby waives any right, to have any Senior Collateral subject to such Junior Lien or any part thereof marshaled upon any foreclosure or other disposition of such Collateral and (vii) it will not attempt, directly or indirectly, whether by judicial proceedings or otherwise, to challenge the enforceability of any provision of this Agreement.

(b) Each Junior Representative and each other Junior Secured Party hereby agrees that if it shall obtain possession of any respective Senior Collateral or shall realize any proceeds or payment in respect of any such Collateral, pursuant to any Junior Security Document or by the exercise of any rights available to it under applicable law or in any bankruptcy, insolvency or similar proceeding or through any other exercise of remedies, at any time when any Senior Secured Obligations secured or intended to be secured by such Collateral shall remain outstanding or any commitment to extend credit that would constitute Senior Secured Obligations secured or intended to be secured by such Senior Lien shall remain in effect, then it shall hold such Collateral, proceeds or payment in trust or as agent, as the case may be, for the applicable Senior Secured Parties and transfer such Collateral, proceeds or payment, as the case may be, to the applicable Senior Representative promptly after obtaining actual knowledge or notice from the applicable Senior Secured Parties that it has possession of such

Senior Collateral or proceeds or payments in respect thereof. Each Junior Secured Party agrees that if, at any time, it receives notice or obtains actual knowledge that all or part of any payment with respect to any respective Senior Secured Obligations previously made shall be rescinded for any reason whatsoever, such Junior Secured Party shall promptly pay over to the applicable Senior Representative any payment received and then held by it in respect of any Collateral subject to any Senior Lien securing such Senior Secured Obligations and shall promptly turn any Collateral subject to any such Senior Lien then held by it over to the applicable Senior Representative, and the provisions set forth in this Agreement shall be reinstated as if such payment had not been made, until the payment and satisfaction in full of such Senior Secured Obligations.

SECTION 2.05 *Automatic Release of Junior Liens.* (a) Each Junior Representative and each other Junior Secured Party agree that in the event of a sale, transfer or other disposition of any Senior Collateral subject to any Junior Lien in favor of such Junior Secured Representative or such Junior Secured Party (regardless of whether or not an Event of Default has occurred and is continuing under the applicable Junior Documents at the time of such sale, transfer or other disposition), such Junior Lien on such Collateral shall terminate and be released automatically and without further action if the applicable Senior Liens on such Collateral are released and if such sale, transfer or other disposition either (x) is then not prohibited by such Junior Documents or (y) occurs in connection with the foreclosure (including by a Senior Representative or other Senior Secured Party) upon or other exercise of rights and remedies with respect to such Senior Collateral, *provided* that such Junior Lien shall remain in place with respect to any proceeds of a sale, transfer or other disposition under this clause (a) that remain after the satisfaction in full of such Senior Secured Obligations.

(b) Each Junior Representative agrees to execute and deliver (at the sole cost and expense of the Grantors) all such releases and other instruments as shall reasonably be requested by any applicable Senior Representative to evidence and confirm any release of Junior Collateral provided for in this Section, and upon the Junior Representative's failure to do so within the prescribed time frame set forth in New York UCC Section 9-513(b) or (c), as applicable, the appropriate Senior Representative is hereby granted a limited power of attorney to execute any necessary UCC-3 filing or similar document necessary to effect such a release.

SECTION 2.06 *Certain Agreements With Respect to Bankruptcy or Insolvency Proceedings.* (a) This Agreement shall continue in full force and effect notwithstanding the commencement of any proceeding under the Bankruptcy Code or any other Federal, state or foreign bankruptcy, insolvency, receivership or similar law by or against the Company or any of its subsidiaries.

(b) So long as any Senior Secured Obligations secured by Senior Collateral shall be outstanding or any commitments to extend credit that would constitute Senior Secured Obligations secured by a Senior Lien shall be in effect, if the Company or any of its subsidiaries shall become subject to a case under the Bankruptcy Code (or under any other applicable foreign bankruptcy, insolvency, receivership or similar law) and shall, as debtor(s)-in-possession, move for approval of financing ("**DIP Financing**") to be provided by one or more lenders (the "**DIP Lenders**") under Section 364 of the Bankruptcy Code (or under any other applicable foreign bankruptcy, insolvency, receivership or similar law) or the use of cash collateral with the consent

of the DIP Lenders under Section 363 of the Bankruptcy Code (or under any other applicable foreign bankruptcy, insolvency, receivership or similar law), each Junior Secured Party agrees that it will raise no objection to (and, upon the grant or award of adequate protection acceptable to the holders of Senior Secured Obligations with comparable adequate protection granted or awarded to the ABL Collateral Agent or the Noteholder Collateral Agent and Trustee, as applicable, junior in priority only to that of the holders of Senior Secured Obligations, shall affirmatively consent to) any such financing to the extent secured by Liens on any respective Senior Collateral securing the same ("**DIP Financing Liens**") or to any use of cash collateral that constitutes such Senior Collateral, unless the applicable Senior Secured Parties, or a representative authorized by such Senior Secured Parties, shall then oppose or object to such DIP Financing or such DIP Financing Liens or use of cash collateral (and, to the extent that such DIP Financing Liens are senior to, or rank *pari passu* with, the applicable Senior Liens, the applicable Junior Representative will, for itself and on behalf of the other applicable Junior Secured Parties, subordinate the Junior Liens on such Senior Collateral to such Senior Liens and the DIP Financing Liens), so long as each Secured Party retains Liens on all the applicable Collateral, including proceeds thereof arising after the commencement of such proceeding, with the same relative priority as existed prior to the commencement of the case under the Bankruptcy Code (or under any other applicable foreign bankruptcy, insolvency, receivership or similar law).

(c) So long as any Senior Secured Obligations secured by Senior Collateral shall be outstanding or any commitments to extend credit that would constitute Senior Secured Obligations secured by a Senior Lien shall be in effect, each Junior Secured Party agrees that it will not object to or oppose a sale or other disposition of any Senior Collateral (or any portion thereof) under Section 363 of the Bankruptcy Code or any other provision of the Bankruptcy Code (or under any other applicable foreign bankruptcy, insolvency, receivership or similar law) if the applicable Senior Secured Parties shall have consented to such sale or disposition of such Senior Collateral.

SECTION 2.07 Reinstatement. In the event that any of the Senior Secured Obligations shall be paid in full and such payment or any part thereof shall subsequently, for whatever reason (including an order or judgment for disgorgement of a preference under Title 11 of the Bankruptcy Code (or under any other applicable foreign bankruptcy, insolvency, receivership or similar law) or the settlement of any claim in respect thereof), be required to be returned or repaid, the terms and conditions of this Article II shall be fully applicable thereto until all such Senior Secured Obligations shall again have been paid in full in cash.

SECTION 2.08 Entry Upon Premises by the ABL Collateral Agent and the ABL Lenders. (a) So long as any Senior Secured Obligations secured by Senior Collateral shall be outstanding or any commitments to extend credit that would constitute Senior Secured Obligations secured by a Senior Lien shall be in effect, if any ABL Collateral Agent takes any enforcement action with respect to any ABL First Lien Collateral on which it holds ABL Liens, the Noteholder Secured Parties (i) shall cooperate with such ABL Collateral Agent (at the sole cost and expense of such ABL Collateral Agent and subject to the condition that the Noteholder Secured Parties shall have no obligation or duty to take any action or refrain from taking any action that could reasonably be expected to result in the incurrence of any liability or damage to the Noteholder Secured Parties) in its efforts to enforce its security interest in such ABL First Lien Collateral and to finish any work-in-process and assemble such ABL First Lien Collateral,

(ii) shall not hinder or restrict in any respect such ABL Collateral Agent from enforcing its security interest in such ABL First Lien Collateral or from finishing any work-in-process or assembling such ABL First Lien Collateral, and (iii) shall permit such ABL Collateral Agent, its employees, agents, advisers and representatives, at the sole cost and expense of the applicable ABL Secured Parties and upon reasonable advance notice, to enter upon and use the Noteholder First Lien Collateral (including (x) equipment, processors, computers and other machinery related to the storage or processing of records, documents or files and (y) intellectual property), for a period not to exceed 90 days after the taking of such enforcement action, for purposes of (A) assembling and storing such ABL First Lien Collateral and completing the processing of and turning into finished goods of such ABL First Lien Collateral consisting of work-in-process, (B) selling any or all of the applicable ABL First Lien Collateral located on or in such Noteholder First Lien Collateral, whether in bulk, in lots or to customers in the ordinary course of business or otherwise, (C) removing any or all of the applicable ABL First Lien Collateral located on such Noteholder First Lien Collateral, or (D) taking reasonable actions to protect, secure, and otherwise enforce the rights of the applicable ABL Secured Parties in and to any applicable ABL First Lien Collateral, *provided, however*, that nothing contained in this Agreement shall restrict the rights of the Trustee or the Noteholder Collateral Agent from selling, assigning or otherwise transferring any Noteholder First Lien Collateral prior to the expiration of such 90-day period if the purchaser, assignee or transferee thereof agrees to be bound by the provisions of this Section. If any stay or other order prohibiting the exercise of remedies with respect to the applicable ABL First Lien Collateral has been entered by a court of competent jurisdiction, such 90-day period shall be tolled during the pendency of any such stay or other order.

(b) In no event shall such ABL Secured Parties have any liability to the Noteholder Secured Parties pursuant to this Section as a result of any condition on or with respect to the Noteholder First Lien Collateral existing prior to the date of the exercise by such ABL Secured Parties of their rights under this Section and such ABL Secured Parties shall have no duty or liability to maintain the Noteholder First Lien Collateral in a condition or manner better than that in which it was maintained prior to the use thereof by such ABL Secured Parties, or for any diminution in the value of the Noteholder First Lien Collateral that results solely from ordinary wear and tear resulting from the use of the Noteholder First Lien Collateral by such ABL Secured Parties in the manner and for the time periods specified under this Section 2.08. Without limiting the rights granted in this paragraph, such ABL Secured Parties shall cooperate with the Noteholder Secured Parties in connection with any efforts made by the Noteholder Secured Parties to sell the Noteholder First Lien Collateral to the extent such ABL Secured Parties obtain any interest in the Noteholder First Lien Collateral, subject to the condition that no ABL Secured Party shall have any obligation or duty to take any action or refrain from taking any action that could reasonably be expected to result in its incurrance of any liability or damage.

SECTION 2.09 **Insurance.** Unless and until any ABL Collateral Agent has sent written notice to the Trustee that the applicable ABL Obligations have been paid in full and all commitments to extend credit under the applicable ABL Agreement shall have been terminated, as between such ABL Collateral Agent, on the one hand, and the Trustee and the Noteholder Collateral Agent, as the case may be, on the other hand, only such ABL Collateral Agent will have the right (subject to the rights of the Grantors under the applicable ABL Documents and the Noteholder Documents) to adjust or settle any insurance policy or claim covering or constituting any of the applicable ABL First Lien Collateral in the event of any loss thereunder and to

approve any award granted in any condemnation or similar proceeding solely affecting such ABL First Lien Collateral. Unless and until the Trustee has sent written notice to any ABL Collateral Agent that the Noteholder Obligations have been paid in full, as between such ABL Collateral Agent, on the one hand, and the Trustee and the Noteholder Collateral Agent, as the case may be, on the other hand, only the Noteholder Collateral Agent will have the right (subject to the rights of the Grantors under the applicable ABL Documents and the Noteholder Documents) to adjust or settle any insurance policy covering or constituting any applicable Noteholder First Lien Collateral in the event of any loss thereunder and to approve any award granted in any condemnation or similar proceeding solely affecting any applicable Noteholder First Lien Collateral. To the extent that an insured loss covers or constitutes both ABL First Lien Collateral and Noteholder First Lien Collateral, then the applicable ABL Collateral Agent and the Noteholder Collateral Agent will work jointly and in good faith to collect, adjust or settle (subject to the rights of the Grantors under the applicable ABL Documents and the Noteholder Documents) under the relevant insurance policy.

SECTION 2.10 *Refinancings.* Any ABL Obligations and the Noteholder Obligations may be refinanced or replaced (either immediately or after the passage of time), in whole or in part, in each case, without notice to, or the consent (except to the extent a consent is otherwise required to permit the refinancing transaction under any ABL Document or any Noteholder Document) of any ABL Secured Party or any Noteholder Secured Party, all without affecting the Lien priorities provided for herein or the other provisions hereof, *provided, however*, that the holders of any such refinancing or replacement indebtedness (or an authorized agent or trustee on their behalf) bind themselves in writing to the terms of this Agreement pursuant to such documents or agreements (including amendments or supplements to this Agreement) as any applicable ABL Collateral Agent or the Noteholder Collateral Agent, as the case may be, shall reasonably request and in form and substance reasonably acceptable to each such ABL Collateral Agent or the Noteholder Collateral Agent, as the case may be. In connection with any refinancing or replacement contemplated by this Section 2.10, this Agreement shall be amended at the request and sole expense of the Company, and without the consent of any Representative, (a) to add parties (or any authorized agent or trustee therefor) providing any such refinancing or replacement indebtedness, (b) to establish that Liens on any Noteholder First Lien Collateral securing such refinancing or replacement indebtedness shall have the same priority as the Liens on any Noteholder First Lien Collateral securing the indebtedness being refinanced or replaced and (c) to establish that the Liens on any ABL First Lien Collateral securing such refinancing or replacement indebtedness shall have the same priority as the Liens on any ABL First Lien Collateral securing the indebtedness being refinanced or replaced, all on the terms provided for herein immediately prior to such refinancing or replacement.

SECTION 2.11 *Amendments to Security Documents.* (a) Without the prior written consent of any applicable Senior Representative, no Junior Security Document may be amended, supplemented or otherwise modified or entered into to the extent such amendment, supplement or modification, or the terms of any new Junior Security Document, would be prohibited by, or would require any Grantor to act or refrain from acting in a manner that would violate, any of the terms of this Agreement.

(b) In the event that any Senior Representative enters into any amendment, waiver or consent in respect of any of the Senior Security Documents for the purpose of adding to, or deleting from, or waiving or consenting to any departures from any provisions of, any such Senior Security Document that relate directly to any Senior Collateral on which a Junior Lien exists or changing in any manner the rights of such Senior Representative, the applicable Senior Secured Parties, the Company or any other Grantor thereunder (including the release of any Liens on any applicable Senior Collateral permitted by Section 2.05), then such amendment, waiver or consent shall apply automatically to any comparable provision of the comparable Junior Security Document with respect to such Junior Lien without the consent of the applicable Junior Representative or any applicable Junior Secured Party and without any action by such Junior Representative, the Company or any other Grantor; *provided, however*, that written notice of such amendment, waiver or consent shall have been given by the Company to such Junior Representative no later than two (2) Business Days following its effectiveness; and *provided further*, that no such amendment, waiver or consent shall be effective to (i) release any Junior Liens (other than as permitted by Section 2.05), (ii) permit any Liens on the Collateral except Liens permitted under the Junior Documents or this Agreement, or (iii) impose duties on the Junior Representative without its consent. Reasonably promptly following such effectiveness, the Company shall prepare and deliver, or cause to be prepared and delivered to the applicable Junior Representative, forms of amendment documents to any applicable Junior Security Documents to evidence the amendments to such Junior Security Documents previously effected pursuant to this Section 2.11(b).

SECTION 2.12 **Legends.** Each ABL Collateral Agent acknowledges with respect to the applicable ABL Documents, and the Trustee and the Noteholder Collateral Agent acknowledge with respect to the Noteholder Documents, that each such agreement will contain the appropriate legend set forth on Annex I in substantially the same terms as set forth therein.

SECTION 2.13 **Permitted Liens.** Notwithstanding anything herein to the contrary, neither this Agreement nor any term or provision hereof shall be construed to permit any ABL Secured Party to obtain, receive or be the beneficiary of any Lien on all or any portion of any Collateral (other than the ABL Collateral, to the extent permitted under the terms of the Indenture), irrespective of the time, order or method of creation, attachment or perfection of such Lien, including any Lien arising by operation of law or in connection with any judgment.

ARTICLE III

Gratuitous Bailment for Perfection of Certain Security Interests; Rights Under Permits and Licenses

SECTION 3.01 **General.** Each Senior Representative agrees that if it shall at any time hold a Senior Lien on any Junior Collateral that can be perfected by the possession or control of such Collateral or of any account in which such Collateral is held, and if such Collateral or any such account is in fact in the possession or under the control of such Senior Representative, such Senior Representative will serve as gratuitous bailee for the applicable Junior Representative for the sole purpose of perfecting the Junior Lien of such Junior Representative on such Collateral. It is agreed that the obligations of such Senior Representative and the rights of such Junior Representative and the other applicable Junior Secured Parties in

connection with any such bailment arrangement will be in all respects subject to the provisions of Article II. Notwithstanding anything to the contrary herein, such Senior Representative will be deemed to make no representation as to the adequacy of the steps taken by it to perfect the Junior Lien on any such Collateral and shall have no responsibility, duty, obligation or liability to such Junior Representative or any other applicable Junior Secured Party or any other person for such perfection or failure to perfect, it being understood that the sole purpose of this Article is to enable the applicable Junior Secured Parties to obtain a perfected Junior Lien on such Collateral to the extent, if any, that such perfection results from the possession or control of such Collateral or any such account by such Senior Representative. Subject to Section 2.07, at such time as such Senior Secured Obligations secured by the applicable Senior Lien of such Senior Representative shall have been paid and satisfied in full and any commitment to extend credit that would constitute such Senior Secured Obligations shall have been terminated, such Senior Representative shall take all such actions in its power as shall reasonably be requested by such Junior Representative (at the sole cost and expense of the Grantors) to transfer possession or control of such Collateral or any such account (in each case to the extent such Junior Representative has a Lien on such Collateral or account after giving effect to any prior or concurrent releases of Liens) to such Junior Representative.

SECTION 3.02 *Collection Accounts.* The Company and its subsidiaries, to the extent required by an applicable ABL Document, shall maintain collection accounts relating to applicable ABL First Lien Collateral (the “**Collection Accounts**”, which term shall include any Lockbox Account relating to such ABL Document) in which collections from any Inventory and Accounts are deposited. The applicable ABL Collateral Agent will act as gratuitous bailee for the Trustee and the Noteholder Collateral Agent for the purpose of perfecting the Liens of the Noteholder Secured Parties in all such Collection Accounts and the cash and other assets therein as provided in Section 3.01 (but will have no duty, responsibility or obligation to the Noteholder Secured Parties except as set forth in the last sentence of this Section). Unless the Junior Liens on such ABL First Lien Collateral shall have been or concurrently are released, after the occurrence of the applicable ABL First Lien Collateral Transition Date, such ABL Collateral Agent shall at the request of the Noteholder Collateral Agent, cooperate with the Noteholder Collateral Agent (at the expense of the Grantors) in permitting “control” (as defined in Article 8 or Article 9 of the New York UCC) of any Collection Account to be transferred to the Noteholder Collateral Agent (or for other arrangements with respect to each such Collection Account satisfactory to the Noteholder Collateral Agent to be made) to the extent required by the Noteholder Security Documents.

SECTION 3.03 *Rights under Permits and Licenses.* The Trustee and the Noteholder Collateral Agent agree that if any ABL Collateral Agent shall require rights available under any permit or license controlled by the Trustee or the Noteholder Collateral Agent in order to realize on any applicable ABL First Lien Collateral, the Trustee or the Noteholder Collateral Agent, as the case may be, shall take all such actions as shall be available to it (at the sole expense of the Grantors), consistent with applicable law and reasonably requested by such ABL Collateral Agent, to make such rights available to such ABL Collateral Agent, subject to the Noteholder Liens. Each ABL Collateral Agent agrees that if the Trustee or the Noteholder Collateral Agent shall require rights available under any permit or license controlled by such ABL Collateral Agent in order to realize on any Noteholder First Lien Collateral, such ABL Collateral Agent shall take all such actions as shall be available to it (at the sole expense of the

Grantors), consistent with applicable law and reasonably requested by the Trustee or the Noteholder Collateral Agent, as the case may be, to make such rights available to the Trustee or the Noteholder Collateral Agent, as the case may be, subject to the applicable ABL Liens.

ARTICLE IV

Existence and Amounts of Liens and Obligations

Whenever a Representative shall be required, in connection with the exercise of its rights or the performance of its obligations hereunder, to determine the existence or amount of any Senior Secured Obligations (or the existence of any commitment to extend credit that would constitute Senior Secured Obligations) or Junior Secured Obligations (or the existence of any commitment to extend credit that would constitute Junior Secured Obligations), or the existence of any Lien securing any such obligations, or the Collateral subject to any such Lien, it may request that such information be furnished to it in writing by the other applicable Representative and shall be entitled to make such determination on the basis of the information so furnished *provided*, however, that if a Representative shall fail or refuse reasonably promptly to provide the requested information, the requesting Representative shall be entitled to make any such determination by such method as it may, in the exercise its good faith judgment, determine, including by reliance upon a certificate of the Company. Each Representative may rely conclusively, and shall be fully protected in so relying, on any determination made by it in accordance with the provisions of the preceding sentence (or as otherwise directed by a court of competent jurisdiction) and shall have no liability to the Company or any of its subsidiaries, any Secured Party or any other person as a result of such determination.

ARTICLE V

Consent of Grantors

SECTION 5.01 Each Grantor hereby consents to the provisions of this Agreement and the intercreditor arrangements provided for herein and agrees that the obligations of the Grantors under the ABL Documents and the Noteholder Documents will in no way be diminished or otherwise affected by such provisions or arrangements (except as expressly provided herein).

SECTION 5.02 If a Junior Secured Party pays or distributes cash, property, or other assets to a Senior Secured Party under this Agreement, the Junior Secured Party will be subrogated to the rights of the Senior Secured Party with respect to the applicable Senior Collateral to the extent of the value of such payment or distribution; *provided* that the Junior Secured Party waives such right of subrogation until the discharge of the Senior Secured Obligations. Such payment or distribution will not reduce the Junior Secured Obligations.

ARTICLE VI

Representations and Warranties

SECTION 6.01 ***Representations and Warranties of Each Party***. Each party hereto represents and warrants to the other parties hereto as follows.

(a) Such party is duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization and has all requisite power and authority to enter into and perform its obligations under this Agreement.

(b) This Agreement has been duly executed and delivered by such party.

(c) The execution, delivery and performance by such party of this Agreement (i) do not require any consent or approval of, registration or filing with or any other action by any governmental authority of which the failure to obtain the same could reasonably be expected to have a Material Adverse Effect, (i) will not violate any applicable law or regulation or any order of any governmental authority or any indenture, agreement or other instrument binding upon such party which could reasonably be expected to have a Material Adverse Effect and (iii) will not violate the charter, by-laws or other organizational documents of such party. As used in this clause (c), "Material Adverse Effect" means, with respect to a party, a material adverse effect on (a) the business, operations, affairs, financial condition, assets or properties of such party and its subsidiaries taken as a whole, or (b) the ability of such party to perform its obligations hereunder, or (c) the validity or enforceability of this Agreement as to such party.

SECTION 6.02 **Representations and Warranties of Each Representative.** Each of the Trustee, the Noteholder Collateral Agent and the ABL Collateral Agent represents and warrants to the other parties hereto that it is authorized under the Indenture and any applicable ABL Agreement, respectively, to enter into this Agreement.

ARTICLE VII

Miscellaneous

SECTION 7.01 **Notices.** All notices and other communications provided for herein shall be in writing and shall be delivered by hand or overnight courier service, mailed by certified or registered mail or sent by facsimile, as follows.

(c) if to the Trustee, to it at:

U.S. Bank National Association
Corporate Trust Services
One Federal Street, 3rd Floor
Boston, Massachusetts 02110
Attention: []]
Facsimile: []]

(d) if to the Noteholder Collateral Agent, to it at:

U.S. Bank National Association
Corporate Trust Services
One Federal Street, 3rd Floor
Boston, Massachusetts 02110
Attention: []]
Facsimile: []]

(e) if to the ABL Collateral Agent, to it at:

[]

(f) if to the Company, to it at:

Merrimack Pharmaceuticals, Inc.
One Kendall Square, Suite B7201
Cambridge, Massachusetts 02139
Attention: []
Facsimile: []

(g) if to any other Grantor, to it in care of the Company as provided in clause (d) above.

Any party hereto may change its address or facsimile number for notices and other communications hereunder by notice to the other parties hereto (and for this purpose a notice to the Company shall be deemed to be a notice to each Grantor). All notices and other communications given to any party hereto in accordance with the provisions of this Agreement shall be deemed to have been given on the date of receipt (if a Business Day) and on the next Business Day thereafter (in all other cases) if delivered by hand or overnight courier service or sent by facsimile or on the date five Business Days after dispatch by certified or registered mail if mailed, in each case delivered, sent or mailed (properly addressed) to such party as provided in this Section 7.01 or in accordance with the latest unrevoked direction from such party given in accordance with this Section 7.01. As agreed to in writing among the Company and any ABL Collateral Agent from time to time, notices and other communications may also be delivered by e-mail to the e-mail address of a representative of the applicable person provided from time to time by such person.

SECTION 7.02 Waivers; Amendment. (a) No failure or delay on the part of any party hereto in exercising any right or power hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any such right or power, or any abandonment or discontinuance of steps to enforce such a right or power, preclude any other or further exercise thereof or the exercise of any other right or power. The rights and remedies of the parties hereto are cumulative and are not exclusive of any rights or remedies that they would otherwise have. No waiver of any provision of this Agreement or consent to any departure by any party therefrom shall in any event be effective unless the same shall be permitted by paragraph (b) of this Section, and then such waiver or consent shall be effective only in the specific instance and for the purpose for which given. No notice or demand on any party hereto in any case shall entitle such party to any other or further notice or demand in similar or other circumstances.

(b) Neither this Agreement nor any provision hereof may be terminated, waived, amended or modified except pursuant to an agreement or agreements in writing entered into by each Representative and the Company *provided, however*, that this Agreement may be amended from time to time (x) as provided in Section 2.10 and (y) at the sole request and

expense of the Company, and without the consent of any Representative or any other party hereto, (A) to establish that the Liens on any ABL First Lien Collateral securing such ABL Obligations shall be senior to the Liens on such ABL First Lien Collateral securing any Noteholder Obligations, all on the terms provided for herein immediately prior to such amendment, (B) to establish that the Liens on any Noteholder First Lien Collateral securing such ABL Obligations shall be junior and subordinated to the Liens on such Noteholder First Lien Collateral securing any Noteholder Obligations, all on the terms provided for herein immediately prior to such amendment, and (C) to add additional Grantors. Any amendment of this Agreement that is proposed to be effected without the consent of a Representative as permitted by the proviso to the second preceding sentence shall be submitted to such Representative for its review at least five (5) Business Days prior to the proposed effectiveness of such amendment.

SECTION 7.03 *Parties in Interest.* This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns, as well as the Noteholder Secured Parties and the ABL Secured Parties, all of whom are intended to be bound by, and to be third party beneficiaries of, this Agreement; *provided* that at any time and from time to time, if any Representative assigns any part of its rights or obligations under any ABL Documents or Noteholder Documents (as applicable) such that there exists more than one ABL Collateral Agent or Noteholder Collateral Agent, as applicable, (i) such Representative shall cause each such additional ABL Collateral Agent or Noteholder Collateral Agent, as applicable, to become a party hereto and (ii) the parties hereto shall execute and deliver mutually acceptable supplements or amendments hereto to set forth the rights and responsibilities of each ABL Collateral Agent or Noteholder Collateral Agent, as applicable, and designate a single primary ABL Collateral Agent or Noteholder Collateral Agent, as applicable, with respect to the ABL Obligations and Noteholder Obligations, respectively, *provided* that such supplements or amendments maintain the respective priorities, rights and remedies with respect to the Noteholder Obligations and ABL Obligations as provided herein.

SECTION 7.04 *Survival of Agreement.* All covenants, agreements, representations and warranties made by any party in this Agreement shall be considered to have been relied upon by the other parties hereto and shall survive the execution and delivery of this Agreement.

SECTION 7.05 *Counterparts.* This Agreement may be executed in counterparts, each of which shall constitute an original but all of which when taken together shall constitute a single contract. Delivery of an executed signature page to this Agreement by facsimile transmission or by email shall be as effective as delivery of a manually signed counterpart of this Agreement.

SECTION 7.06 *Severability.* Any provision of this Agreement held to be invalid, illegal or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such invalidity, illegality or unenforceability without affecting the validity, legality and enforceability of the remaining provisions hereof, and the invalidity of a particular provision in a particular jurisdiction shall not invalidate such provision in any other jurisdiction. The parties shall endeavor in good-faith negotiations to replace the invalid, illegal or unenforceable provisions with valid provisions the economic effect of which comes as close as possible to that of the invalid, illegal or unenforceable provisions.

SECTION 7.07 *Governing Law; Jurisdiction; Consent to Service of Process.* This Agreement shall be governed by and construed in accordance with the laws of the State of New York, without regard to principles of conflicts of law (other than Sections 5-1401 and 5-1402 of the New York General Obligations Law). EACH PARTY HERETO HEREBY SUBMITS TO THE NON-EXCLUSIVE JURISDICTION OF THE FEDERAL AND STATE COURTS OF COMPETENT JURISDICTION IN THE BOROUGH OF MANHATTAN IN THE CITY OF NEW YORK IN ANY SUIT OR PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY. EACH PARTY TO THIS AGREEMENT IRREVOCABLY CONSENTS TO SERVICE OF PROCESS IN THE MANNER PROVIDED FOR NOTICES IN SECTION 7.01. Nothing in this Agreement will affect the right of any party to this Agreement to serve process in any other manner permitted by law.

SECTION 7.08 **WAIVER OF JURY TRIAL.** EACH PARTY HERETO HEREBY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN ANY LEGAL PROCEEDING DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THIS AGREEMENT. EACH PARTY HERETO (A) CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF ANY OTHER PARTY HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PARTY WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND (B) ACKNOWLEDGES THAT IT AND THE OTHER PARTIES HERETO HAVE BEEN INDUCED TO ENTER INTO THIS AGREEMENT BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION.

SECTION 7.09 **Waiver of Immunity.** To the extent that any Grantor may in any jurisdiction claim for itself or its assets immunity (to the extent such immunity may now or hereafter exist, whether on the grounds of sovereign immunity or otherwise) from suit, execution, attachment (whether in aid of execution, before judgment or otherwise) or other legal process (whether through service of notice or otherwise), and to the extent that in any such jurisdiction there may be attributed to itself or its assets such immunity (whether or not claimed), such Grantor irrevocably agrees with respect to any matter arising under this Agreement for the benefit of the Secured Parties not to claim, and irrevocably waives, such immunity to the full extent permitted by the Laws of such jurisdiction.

SECTION 7.10 **Headings.** Article, Section and Annex headings used herein are for convenience of reference only, are not part of this Agreement and are not to affect the construction of, or to be taken into consideration in interpreting, this Agreement.

SECTION 7.11 **Conflicts.** In the event of any conflict or inconsistency between the provisions of this Agreement and the provisions of any of the other ABL Documents and/or Noteholder Documents, the provisions of this Agreement shall control.

SECTION 7.12 **Provisions Solely to Define Relative Rights.** The provisions of this Agreement are and are intended solely for the purpose of defining the relative rights of the applicable ABL Secured Parties, on the one hand, and the Noteholder Secured Parties, on the other hand. None of the Company, any other Grantor or any other creditor thereof shall have any

rights or obligations hereunder, except as expressly provided in this Agreement. Nothing in this Agreement is intended to or shall impair the obligations of the Company or any other Grantor, which are absolute and unconditional, to pay the Obligations as and when the same shall become due and payable in accordance with their terms.

SECTION 7.13 *English Language.* This Agreement and each Noteholder Document has been negotiated and executed in English. All certificates, reports, notices and other documents and communications given or delivered by any party hereto pursuant to this Agreement or any other Noteholder Document shall be in English or, if not in English, accompanied by a certified English translation thereof. The English version of any such document shall control the meaning of the matters set forth herein.

SECTION 7.14 *Concerning the Noteholder Collateral Agent.* The Noteholder Collateral Agent is entering into this Agreement solely in its capacity as Noteholder Collateral Agent under the Indenture, and not in its individual or corporate capacity. In acting hereunder, the Noteholder Collateral Agent shall be entitled to all of the rights, privileges and immunities of the Noteholder Collateral Agent set forth in the Indenture and the Noteholder Documents.

[Remainder of this page intentionally left blank]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed by their respective authorized officers as of the day and year first above written.

U.S. BANK NATIONAL ASSOCIATION,
as Trustee

By: _____
Name:
Title

U.S. BANK NATIONAL ASSOCIATION,
as Noteholder Collateral Agent

By: _____
Name:
Title

I _____,
as ABL Collateral Agent

By: _____
Name:
Title

Signature page to Lien Subordination and Intercreditor Agreement
C-25

MERRIMACK PHARMACEUTICALS, INC.

By: _____
Name:
Title:

[SUBSIDIARY]

By: _____
Name:
Title:

Signature page to Lien Subordination and Intercreditor Agreement

Provision for each ABL Agreement and the Indenture

Reference is made to the Lien Subordination and Intercreditor Agreement dated as of [], among U.S. Bank National Association, as Trustee, U.S. Bank National Association, as Noteholder Collateral Agent, the ABL Collateral Agent(s) for the applicable ABL Secured Parties referred to therein, Merrimack Pharmaceuticals, Inc., a Delaware corporation (“Merrimack”), and the subsidiaries of Merrimack party thereto (the “Intercreditor Agreement”; capitalized terms used in this paragraph and not defined shall have the meaning assigned to them in the Intercreditor Agreement). Each [lender/creditor/noteholder hereunder] [Noteholder, by its acceptance of a Note,] [(a) consents to the subordination of Liens provided for in the Intercreditor Agreement, (b)]⁴ / [(a)] agrees that it will be bound by and will take no actions contrary to the provisions of the Intercreditor Agreement and [(c)] / [(b)] authorizes and instructs the [ABL Collateral Agent] [Trustee] to enter into the Intercreditor Agreement as [ABL Collateral Agent] [Trustee] and on behalf of such [Lender/Creditor] [Noteholder]. The foregoing provisions are intended as an inducement to the [lenders/creditors/noteholders under the ABL Agreement] [Noteholders] to [extend credit] [to acquire the Notes of the Company] and such [lenders/creditors/noteholders] [Noteholders] are intended third party beneficiaries of such provisions and the provisions of the Intercreditor Agreement. In the event of any conflict or inconsistency between the provisions of this Agreement and the Intercreditor Agreement, the provisions of the Intercreditor Agreement shall control.

Provision for ABL Security Documents and Noteholder Security Documents

Reference is made to the Lien Subordination and Intercreditor Agreement dated as of [], among U.S. Bank National Association, as Trustee, U.S. Bank National Association, as Noteholder Collateral Agent, the ABL Collateral Agent(s) for the applicable ABL Secured Parties referred to therein, Merrimack Pharmaceuticals, Inc., a Delaware corporation (“Merrimack”), and the subsidiaries of Merrimack party thereto (the “Intercreditor Agreement”; capitalized terms used in this paragraph and not defined shall have the meaning assigned to them in the Intercreditor Agreement). Notwithstanding any other provision contained herein, this Agreement, the [Liens][*insert appropriate defined term under such security document*] created hereby and the rights, remedies, duties and obligations provided for herein are subject in all respects to the provisions of the Intercreditor Agreement and, to the extent provided therein, the applicable Senior Security Documents. In the event of any conflict or inconsistency between the provisions of this Agreement and the Intercreditor Agreement, the provisions of the Intercreditor Agreement shall control.

⁴ To be inserted for any Noteholder Document.

Additional Legend

Notwithstanding anything to the contrary herein, in any [Noteholder Document] *[insert appropriate description of such document]* or any [ABL Document] *[insert appropriate description of such document]*, the Grantors shall not be required to act or refrain from acting (a) pursuant to any [Noteholder Document] solely with respect to any [ABL First Lien Collateral] *[insert appropriate defined term under such security document]* in any manner that would cause a default under any [ABL Document], or (b) pursuant to any [ABL Document] solely with respect to any [Noteholder First Lien Collateral] *[insert appropriate defined term under such security document]* in any manner that would cause a default under any [Noteholder Document]. For avoidance of doubt, the terms [Noteholder Document] and [ABL Document] do not include the Intercreditor Agreement.

{FORM OF CONFIDENTIALITY AGREEMENT}

Merrimack Pharmaceuticals, Inc.
One Kendall Square, Suite B7201
Cambridge, MA 02139

CONFIDENTIALITY AGREEMENT

In connection with our possible interest in the purchase of senior secured notes (the "Notes") of Merrimack Pharmaceuticals, Inc. (the "Company") (the "Transaction") you or your directors, officers, employees, affiliates, representatives (including, without limitation, financial advisors, attorneys and accountants), partners, investors, agents or similar persons or entities (collectively, "your Representatives") may furnish to us or our directors, officers, managers, members, partners, employees, affiliates, assigns, representatives (including, without limitation, financial advisors, attorneys and accountants), investors, agents or similar persons or entities (collectively, "our Representatives") certain information relating to the Company and its affiliates and the Transaction, including, without limitation, information relating to the Company's products, product candidates, preclinical and clinical programs, research and development activities, product development, marketing and business plans, agreements and documents, clinical and technological data, financial statements, sales projections and any other confidential or proprietary information as you may disclose. All such information, provided in whatever form (written, visual or oral), and including any materials prepared by us or our Representatives containing, based upon or derived from any such information (including, without limitation, any financial models or other analyses, compilations, forecasts, studies or other such documents) is hereinafter referred to as the "Information". The term Information will not, however, include information that (i) is properly in our possession at the time of disclosure without any obligation of confidentiality, (ii) is presently or becomes publicly available or a matter of public knowledge generally, through no act or omission by us, (iii) is lawfully received by us from a third party who has the right to disclose it without violating any confidentiality obligations or (iv) is independently developed by us without reference to or reliance upon the Information (and such independent development can be properly demonstrated by us by competent documentary evidence).

As a condition to receiving the Information, we hereby agree as follows:

1. We hereby agree, and agree to cause our Representatives, (i) to receive and hold all Information confidential with at least the same degree of care as we maintain the confidentiality of our own confidential information, which in no event shall be less than a reasonable standard of care, (ii) to use the Information solely for the purpose of evaluating, entering into, monitoring or enforcing the Transaction and not for any other purpose, and (iii) not to, without your prior written consent, disclose any Information in any manner whatsoever to any third party other than to our Representatives as permitted in paragraph 2 of this Confidentiality Agreement.

2. We shall limit disclosure of the Information received hereunder to only those Representatives who (i) require knowledge or access to the Information to evaluate the Transaction, (ii) are, prior to any disclosure, bound by an agreement or other obligations with terms of confidentiality at least as restrictive as those set forth in this Confidentiality Agreement and (iii) are informed that such information is strictly confidential. We shall assume full responsibility and liability for any breach of the terms of this Confidentiality Agreement by any of our Representatives who have had access to any of the Information provided hereunder.

3. We hereby agree, and agree to cause our Representatives, whether or not the Transaction is consummated, not to (except as required by applicable law, rule, regulation or legal process or pursuant to requests of governmental authorities or regulatory agencies having oversight over us or our Representatives, and only after compliance with paragraph 4 below), without your prior written consent, disclose to any person or entity the fact that the Information or the Transaction exists or has been made available, that we are considering the Transaction, that (if prior to consummation of the Transaction) you are considering the Transaction, or that discussions or negotiations are taking or have taken place concerning the Transaction or any term, condition or other fact relating to the Transaction or such discussions or negotiations, including, without limitation, the status thereof.

4. In the event that we or any of our Representatives are required by applicable law, rule, regulation or legal process or pursuant to requests of governmental authorities or regulatory agencies having oversight over us or our Representatives to disclose any of the Information, we agree to notify you as promptly as possible in writing (unless such notice is not permitted by applicable law, rule or regulation) so that you may seek, at your own expense, a protective order or other appropriate remedy or, in your sole discretion, waive compliance with the terms of this Confidentiality Agreement. We agree to reasonably cooperate with the Company's attempts to obtain a suitable protective order. In the event that no such protective order or other remedy is obtained, or that you do not waive compliance with the terms of this Confidentiality Agreement, we agree to furnish only that portion of the Information that we are advised by counsel (which may be internal counsel) is legally required and will exercise all commercially reasonable efforts to obtain reliable assurance that confidential treatment will be accorded the Information.

5. If we determine not to proceed with the Transaction or we cease to have an interest arising from the Transaction, we will promptly inform you of that decision or event. In such case, or at any time upon your request or the request of any of your Representatives, we and our Representatives agree to (i) promptly deliver to you all copies of the Information in our possession, (ii) promptly destroy all copies of any written Information (whether in tangible or electronic form, or otherwise) that we and our Representatives have created, including, without limitation, any notes we have taken on any discussions with you or your Representatives and (iii) certify (by an authorized officer supervising such return or destruction) that clauses (i) and (ii) above have been complied with. Notwithstanding the above, if required to comply with internal record retention policies or regulatory considerations, we may retain one copy of the Information within our confidential legal files, provided that the confidentiality provisions of this Confidentiality Agreement will continue to apply to such Information for so long as it is retained by us or our Representatives. Notwithstanding the return or destruction of the Information, we and our Representatives will continue to be bound by the obligations of this Confidentiality Agreement, regardless of paragraph 14 below.

6. We acknowledge that neither you nor any of your Representatives, nor any of your or their respective officers, directors, managers, members, partners, employees, agents or controlling persons within the meaning of Section 20 of the U.S. Securities Exchange Act of 1934, as amended, makes any express or implied representation or warranty as to the accuracy or completeness of the Information, and we agree that no such person or entity will have any liability relating to the Information or for any errors therein or omissions therefrom. We further agree that we are not entitled to rely on the accuracy or completeness of the Information. All Information is provided “as is” and without warranty of any kind, express or implied.

7. We acknowledge that we are aware of the restrictions imposed by the United States securities laws on the purchase or sale of securities of an issuer or an affiliate or controlling person of the issuer while in possession of material, non-public information and on the communication of such information to any other person or entity. We represent that we maintain effective internal procedures with respect to maintaining the confidentiality and use of the Information and that we will not use the Information for any purpose in violation of United States securities laws or any other applicable laws. Without limitation of the foregoing, we will not use any of the Information to trade, directly or indirectly, any securities of the Company (including entering into hedge transactions involving such securities) or to give any type of advice, for our firm as principal, or, if applicable, for any of our firm’s clients. We further represent that we are (i) a qualified institutional buyer (as defined in Rule 144A under the U.S. Securities Act of 1933, as amended (the “Securities Act”)) or (ii) a non-U.S. person within the meaning of Regulation S under the Securities Act.

8. You may furnish Information to us as you deem, in your sole discretion, necessary or helpful for the evaluation of the Transaction. However, you shall be under no obligation to disclose any Information or provide materials constituting Information. Both of us agree that the other has no obligation to enter into any definitive agreement related to the Transaction or for any other purpose. In addition, we agree that, at any time prior to your consummation of the Transaction, you have the right, in your sole discretion, to change the terms of the Transaction without prior notice to us or any other person or entity, to reject any and all proposals or offers made by us or any of our Representatives with regard to the Transaction, or to terminate discussions and negotiations with us at any time and for any reason, and that none of the foregoing shall give rise to any liability to us with respect to the Transaction, whether by virtue of this Confidentiality Agreement, any other written or oral expression with respect to the Transaction or otherwise.

9. We acknowledge that remedies at law may be inadequate to protect you against any actual or threatened breach of this Confidentiality Agreement by us or our Representatives, and, without prejudice to any other rights and remedies otherwise available to you, we agree to permit you to seek the granting of injunctive relief in your favor without proof of actual damages and without being required to post any bond.

10. We acknowledge and agree that neither this Confidentiality Agreement nor any disclosure of Information made hereunder by you shall be construed, deemed or interpreted, by implication or otherwise, to vest in us or our Representatives any license or other ownership rights in, to or under any of such Information or other copyrights, intellectual property, know-how, moral rights, trade secrets, trademark rights or other proprietary rights whatsoever.

11. Each provision of this Confidentiality Agreement shall be treated as a separate and independent clause, and the enforceability of any one clause shall in no way impair the enforceability of any other clauses herein. We agree that no failure or delay by you in exercising any right, power or privilege hereunder will operate as a waiver thereof, nor will any single or partial exercise thereof preclude any other or further exercise thereof or the exercise of any right, power or privilege hereunder. This Confidentiality Agreement shall not be assigned by either party without the prior written consent of the other party. Subject to the foregoing, this Confidentiality Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns.

12. This Confidentiality Agreement shall be governed by, and construed, interpreted and enforced in accordance with, the laws of the State of New York, without giving effect to the principles of conflicts of law thereof (other than the provisions of Section 5-1401 of the General Obligations Law of the State of New York).

13. This Confidentiality Agreement contains the entire agreement between you and us, and supersedes all prior agreements and understandings, whether written or oral, between you and us concerning the confidentiality of the Information, and no modification of this Confidentiality Agreement or waiver of the terms and conditions hereof will be binding upon you or us, unless approved in writing by each of you and us.

14. This Confidentiality Agreement will terminate (i) if we do not proceed with the Transaction, two (2) years after the date hereof, and (ii) if we do proceed with the Transaction, two (2) years from the date we cease to have an interest arising from the Transaction, whether through a sale of our interest, the maturity or repayment of our interest or otherwise.

15. If we propose to purchase, transfer, sell or otherwise dispose of any of our interest at any time, we agree to (i) abide by any transfer restrictions relating to the Notes, (ii) inform any proposed transferee of such interest of any such transfer restrictions, including, without limitation, any requirement that such proposed transferee execute a confidentiality agreement, and (iii) not furnish any Information to such proposed transferee. We acknowledge that you shall be responsible for the delivery of all Information to any such prospective transferee following execution by such prospective transferee of an appropriate confidentiality agreement.

16. This Confidentiality Agreement may be executed in counterparts, each of which shall be deemed to be an original and both of which taken together shall constitute one agreement binding on both parties. An executed electronic scanned copy of this Confidentiality Agreement shall have the same force and effect as an original.

Very truly yours,

{Please insert prospective purchaser's name on line above}

By: _____
Name: _____
Title: _____
Address: _____
Date: _____

Accepted and agreed as of the date written below:

MERRIMACK PHARMACEUTICALS, INC.

By: _____
Name: _____
Title: _____
Date: _____

PAYMENT SUBORDINATION TERMS

SECTION 1.01. Subordination of Liabilities. { }¹ (the “Debtor”), for itself, and its successors and assigns, covenants and agrees, and { }² (the “Creditor”) covenants and agrees, that the payment of the principal of, interest on, and all other amounts owing in respect of, the { }³ (the “Subordinated Indebtedness”) is hereby expressly subordinated, to the extent and in the manner hereinafter set forth, to the prior payment in full in cash of Senior Indebtedness (as defined in Section 1.07 of this Exhibit).

SECTION 1.02. Debtor Not to Make Payments with Respect to Subordinated Indebtedness in Certain Circumstances.

(a) Upon the maturity of any applicable Senior Indebtedness (including interest thereon, premium, if any, or fees or any other amounts owing in respect thereof), whether at stated maturity, by acceleration or otherwise, all Obligations (as defined in Section 1.07 of this Exhibit) owing in respect thereof shall first be paid in full in cash, before any payment (whether in cash, property, securities or otherwise) is made on account of the Subordinated Indebtedness.

(b) The Debtor may not, directly or indirectly, make any payment of any Subordinated Indebtedness or acquire any Subordinated Indebtedness for cash or property until all applicable Senior Indebtedness has been paid in full in cash if any Event of Default under such Senior Indebtedness is then in existence or would result therefrom. Each Creditor hereby agrees that, so long as any such Event of Default exists, it will not ask, demand, sue for, or otherwise take, accept or receive, any amounts owing in respect of the Subordinated Indebtedness.

(c) In the event that, notwithstanding the provisions of the preceding subsections (a) and (b) of this Section 1.02, the Debtor shall make a payment on account of (or any Creditor receives any payment on account of) the Subordinated Indebtedness at a time when payment is not permitted by said subsection (a) or (b), such payment shall be held by such Creditor, in trust for the benefit of, and shall be paid forthwith over and delivered, to the applicable {Agent(s)}⁴ for application pro rata to the payment of all such applicable Senior Indebtedness (after giving effect to the relative priorities of such Senior Indebtedness) remaining unpaid to the extent necessary to pay all such Senior Indebtedness in full in cash in accordance with the terms of such Senior Indebtedness, after giving effect to any concurrent payment or distribution to or for the holders of such Senior Indebtedness.

¹ Reference issuer, guarantor, borrower, payor, maker or other obligor/debtor, as applicable.

² Reference note holder, lender, payee or other obligee/creditor, as applicable.

³ Reference the subordinated indebtedness

⁴ Reference administrative agent, trustee, paying agent or other agent/representative of the Senior Indebtedness, as applicable

SECTION 1.03. Subordination to Prior Payment of Senior Indebtedness, Dissolution, Liquidation or Reorganization of Debtor. Upon any distribution of assets of the Debtor upon dissolution, winding up, liquidation or reorganization of the Debtor in bankruptcy, insolvency or receivership proceedings or upon an assignment for the benefit of creditors:

(a) the holders of all Senior Indebtedness shall first be entitled to receive payment in full in cash of all Senior Indebtedness (including, without limitation, post-petition interest at the rate provided in the documentation with respect to the Senior Indebtedness whether or not such post-petition interest is an allowed claim against the debtor in any bankruptcy or similar proceeding) before any Creditor is entitled to receive any payment of any kind or character on account of the Subordinated Indebtedness; and

(b) in the event that, notwithstanding the foregoing provisions of this Section 1.03, any payment or distribution of assets of the Debtor of any kind or character, whether they be cash, property or securities, shall be received by the Creditor on account of Subordinated Indebtedness before all Senior Indebtedness is paid in full in cash, such payment or distribution shall be received and held in trust for and shall forthwith be paid over to the holders of the applicable Senior Indebtedness (after giving effect to the relative priorities of such Senior Indebtedness) remaining unpaid or unprovided for or their representative(s) or to the applicable {Agent(s)}, for application to the payment of such Senior Indebtedness until all such Senior Indebtedness shall have been paid in full in cash, after giving effect to any concurrent payment or distribution to the holders of such Senior Indebtedness.

The provisions of this Section 1.03 shall not apply to payments of or distributions of (i) debt securities of the Debtor that are subordinated to (x) Senior Indebtedness or (y) debt securities issued in a plan of reorganization in exchange for Senior Indebtedness, in each case, to substantially the same extent as, or to a greater extent than, the Subordinated Indebtedness is subordinated to the Senior Indebtedness pursuant to this agreement, or (ii) Equity Interests in the Debtor.

SECTION 1.04. Subrogation. Subject to the prior payment in full in cash of all applicable Senior Indebtedness, each Creditor shall be subrogated to the rights of the holders of such Senior Indebtedness to receive payments or distributions of assets of the Debtor applicable to such Senior Indebtedness until all amounts owing on the Subordinated Indebtedness shall be paid in full, and for the purpose of such subrogation no payments or distributions to the holders of such Senior Indebtedness by or on behalf of the Debtor or by or on behalf of any Creditor by virtue of this Exhibit that otherwise would have been made to a Creditor shall, as between the Debtor, its creditors other than the holders of such Senior Indebtedness, and the Creditor, be deemed to be payment by such Debtor to or on account of such Senior Indebtedness, it being understood that the provisions of this Exhibit are and are intended solely for the purpose of defining the relative rights of the Creditor, on the one hand, and the holders of such Senior Indebtedness, on the other hand.

SECTION 1.05. Obligation of the Debtor Unconditional. Nothing contained in this Exhibit is intended to or shall impair, as between the Debtor and the Creditor, the obligation of the Debtor, which is absolute and unconditional, to pay to the Creditor the principal of and interest on the Subordinated Indebtedness as and when the same shall become due and payable in accordance with its terms, or is intended to or shall affect the relative rights of the Creditor and other creditors of the Debtor other than the holders of the Senior Indebtedness, nor, except as specifically provided herein, shall anything herein or therein prevent the Creditor from exercising all remedies otherwise permitted by applicable law upon an event of default under the Subordinated Indebtedness, subject to the rights, if any, under this Exhibit of the holders of Senior Indebtedness in respect of cash, property, or securities of the Debtor received upon the exercise of any such remedy. Upon any distribution of assets of the Debtor, each Creditor shall be entitled to rely upon any order or decree made by any court of competent jurisdiction in which such dissolution, winding up, liquidation or reorganization proceedings are pending, or a certificate of the liquidating trustee or agent or other person making any distribution to the Creditor, for the purpose of ascertaining the persons entitled to participate in such distribution, the holders of the Senior Indebtedness and other indebtedness of the Debtor, the amount thereof or payable thereon, the amount or amounts paid or distributed thereon and all other facts pertinent thereto or to this Exhibit.

SECTION 1.06. Subordination Rights Not Impaired by Acts or Omissions of the Debtor or Creditor of Senior Indebtedness. No right of any present or future holders of any Senior Indebtedness to enforce subordination as herein provided shall at any time in any way be prejudiced or impaired by any act or failure to act on the part of the Debtor or by any act or failure to act in good faith by any such holder, or by any noncompliance by the Debtor with the terms and provisions of the Subordinated Indebtedness, regardless of any knowledge thereof that any such holder may have or be otherwise charged with.

SECTION 1.07. Senior Indebtedness. The term "Senior Indebtedness" shall mean (i) the Obligations of the Debtor under the Indenture for the 11.5% Senior Secured Notes due 2022 by and among Merrimack Pharmaceuticals, Inc., a Delaware corporation, as issuer, and U.S. Bank National Association, as indenture trustee (the "Trustee"), and any amendment, renewal, extension, restatement, refinancing or refunding (in whole or in part) thereof and (ii) {reference First Priority Lien Obligations and/or senior unsecured Indebtedness, as applicable, to which the Subordinated Indebtedness is intended to be subordinated in right of payment}. As used herein, the term "Obligation" shall mean all principal, interest, premium, reimbursement obligations, penalties, fees, expenses, indemnities and other liabilities and obligations (including any guaranties of the foregoing liabilities and obligations) payable under the documentation governing any Senior Indebtedness (including interest after the commencement of any bankruptcy, insolvency, receivership or similar proceeding at the rate provided in the documentation with respect thereto, whether or not such interest is an allowed claim against the debtor in any such proceeding).

SECTION 1.08. Miscellaneous. If, at any time, all or part of any payment with respect to Senior Indebtedness theretofore made by the Debtor or any other person is rescinded or must otherwise be returned by the holders of Senior Indebtedness for any reason whatsoever (including, without limitation, the insolvency, bankruptcy or reorganization of the Debtor or such other persons), the subordination provisions set forth herein shall continue to be effective and be reinstated, as the case may be, all as though such payment had not been made.

FORM OF PORTFOLIO INTEREST CERTIFICATE

_____ hereby certifies that:

- 1. It is (*one must be checked*):
 - (1) _____ a natural individual person;
 - (2) _____ treated as a corporation for U.S. federal income tax purposes;
 - (3) _____ disregarded for U.S. federal income tax purposes (in which case a copy of this certificate is completed and signed by its sole beneficial owner); or
 - (4) _____ treated as a partnership for U.S. federal income tax purposes (in which case each partner also has completed as to itself and signed a copy of this certificate and an appropriate IRS Form W-8, a copy of each of which is attached, or, if applicable, has completed as to itself and signed an IRS Form W-9, a copy of which is attached).
- 2. It is not a bank, as such term is used in Section 881(c)(3)(A) of the Internal Revenue Code of 1986, as amended (the "Code").
- 3. It is not a 10-percent shareholder of Merrimack Pharmaceuticals, Inc. (the "Issuer") within the meaning of Section 871(h)(3) of the Code or Section 881(c)(3)(B) of the Code.
- 4. It is not a controlled foreign corporation that is related to the Issuer within the meaning of Section 881(c)(3)(C) of the Code.

{Fill in name of holder}

By: _____
Name:
Title:
Date:

COLLATERAL AGREEMENT

DATED AS OF DECEMBER 22, 2015

AMONG

MERRIMACK PHARMACEUTICALS, INC.,
as Issuer,

THE SUBSIDIARY PARTIES FROM TIME TO TIME PARTY HERETO

U.S. BANK NATIONAL ASSOCIATION,
as Trustee,

and

U.S. BANK NATIONAL ASSOCIATION,
as Collateral Agent

COLLATERAL AGREEMENT

THIS COLLATERAL AGREEMENT (as amended, extended, renewed, restated, supplemented, waived or otherwise modified from time to time, this "Agreement") is entered into as of December 22, 2015, by and among MERRIMACK PHARMACEUTICALS, INC., a Delaware corporation with an address at One Kendall Square, Suite B7201, Cambridge, Massachusetts 02139, (the "Issuer"), the SUBSIDIARY PARTIES (as defined below) from time to time party hereto, U.S. BANK NATIONAL ASSOCIATION, in its capacity as Trustee (and its successors under the Indenture (as defined below), in such capacity, the "Trustee"), and U.S. BANK NATIONAL ASSOCIATION, in its capacity as collateral agent for the Secured Parties (as defined below) (and its successors under the Indenture, in such capacity, the "Collateral Agent").

PRELIMINARY STATEMENT

WHEREAS pursuant to the terms, conditions and provisions of (a) the Indenture dated as of the date hereof (as amended, extended, renewed, restated, supplemented, waived or otherwise modified from time to time, the "Indenture"), between the Issuer and the Trustee, (b) each Purchase Agreement dated December 22, 2015 (collectively, the "Purchase Agreement"), among the Issuer and each purchaser party thereto (collectively, the "Purchasers"), the Issuer is issuing the Securities (as defined below), which may be guaranteed on a senior secured basis by each of the Subsidiary Parties;

WHEREAS the initial aggregate principal amount of the Securities will be \$175,000,000;

WHEREAS, the Indenture permits the Issuer and the Subsidiary Parties to grant a lien and security interest in the ABL First Lien Collateral (as defined below) to one or more ABL Collateral Agents (as defined below) and holders of First Priority Lien Obligations (as defined below);

WHEREAS the Issuer, the Subsidiary Parties, the Collateral Agent, the Co-Collateral Agent (if applicable), the Trustee and the other parties party thereto may enter into one or more Lien Subordination and Intercreditor Agreements from time to time (as such agreements may be amended, extended, renewed, restated, supplemented, waived or otherwise modified from time to time, each, an "Intercreditor Agreement"), which will govern the liens upon and security interests in the Collateral granted by this Agreement and the First Priority Lien Obligations;

WHEREAS the Issuer is executing and delivering this Agreement pursuant to the terms of the Indenture to induce the Trustee to enter into the Indenture and, pursuant to the terms of the Purchase Agreements, to induce the Purchasers to purchase the Securities; and

WHEREAS the Issuer has duly authorized the execution, delivery and performance by it of this Agreement.

NOW, THEREFORE, for and in consideration of the premises, and of the mutual covenants herein contained, and in order to induce the Trustee to enter into the Indenture and the Purchasers to purchase the Securities, the Issuer, each Subsidiary Party that later becomes bound hereby and the Collateral Agent, on behalf of itself and each Secured Party (and each of their respective successors or assigns), hereby agree as follows:

ARTICLE I DEFINITIONS

Section 1.1 Terms Defined in Indenture. All capitalized terms used herein and not otherwise defined shall have the meanings assigned to such terms in the Indenture.

Section 1.2 Terms Defined in UCC. Terms defined in the UCC that are not otherwise defined in this Agreement or the Indenture are used herein as defined in the UCC.

Section 1.3 Definitions of Certain Terms Used Herein. As used in this Agreement, in addition to the terms defined in the preamble and Preliminary Statement above, the following terms shall have the following meanings:

“ABL Collateral Agent” has the meaning assigned to the term “ABL Collateral Agent” in the applicable Intercreditor Agreement.

“ABL First Lien Collateral” has the meaning assigned to such term in the applicable Intercreditor Agreement.

“ABL Liens” has the meaning assigned to such term in the applicable Intercreditor Agreement.

“ABL Secured Parties” has the meaning assigned to such term in the applicable Intercreditor Agreement.

“Account” means, with respect to a Person, any of such Person’s now owned and hereafter acquired or arising “accounts”, as defined in the UCC, including any rights to payment for the sale or lease of goods or rendition of services, whether or not they have been earned by performance, and “Accounts” means, with respect to any such Person, all of the foregoing.

“Account Control Agreement” means each of (i) the Account Control Agreement, dated on or around the date hereof, among the Issuer, the Collateral Agent and Cambridge Savings Bank and (ii) any other account control agreement which is in form and substance reasonably satisfactory to the Collateral Agent (it being agreed that any agreement that shall require the Collateral Agent to indemnify any institution in its individual capacity shall not be reasonably acceptable to the Collateral Agent).

“Account Debtor” means each Person obligated on an Account.

“Affiliate” has the meaning assigned to such term in the Indenture.

“After-Acquired Property” has the meaning assigned to such term in the Indenture.

“Bankruptcy Proceeding” means, with respect to any Person, a general assignment by such Person for the benefit of its creditors, or the institution by or against such Person of any proceeding seeking relief as debtor, or seeking to adjudicate such Person as bankrupt or insolvent, or seeking reorganization, arrangement, adjustment or composition of such Person or its debts, under any law or regulation relating to bankruptcy, insolvency, reorganization or relief of debtors, or seeking appointment of a receiver, trustee, custodian or other similar official for such Person or for any substantial part of its property.

“Capital Stock” has the meaning assigned to such term in the Indenture.

“Cash Equivalents” has the meaning assigned to such term in the Indenture.

“Chattel Paper” means any “chattel paper”, as such term is defined in the UCC, now owned or hereafter acquired by any Person and, in any event, shall include, all Electronic Chattel Paper and Tangible Chattel Paper.

“Co-Collateral Agent” means a financial institution appointed by the Collateral Agent in accordance with Sections 7.6(a) and 7.7 hereto to act as co-collateral agent for the Secured Parties.

“Collateral” has the meaning specified in Article II.

“Collateral Agent” has the meaning assigned to such term in the preamble.

“Collateral Agent’s Liens” means the Liens in the Collateral granted to the Collateral Agent (or any Co-Collateral Agent), for the benefit of the Secured Parties, pursuant to this Agreement and the other Indenture Documents.

“Commercial Tort Claims” means, with respect to a Person, all of such Person’s now owned or hereafter acquired “commercial tort claims”, as defined by the UCC, including those commercial tort claims identified on Exhibit C and in any event, shall include, any claim now owned or hereafter acquired by any Person, arising in tort with respect to which: (a) the claimant is an organization; or (b) the claimant is an individual and the claim (i) arose in the course of the claimant’s business or profession and (ii) does not include damages arising out of personal injury to or the death of an individual.

“Control” has the meaning assigned to such term in Article 8 of the UCC or, if applicable, in Section 9-104, 9-105, 9-106 or 9-107 of Article 9 of the UCC.

“Copyright, Patent, and Trademark Agreements” means each copyright security agreement, patent collateral agreement, and trademark collateral agreement executed (and if necessary, notarized and legalized) and delivered by a Grantor to the Collateral Agent to evidence and perfect the Collateral Agent’s security interest in such Grantor’s present and future copyrights, patents, trademarks, and related licenses and rights for the benefit of the Secured Parties.

“Default” has the meaning assigned to such term in the Indenture.

“Dollars” means United States dollars.

“Effective Date” means the date of this Agreement.

“Electronic Chattel Paper” means any “electronic chattel paper”, as such term is defined in the UCC, now owned or hereafter acquired by any Person.

“Equipment” means, with respect to a Person, all of such Person’s now owned and hereafter acquired machinery, “equipment”, as defined by the UCC, furniture, furnishings, fixtures, and other tangible personal property (except Inventory), including rolling stock with respect to which a certificate of title has been issued, aircraft, dies, tools, jigs, and office equipment, as well as all of such types of property leased by such Person and all of such Person’s rights and interests with respect thereto under such leases (including, options to purchase); together with all present and future additions and accessions thereto, replacements therefor, component and auxiliary parts and supplies used or to be used in connection therewith, and all substitutes for any of the foregoing, and all manuals, drawings, instructions, warranties, and rights with respect thereto, wherever any of the foregoing is located.

“Equity Interests” has the meaning assigned to such term in the Indenture.

“Event of Default” has the meaning assigned to such term in the Indenture.

“Exchange Act” means the United States Securities Exchange Act of 1934, as amended, and regulations promulgated thereunder.

“Excluded Assets” means (i) Excluded Assets (as defined in the Indenture); (ii) any trademark or service mark applications filed in the United States Patent and Trademark Office on the basis of a Grantor’s intent to use such trademark or service mark, unless and until evidence of use of the mark acceptable to the United States Patent and Trademark Office has been filed with the United States Patent and Trademark Office pursuant to Section 1(c) of 1(d) of the Lanham Act (15 U.S.C., et seq.), to the extent that granting a security interest in such application prior to such filing would adversely affect the validity or enforceability of such trademark application; (iii) the Issuer’s Equity Interests in Merrimack Pharmaceuticals UK Limited, unless and until the Fair Market Value of such Subsidiary or such Subsidiary’s assets exceeds \$500,000 and (iv) motor vehicles acquired, owned or leased in the ordinary course of business or otherwise in accordance with prudent business practice.

“Fair Market Value” has the meaning assigned to such term in the Indenture.

“Filing Office” means, with respect to the Issuer, the office specified on Exhibit E and, with respect to any other Grantor, the appropriate office of the state where such Grantor is “located” (as such term is used in Article 9-307 of the UCC)

“Financial Assets” means any “financial asset”, as such term is defined in the UCC, now owned or hereafter acquired by any Person.

“First Priority Lien Obligations” has the meaning assigned to such term in the Indenture.

“Fiscal Year” means the Issuer’s fiscal year for financial accounting purposes. The Fiscal Year of the Issuer ends on December 31 of each year.

“General Intangibles” means, with respect to a Person, all of such Person’s now owned or hereafter acquired “general intangibles”, as defined in the UCC, including payment intangibles, choses in action and causes of action and all other intangible personal property of such Person of every kind and nature (other than Accounts), including, all contract rights, Proprietary Rights, corporate or other business records, inventions, designs, blueprints, plans, specifications, patents, patent applications, trademarks, service marks, trade names, trade secrets, goodwill, copyrights, computer software, customer lists, registrations, licenses, franchises, tax refund claims, any funds which may become due to such Person in connection with the termination of any Plan or other employee benefit plan or any rights thereto and any other amounts payable to such Person from any Plan or other employee benefit plan, rights and claims against carriers and shippers, rights to indemnification, business interruption insurance and proceeds thereof, property, casualty or any similar type of insurance and any proceeds thereof, proceeds of insurance covering the lives of key employees on which such Person is beneficiary, rights to receive dividends, distributions, cash, Instruments and other property in respect of or in exchange for pledged equity interests or Investment Property, and any letter of credit, guarantee, claim, security interest, or other security held by or granted to such Person.

“Governmental Authority” means any nation or government, any state or other political subdivision thereof, any central bank (or similar monetary or regulatory authority) thereof, any entity exercising executive, legislative, judicial, regulatory, or administrative functions of or pertaining to government.

“Grantors” means the Issuer and the Subsidiary Parties, if any.

“Holder” has the meaning assigned to such term in the Indenture.

“Incur” has the meaning assigned to such term in the Indenture.

“Indebtedness” has the meaning assigned to such term in the Indenture.

“Indenture” has the meaning assigned to such term in the Preliminary Statement.

“Indenture Documents” means (a) the Indenture and the Securities, (b) each Intercreditor Agreement, (c) each other Security Document, including this Agreement and (d) any other related documents or instruments executed and delivered pursuant to or in connection with the Indenture or any other Indenture Document, in each case, as such agreements may be amended, extended, renewed, restated, supplemented, waived or otherwise modified from time to time.

“Intercompany Obligations” means, collectively, all indebtedness, obligations and other amounts at any time owing to any Grantor from any of such Grantor’s Subsidiaries or Affiliates and all interest, cash, instruments and other property from time to time received, receivable or otherwise distributed in respect of or in exchange for any or all of such indebtedness, obligations or other amounts.

“Intercreditor Agreement” has the meaning assigned to such term in the Preliminary Statement.

“Inventory” means, with respect to a Person, all of such Person’s now owned and hereafter acquired “inventory”, as defined in the UCC, goods, and merchandise, wherever located, in each case to be furnished under any contract of service or held for sale or lease, all returned goods, raw materials, work-in-process, finished goods (including embedded software), other materials, and supplies of any kind, nature, or description which are used or consumed in such Person’s business or used in connection with the packing, shipping, advertising, selling, or finishing of such goods, merchandise, and other property, and all documents of title or other documents representing them.

“Investment Property” means, with respect to a Person, all of such Person’s right, title, and interest in and to any and all “investment property”, as defined in the UCC, including, all (a) securities, whether certificated or uncertificated, (b) securities entitlements, (c) securities accounts, (d) commodity contracts, (e) commodity accounts and (f) Equity Interests; together with all other units, shares, partnership interests, membership interests, membership rights, equity interests, rights, or other equivalent evidences of ownership (howsoever designated) issued by any Person.

“Investment Property Collateral” means Investment Property other than Excluded Assets of the type described in clause (iii) of the definition thereof in this Agreement and clauses (v), (vi), (vii) and (viii) of the definition of Excluded Assets (as defined in the Indenture).

“Investment Property Issuer” means the issuer of any Investment Property Collateral.

“Lien” has the meaning assigned to such term in the Indenture.

“Majority Holders” means, at any time, the holders of at least a majority of the aggregate principal amount of the Securities then outstanding.

“Material Adverse Effect” has the meaning assigned to such term in the Purchase Agreement.

“Noteholder First Lien Collateral” has the meaning assigned to such term in the applicable Intercreditor Agreement.

“Obligations” means all obligations of every nature of each Grantor under the Indenture Documents from time to time owed to the Trustee, any Holder of Securities, the Collateral Agent and any other Secured Party, whether for principal, interest (including interest which, but for the filing of a petition in any Bankruptcy Proceeding with respect to such Grantor, would have accrued on any Obligation, whether or not a claim is allowed against such Grantor for such interest in such proceeding), premium, fees, expenses, indemnification, performance or otherwise.

“Perfection Certificate” means a certificate substantially in the form of Exhibit G, completed and supplemented with the schedules and attachments contemplated thereby.

“Permitted Liens” has the meaning assigned to such term in the Indenture.

“Person” has the meaning assigned to such term in the Indenture.

“Plan” has the meaning assigned to such term in the Purchase Agreement.

“Proprietary Rights” means, with respect to a Person, all of such Person’s now owned and hereafter arising or acquired new drug applications or abbreviated new drug applications (or equivalent foreign application), including those new drug applications or abbreviated new drug applications (and equivalent foreign applications) that are owned as of the date hereof set forth on Exhibit B, and any licenses, franchises, permits, patents, patent rights, copyrights, works which are the subject matter of copyrights, trademarks, service marks, trade names, trade styles, patent, trademark and service mark applications, and all licenses and rights related to any of the foregoing, including those patents and trademarks set forth on Exhibit B, and all other rights under any of the foregoing, all extensions, renewals, reissues, divisions, continuations, and continuations in part of any of the foregoing, and all rights to sue for past, present, and future infringement of any of the foregoing.

“Related Person” means, with respect to any specified Person, such Person’s Affiliates, and the respective officers, directors, employees, agents, advisors and attorneys-in-fact of such Person and its Affiliates.

“Requirement of Law” means, as to any Person, any law (statutory or common), treaty, rule, or regulation or determination of an arbitrator or of a Governmental Authority, in each case applicable to or binding upon the Person or any of its property or to which the Person or any of its property is subject.

“Secured Bank Indebtedness” has the meaning assigned to such term in the Indenture.

“Secured Parties” means (a) the Collateral Agent (including any Co-Collateral Agents), (b) each Holder of Securities, (c) the Trustee and (d) the successors and permitted assigns of each of the foregoing.

“Securities” has the meaning assigned to such term in the Indenture.

“Security Documents” has the meaning assigned to such term in the Indenture.

“Senior Liens” has the meaning assigned to such term in the applicable Intercreditor Agreement.

“Subsidiary” has the meaning assigned to such term in the Indenture.

“Subsidiary Parties” means each Subsidiary that becomes a party to this Agreement as a Subsidiary Party after the Effective Date.

“Tangible Chattel Paper” means any “tangible chattel paper”, as such term is defined in the UCC, now owned or hereafter acquired by any Person.

“UCC” means the Uniform Commercial Code (or any successor statute), as in effect from time to time, of the State of New York or of any other state the laws of which are required as a result thereof to be applied in connection with the issue or perfection of security interests.

Section 1.4 Construction; Certain Defined Terms. The definitions of terms herein shall apply equally to the singular and plural forms of the terms defined. Whenever the context may require, any pronoun shall include the corresponding masculine, feminine and neuter forms. The words “include”, “includes” and “including” shall be deemed to be followed by the phrase “without limitation”. The word “will” shall be construed to have the same meaning and effect as the word “shall”. Unless the context requires otherwise, (i) any definition of or reference to any agreement, instrument, other document, statute or regulation herein shall be construed as referring to such agreement, instrument, other document, statute or regulation as from time to time amended, supplemented or otherwise modified, (ii) any reference herein to any Person shall be construed to include such Person’s successors and assigns, but shall not be deemed to include the Subsidiaries of such person unless express reference is made to such Subsidiaries, (iii) the words “herein”, “hereof” and “hereunder”, and words of similar import, shall be construed to refer to this Agreement in its entirety and not to any particular provision hereof, (iv) all references herein to Articles, Sections and Exhibits shall be construed to refer to Articles, Sections and Exhibits of this Agreement, (v) the words “asset” and “property” shall be construed to have the same meaning and effect and to refer to any and all tangible and intangible assets and properties, including cash, securities, accounts and contract rights and (vi) the term “or” is not exclusive.

ARTICLE II GRANT OF SECURITY INTEREST

As security for the Obligations, each Grantor hereby grants to the Collateral Agent, for the benefit of the Secured Parties, a continuing security interest in and lien on, such Grantor’s right, title and interest in and to all of the following property and assets of such Grantor, whether now owned or existing or hereafter acquired or arising, regardless of where located:

- (i) all Accounts (including any credit enhancement therefor) and Intercompany Obligations;
- (ii) all Chattel Paper;
- (iii) all Commercial Tort Claims;
- (iv) all contract rights, leases, letters of credit, letter-of-credit rights, instruments, promissory notes, documents, and documents of title;
- (v) all Financial Assets;
- (vi) all Equipment;
- (vii) all General Intangibles;

(viii) all Investment Property;

(ix) all Inventory;

(x) all money, cash, cash equivalents, securities, and other property of any kind of such Grantor;

(xi) all of such Grantor's deposit accounts, securities accounts, commodities accounts, credits, and balances with, and other claims against, any financial institution with which such Grantor maintains deposits;

(xii) all of such Grantor's books, records, and other property related to or referring to any of the foregoing, including books, records, account ledgers, data processing records, computer software and other property, and General Intangibles at any time evidencing or relating to any of the foregoing;

(xiii) all supporting obligations in respect of any Collateral;

(xiv) all other items, kinds and types of personal property, tangible or intangible, of whatever nature, and regardless of whether the creation or perfection or effect of perfection or non-perfection of a security interest therein is governed by the UCC of any particular jurisdiction or by another applicable treaty, convention, statute, law or regulation of any applicable jurisdiction; and

(xv) all accessions to, substitutions for, and replacements, products, and proceeds of any of the foregoing, including, but not limited to, After-Acquired Property, proceeds of any insurance policies, claims against third parties, and condemnation or requisition payments with respect to all or any of the foregoing.

All of the foregoing, and all other property of the Grantors' in which a Secured Party may at any time be granted a Lien to secure the Obligations, is herein collectively referred to as the "Collateral"; provided, however, that notwithstanding the foregoing, the Collateral shall not include, and the security interest shall not attach to, any and all Excluded Assets.

ARTICLE III REPRESENTATIONS AND WARRANTIES

The Grantors, jointly and severally, represent and warrant to the Collateral Agent, for the benefit of the Secured Parties, that:

Section 3.1 Validity and Priority of Security Interest.

(a) This Agreement and the applicable Security Documents are effective to create in favor of the Collateral Agent, for the ratable benefit of the Secured Parties, a legal, valid and enforceable security interest in the Collateral and the proceeds thereof and (i) when the Investment Property Collateral that consists of Equity Interests is delivered to the Collateral Agent (subject to the terms of any Secured Bank Indebtedness and each Intercreditor Agreement (if any)), the Lien created under this Agreement and the applicable Security Documents shall

constitute a fully perfected Lien on, and security interest in, all right, title and interest of the Grantors in such Investment Property Collateral (subject to Permitted Liens), in each case prior and superior in right to any other Person (ii) upon the execution and delivery of the Account Control Agreement by each party thereto, the Account Control Agreement shall be effective to perfect the security interest in the deposit accounts specified therein, and such security interest shall be perfected, and (iii) when financing statements in appropriate form are filed in the Filing Offices, the Lien created under this Agreement and the applicable Security Documents will constitute a fully perfected Lien on, and security interest in, all right, title and interest of the Grantors in such Collateral in which a security interest can be perfected by filing a financing statement (subject to Permitted Liens), in each case prior and superior in right to any other Person (subject only to a prior ranking lien in respect of (i) the ABL Collateral that secures any First Priority Lien Obligations and (ii) the Permitted Liens set forth in clauses (6)(B), (16), (28) and (31) and (as it relates to such clauses) clauses (20) and (32) of the definition thereof).

(b) Upon the recordation of this Agreement or the Copyright, Patent, and Trademark Agreements with the United States Patent and Trademark Office or the United States Copyright Office, as applicable, together with the financing statements in appropriate form filed in the Filing Offices and (as to Proprietary Rights related to MM-398) in the European Patent Office, the Lien created shall constitute a fully perfected Lien on, and security interest in, all right, title and interest of the Grantors in the respective Proprietary Rights in which a security interest may be perfected by filing in the United States and its territories and possessions, or in Europe, respectively, in each case prior and superior in right to any other Person (other than Permitted Liens of the type described in clause (19) of the definition thereof).

Section 3.2 Location of Collateral. As of the Effective Date, (a) Exhibit A is a correct and complete list of each Grantor's jurisdiction of organization, the location of its books and records, the locations of the Collateral (other than Inventory that is in transit, consignments of Inventory not in excess of \$2,500,000, rolling stock, and Collateral in the Collateral Agent's possession or equipment in transit between the locations set forth on Exhibit A and equipment at other locations for purposes of maintenance or repair), and the locations of all of its other places of business; and (b) Exhibit A correctly identifies any of such facilities and locations that are not owned by such Grantor and sets forth the names of the owners and lessors or sublessors of such facilities and locations.

Section 3.3 Exact Names. As of the Effective Date, the name in which each Grantor has executed this Agreement is the exact name as it appears in such Grantor's organizational documents, as amended, as filed with such Grantor's jurisdiction of organization. Except as set forth on Exhibit A or as permitted by the Indenture or this Agreement, since the date of its organization or acquisition as a Subsidiary of the Issuer, no Grantor has, as of the Effective Date, been known by or used any other corporate or fictitious name, or been a party to any merger or consolidation, or acquired all or substantially all of the assets of any Person.

Section 3.4 Accounts and Chattel Paper. The names of the obligors, amounts owing, due dates and other information with respect to each Grantor's Accounts and Chattel Paper that are Collateral are and will be correctly stated, in all material respects, at the time furnished, in all records of such Grantor relating thereto.

Section 3.5 Documents, Instruments, and Chattel Paper. (a) All documents, instruments, and Chattel Paper of each Grantor describing, evidencing, or constituting Collateral, and all signatures and endorsements thereon, are and will be complete, valid, and genuine in all material respects, and (b) all goods evidenced by such documents, instruments, and Chattel Paper are and will be owned by such Grantor free and clear of all Liens (subject to Permitted Liens). If any Grantor retains possession of any Chattel Paper or other instruments, at the Collateral Agent's request upon an Event of Default, such Chattel Paper or instruments shall be marked with the following legend: "This writing and the obligations evidenced or served hereby are subject to the security interest of U.S. Bank National Association, as Collateral Agent, for the benefit of Collateral Agent and certain Secured Parties."

Section 3.6 Proprietary Rights. Exhibit B sets forth a correct and complete list of all of each Grantor's registered or applied for patents, copyrights and trademarks material to its business, in each case owned by such Grantor in its own name as of December 18, 2015.

Section 3.7 Investment Property.

(a) Exhibit D sets forth a correct and complete list of all of the Investment Property Collateral owned by each Grantor as of the Effective Date. As of the Effective Date, each Grantor is the legal and beneficial owner of such Investment Property Collateral, as so reflected, free and clear of any Lien (other than Permitted Liens), and has not sold, granted any option with respect to, assigned or transferred, or otherwise disposed of any of its rights or interest therein. Each Grantor further represents and warrants that (i) to such Grantor's knowledge, all Investment Property constituting an Equity Interest has been (to the extent such concepts are relevant with respect to such Investment Property) duly authorized and validly issued by the Investment Property Issuer thereof and are fully paid and non-assessable, (ii) with respect to any certificates delivered to the Collateral Agent representing an Equity Interest, either such certificates are Securities as defined in Article 8 of the UCC as a result of actions by the Investment Property Issuer thereof or otherwise, or, if such certificates are not Securities as defined in Article 8 of the UCC, such Grantor has filed financing statements in appropriate form to perfect the security interest of the Collateral Agent for the benefit of the Secured Parties therein as a General Intangible, and (iii) to Grantor's knowledge, all Investment Property that represents Indebtedness owed to any Grantor has been duly authorized, authenticated or issued and delivered by the Investment Property Issuer of such Indebtedness and is the legal, valid and binding obligation of such Investment Property Issuer.

(b) Each Grantor further represents and warrants that, as of the Effective Date, to the best of such Grantor's knowledge, none of the Investment Property Collateral is or will be subject to any option, right of first refusal, shareholders agreement, charter or by-law provisions or contractual restriction of any nature that might prohibit, impair, delay or otherwise affect the pledge of such Investment Property Collateral hereunder, the sale or disposition thereof pursuant hereto or the exercise by the Collateral Agent of rights and remedies hereunder.

Section 3.8 Commercial Tort Claims. As of the Effective Date, no Grantor holds any Commercial Tort Claims the recovery from which could reasonably be expected to exceed \$500,000, for which such Grantor has filed a complaint in a court of competent jurisdiction, except as indicated on Exhibit C hereto.

Section 3.9 Bank Accounts and Related Items. As of the Effective Date, Exhibit J contains a complete and accurate list of all bank accounts, including deposit accounts, securities accounts and commodity accounts, other than any Excluded Assets, maintained by each Grantor with any bank or other financial institution, broker, securities intermediary, commodity intermediary or other Person.

Section 3.10 Perfection Certificate. The Perfection Certificates delivered by the Grantors as of the Effective Date have been duly prepared, completed and executed and the information set forth therein is correct and complete, in all material respects, as of the Effective Date.

Section 3.11 Leases. Exhibit I sets forth, as of the Effective Date, a correct and complete list of all leases and subleases of personal property by each Grantor as lessee or sublessee (other than any Excluded Assets, and other than any leases of personal property as to which it is lessee or sublessee for which the value of such personal property is less than \$500,000), and all leases and subleases of personal property by each Grantor as lessor or sublessor.

Section 3.12 Trade Names. All trade names, business names or corporate names under which, as of the Effective Date, any Grantor sells Inventory or creates Accounts, or to which instruments in payment of Accounts are made payable, are listed on Exhibit K.

Section 3.13 No Financing Statements, Security Agreements. No financing statement or security agreement describing all or any portion of the Collateral that has not lapsed or been terminated naming a Grantor as debtor has been filed or is of record in any jurisdiction except (a) for financing statements or security agreements naming the Collateral Agent on behalf of the Secured Parties as the secured party and (b) for financing statements in connection with Permitted Liens.

Section 3.14 Location for Purposes of the UCC. As of the Effective Date, the Issuer is “located” (as such term is used in Article 9-307 of the UCC) in the state of Delaware.

ARTICLE IV COVENANTS

From the date hereof, and thereafter until this Agreement is terminated, each Grantor agrees that:

Section 4.1 General.

(a) Collateral Records. Each Grantor shall maintain at all times reasonably detailed, accurate and updated books and records pertaining to the Collateral and promptly furnish to the Collateral Agent such information relating to the Collateral as the Collateral Agent shall from time to time reasonably request.

(b) Authorization to File Financing Statements; Ratification. The Collateral Agent may, and the Grantors hereby authorize the Collateral Agent to, at any time and from time to time, file financing statements, continuation statements, and amendments thereto that describe

the Collateral as “all assets” or words of similar import and which contain any other information required pursuant to Article 9 of the UCC for the sufficiency of filing office acceptance of any financing statement, continuation statement, or amendment, and each Grantor agrees to furnish any such information to the Collateral Agent promptly upon request. The Collateral Agent shall inform the applicable Grantor of any such filing either prior to, or reasonably promptly after, such filing. Each Grantor acknowledges that it is not authorized to file any financing statement covering the Collateral or amendment or termination statement with respect to any financing statement covering the Collateral without the prior written consent of the Collateral Agent and agrees that it will not do so without such consent, subject to (i) the Grantors’ rights under Section 9-509(d)(2) of Article 9 of the UCC and (ii) financing statements that may be filed, in accordance with the Indenture or each Intercreditor Agreement (if any), to perfect or release any ABL Liens or Permitted Liens.

(c) Other Perfection, etc. Each Grantor shall, at any time and from time to time (i) notify, in form and substance reasonably satisfactory to the Collateral Agent, any warehouseman, bailee, or any of such Grantor’s agents or processors having possession of any Collateral consisting of Inventory or Equipment with a Fair Market Value in excess of \$2,500,000 (calculated based on the Grantor’s estimate of the Fair Market Value of the Inventory or Equipment to be possessed by such warehouseman, bailee, agent or processor over the course of any calendar year on a weighted average basis) of the security interest of the Collateral Agent in such Collateral (with a copy of such notice sent to the Collateral Agent), (ii) use its commercially reasonable efforts to obtain an acknowledgment, in form and substance reasonably satisfactory to the Collateral Agent, from such warehouseman, bailee, agent or processor (other than with respect to any ABL First Lien Collateral, unless the ABL Collateral Agent, if any, shall also have obtained such acknowledgement from such warehouseman, bailee, agent or processor) and not having otherwise entered into a subordination agreement for the benefit of the Collateral Agent, stating that the warehouseman, bailee, agent or processor holds such Collateral for the Collateral Agent, subject to each Intercreditor Agreement (if any) and (iii) take such steps as are necessary or as the Collateral Agent may reasonably request (A) for the Collateral Agent to obtain “control” of any Investment Property Collateral, deposit accounts, letter-of-credit rights, or Electronic Chattel Paper (as such terms, to the extent they are undefined herein, are defined by Article 9 of the UCC with corresponding provisions thereof defining what constitutes “control” for such items of Collateral) constituting Noteholder First Lien Collateral in excess of \$500,000 (other than Investment Property Collateral constituting Equity Interests of a Subsidiary for which no minimum dollar amount shall apply), excluding any Excluded Assets, with any agreements establishing control to be in form and substance reasonably satisfactory to the Collateral Agent and (B) to otherwise ensure the continued perfection and priority of the Collateral Agent’s security interest in any of the Collateral (to the extent required hereunder) and of the preservation of its rights therein. The \$500,000 threshold described in clause (iii)(A) of the preceding sentence as it relates to any deposit account shall be measured by reference to the closing balance of such deposit account as of each Business Day.

(d) Change of Name, Etc. Each Grantor agrees to furnish to the Collateral Agent prompt written notice of any change in: (i) such Grantor’s name; (ii) such Grantor’s state of organization or form of organization, in each case at least fifteen (15) days prior thereto; (iii) such Grantor’s Federal Taxpayer Identification Number or organizational identification number assigned to it by its jurisdiction of incorporation or formation; or (iv) the acquisition by

such Grantor of any material property for which additional filings or recordings are necessary to perfect and maintain the Collateral Agent's security interest therein (to the extent perfection of the security interest in such property is required hereby or by the terms of the Indenture). Each Grantor agrees not to effect or permit any change referred to in the preceding sentence unless all filings are promptly made under the Uniform Commercial Code or other applicable law that are required in order for the Collateral Agent to continue at all times following such change to have a valid, legal and perfected, security interest (subject to the terms of each Intercreditor Agreement (if any) and subject to Permitted Liens) in the Collateral for its benefit and the benefit of the other Secured Parties.

(e) Change in Location of Collateral. No Grantor shall (i) maintain any Collateral with a Fair Market Value in excess of \$2,500,000 (other than Inventory in transit, consignments of Inventory not in excess of \$2,500,000, rolling stock, equipment in transit between locations set forth in Exhibit A, equipment at other locations for purposes of maintenance or repair and Collateral in the Collateral Agent's possession or the possession of any ABL Collateral Agent) at any location other than those locations listed on Exhibit A, (ii) otherwise change or add to any of such locations, or (iii) change the location of its jurisdiction of organization from the location identified in Exhibit A, unless in each case it gives the Collateral Agent prompt written notice thereof but in any event described in clause (iii) not later than 30 days prior thereto, and executes or authorizes the filing of any and all financing statements and other documents that are necessary or that the Collateral Agent reasonably requests in connection therewith. In the event any Grantor changes or adds any location of Collateral, such Grantor shall prepare and promptly deliver to the Collateral Agent a revised Exhibit A, which shall automatically be adopted as Exhibit A for all purposes. Each Grantor agrees not to effect or permit any change referred to in the preceding sentences unless all filings are promptly made under the Uniform Commercial Code or other applicable law that are required in order for the Collateral Agent to continue at all times following such change to have a valid, legal and perfected security interest (subject to the terms of each Intercreditor Agreement (if any) and subject to Permitted Liens) in the Collateral for its benefit and the benefit of the other Secured Parties.

Section 4.2 Perfection and Protection of Security Interest.

(a) Perfection and Protection. Each Grantor shall, at its expense, perform all steps necessary or otherwise reasonably requested by the Collateral Agent (at the direction of the Majority Holders) at any time to perfect, maintain, protect, and enforce the Collateral Agent's Liens, subject to the terms of each Intercreditor Agreement (if any), including: (i) filing and recording of the Copyright, Patent, and Trademark Agreements, and amendments thereof in the United States Patent and Trademark Office, the United States Copyright Office and the European Patent Office, and filing financing statements or continuation statements in the respective Filing Office; (ii) to the extent constituting Noteholder First Lien Collateral, delivering to the Collateral Agent the originals of all instruments, documents, and Chattel Paper (in each case in excess of \$250,000), and all other Collateral of which the Collateral Agent is required to have or reasonably requests to have physical possession of in order to perfect and protect the Collateral Agent's security interest therein, duly pledged, endorsed, or assigned to the Collateral Agent as provided herein; (iii) deliver to the Collateral Agent a duly executed amendment to this Agreement, in the form of Exhibit F hereto (each, an "Amendment"), pursuant to which such

Grantor will pledge any additional Collateral that constitutes Commercial Tort Claims; (iv) upon the occurrence and during the continuation of an Event of Default, delivering to the Collateral Agent (A) warehouse receipts covering any portion of the Noteholder First Lien Collateral located in warehouses and for which warehouse receipts are issued, (B) warehouse receipts covering any portion of the ABL First Lien Collateral (so long as no Senior Liens are outstanding on such Collateral) located in warehouses and for which warehouse receipts are issued and (C) if requested by the Collateral Agent, certificates of title reflecting the Collateral Agent's Liens covering any portion of the Collateral for which certificates of title have been issued; (v) when an Event of Default exists, transferring Inventory to warehouses or other locations designated by the Collateral Agent; (vi) upon the occurrence and during the continuance of an Event of Default, delivering to the Collateral Agent all letters of credit constituting Collateral on which such Grantor is named beneficiary; and (vii) taking such other steps as are reasonably deemed necessary or desirable by the Collateral Agent (acting at the direction of the Majority Holders) to maintain, protect and enforce the Collateral Agent's Liens. To the extent permitted by any Requirement of Law and each Intercreditor Agreement (if any), the Collateral Agent may file, without any Grantor's signature, one or more financing statements disclosing the Collateral Agent's Liens. Each Grantor hereby authorizes the Collateral Agent to attach each Amendment to this Agreement and agrees that all additional collateral set forth in such Amendments shall be considered to be part of the Collateral.

(b) Collateral in Other's Possession. If at any time any Collateral with a Fair Market Value in excess of \$2,500,000 (other than ABL First Lien Collateral, unless (i) no Senior Liens on such Collateral are outstanding or (ii) the applicable ABL Collateral Agent shall also have obtained such waiver or subordination from such landlord) is located at any operating facility of a Grantor which is not owned by such Grantor, such Grantor shall, upon request, use commercially reasonable efforts to obtain written landlord lien waivers or subordinations, in form and substance reasonably satisfactory to the Collateral Agent, of all present and future Liens to which the owner or lessor of such premises may be entitled to assert against such Collateral.

(c) Confirmatory Instruments. From time to time, subject to each Intercreditor Agreement (if any), each Grantor shall, upon the Collateral Agent's request, execute and deliver confirmatory written instruments pledging to the Collateral Agent, for the benefit of the Secured Parties, the Collateral with respect to such Grantor, but the failure to do so shall not affect or limit any security interest or any other rights of the Secured Parties in and to the Collateral with respect to such Grantor.

Section 4.3 Electronic Chattel Paper. If any Grantor at any time holds or acquires an interest in any Electronic Chattel Paper or any "transferable record", as that term is defined in Section 201 of the Federal Electronic Signatures in Global and National Commerce Act, or in Section 16 of the Uniform Electronic Transactions Act as in effect in any relevant jurisdiction, such Grantor shall promptly notify the Collateral Agent thereof and (other than if such Electronic Chattel Paper constitutes ABL First Lien Collateral for which Senior Liens are outstanding) shall take such action as is necessary to vest in the Collateral Agent Control under UCC Section 9-105 of such Electronic Chattel Paper or control (to the extent the meaning of "control" has not been clearly established under such provisions, "control" in this paragraph (d) to have such meaning as the Collateral Agent shall reasonably specify in writing after

consultation with the Issuer) under Section 201 of the Federal Electronic Signatures in Global and National Commerce Act or, as the case may be, Section 16 of the Uniform Electronic Transactions Act, as so in effect in such jurisdiction, of such transferable record. The Collateral Agent agrees with such Grantor that the Collateral Agent will arrange, pursuant to procedures reasonably satisfactory to the Collateral Agent and so long as such procedures will not result in the Collateral Agent's loss of Control or control, as applicable, which may be established to the satisfaction of the Collateral Agent pursuant to the delivery to it by the Grantor of an Officers' Certificate or an Opinion of Counsel, for the Grantor to make alterations to the Electronic Chattel Paper or transferable record permitted under UCC Section 9-105 or, as the case may be, Section 201 of the Federal Electronic Signatures in Global and National Commerce Act or Section 16 of the Uniform Electronic Transactions Act for a party in Control to allow without loss of Control or control, as applicable, unless an Event of Default has occurred and is continuing or would occur after taking into account any action by such Grantor with respect to such Electronic Chattel Paper or transferable record.

Section 4.4 Maintenance of Property. Except as otherwise permitted hereunder or pursuant to the Indenture Documents, each Grantor shall maintain all of its property necessary and useful in the conduct of its business, in reasonable operating condition and repair, ordinary wear and tear excepted.

Section 4.5 Investment Property.

(a) Registration in Nominee Name; Denominations. The Collateral Agent, on behalf of the Secured Parties, shall hold certificated Investment Property Collateral in the name of the applicable Grantor, endorsed or assigned in blank or in favor of the Collateral Agent, but following the occurrence and during the continuance of an Event of Default shall have the right (in its sole and absolute discretion) to hold such Investment Property Collateral in its own name as pledgee, or in the name of its nominee (as pledgee or as sub-agent). Each Grantor will promptly give to the Collateral Agent copies of any material notices or other material communications received by it with respect to any Investment Property Collateral registered in the name of such Grantor (provided, that if such Investment Property Collateral constitutes ABL First Lien Collateral only so long as no Senior Liens are outstanding on such Collateral). Following the occurrence and during the continuance of an Event of Default, the Collateral Agent shall at all times have the right to exchange the certificates representing Investment Property Collateral for certificates of smaller or larger denominations for any purpose consistent with this Agreement (provided, that if such Investment Property Collateral constitutes ABL First Lien Collateral only so long as no Senior Liens are outstanding on such Collateral).

(b) Voting Rights, Distributions, Etc. in Respect of Investment Property Collateral.

(i) Unless an Event of Default exists and subject to each Intercreditor Agreement (if any), (A) each Grantor shall be entitled to exercise any and all voting and other consensual rights (including, the right to give consents, waivers, and notifications in respect of any securities) pertaining to its Investment Property Collateral or any part thereof; provided, however, that without the prior written consent of the Collateral Agent and the Trustee obtained in accordance with the Indenture (provided, that if such

Investment Property Collateral constitutes ABL First Lien Collateral only so long as no Senior Liens are outstanding on such Collateral), no vote shall be cast or consent, waiver, or ratification given or action taken which would amend, modify, or waive any term, provision, or condition of the certificate of incorporation, bylaws, certificate of formation, or other charter document or other agreement relating to, evidencing or providing for the issuance of any such Investment Property Collateral, in any manner that would materially impair such Investment Property Collateral, the transferability thereof, or the Collateral Agent's Liens therein, and (B) each Grantor shall be entitled to receive and retain any and all dividends, interest paid and other cash distributions in respect of any of such Investment Property Collateral (unless otherwise required by the Indenture).

(ii) During the existence of an Event of Default, subject to each Intercreditor Agreement (if any) and the rights of any applicable ABL Collateral Agent and any ABL Secured Parties thereunder, (A) the Collateral Agent may, after delivery of notice to the applicable Grantor, exercise all voting and corporate rights at any meeting of any corporation, partnership, or other business entity issuing any of the Investment Property Collateral and the proceeds thereof (in cash or otherwise) held by the Collateral Agent hereunder, and any and all rights of conversion, exchange, subscription, or any other rights, privileges, or options pertaining to any of the Investment Property Collateral as if it were the absolute owner thereof, including, the right to exchange at its discretion any and all of the Investment Property Collateral upon the merger, consolidation, reorganization, recapitalization, or other readjustment of any Investment Property Issuer or upon the exercise by any such issuer or the Collateral Agent of any right, privilege, or option pertaining to any of the Investment Property Collateral, and in connection therewith, to deposit and deliver any and all of the Investment Property Collateral with any committee, depository, transfer agent, registrar, or other designated agency upon such terms and conditions as it may determine, all without liability except to account for property actually received by it, but the Collateral Agent shall have no duty to exercise any of the aforesaid rights, privileges, or options, and the Collateral Agent shall not be responsible for any failure to do so or delay in so doing, (B) all rights of any Grantor to exercise the voting and other consensual rights which it would otherwise be entitled to exercise pursuant to Section 4.5(b)(i) and to receive the dividends, interest, and other distributions which it would otherwise be authorized to receive and retain thereunder shall be suspended until such Event of Default shall no longer exist or as the Collateral Agent shall otherwise specify, and all such rights shall, until such Event of Default shall no longer exist or as the Collateral Agent shall otherwise specify, thereupon become vested in the Collateral Agent which shall thereupon have the sole right, but no duty, to exercise such voting and other consensual rights and to receive and hold as Investment Property Collateral such dividends, interest, and other distributions, (C) all dividends, interest, and other distributions which are received by any Grantor contrary to the provisions of this Section 4.5(b)(ii) shall be received in trust for the benefit of the Collateral Agent, shall be segregated from other funds of such Grantor and shall be forthwith paid over to the Collateral Agent as Collateral in the same form as so received (with any necessary endorsement), and (D) each Grantor shall execute and deliver (or cause to be executed and delivered) to the Collateral Agent all such proxies and other instruments as the Collateral Agent may reasonably request for the purpose of enabling the Collateral Agent to exercise the voting and other rights which it is entitled to exercise

pursuant to this Section 4.5(b)(ii) and to receive the dividends, interest, and other distributions which it is entitled to receive and retain pursuant to this Section 4.5(b)(ii). The foregoing shall not in any way limit the Collateral Agent's power and authority granted pursuant to Section 7.4. After all Events of Default have been cured or waived and the applicable Grantor shall have delivered to the Collateral Agent certificates to that effect, the Collateral Agent shall, promptly after all such Events of Default have been cured or waived, repay to each Grantor (without interest) all dividends or other distributions that such Grantor would otherwise be permitted to retain pursuant to the terms of Section 4.5(b)(i) above and that remain in such account.

(c) The Grantors will cause or permit the Collateral Agent from time to time to cause the appropriate Investment Property Issuers (and, if held with a securities intermediary, such securities intermediary) of uncertificated securities or other types of Investment Property Collateral not represented by certificates to mark their books and records with the numbers and face amounts of all such uncertificated securities or other types of Investment Property Collateral not represented by certificates and all rollovers and replacements therefor to reflect the Lien of the Collateral Agent granted pursuant to this Agreement. The Grantors will take any actions reasonably necessary to cause (a) the Investment Property Issuers of uncertificated securities which are Investment Property Collateral, and (b) any securities intermediary which is the holder of any Investment Property Collateral, to cause the Collateral Agent to have and retain Control over such Investment Property Collateral.

Section 4.6 Proprietary Rights.

(a) The Issuer, either directly or through any agent, employee, licensee or designee, shall inform the Collateral Agent on an annual basis of each application for the registration of any material Proprietary Right owned or licensed by the Issuer or any of its Affiliates with the United States Patent and Trademark Office, the United States Copyright Office or any similar office or agency filed during the preceding year.

Section 4.7 Inventory. Each Grantor shall keep its Inventory (other than returned or obsolete Inventory) in good and marketable condition, except for damaged or defective goods arising in the ordinary course of such Grantor's business.

Section 4.8 Commercial Tort Claims. If any Grantor shall at any time, acquire a Commercial Tort Claim, the recovery from which could reasonably be expected to exceed \$500,000, such Grantor shall promptly notify the Collateral Agent thereof in a writing, therein providing a reasonable description and summary thereof, and upon delivery thereof to the Collateral Agent, together with an Amendment as contemplated by Section 4.2(a)(iii), such Grantor shall be deemed thereby to grant to the Collateral Agent a security interest in such Commercial Tort Claim (subject to each Intercreditor Agreement (if any)).

Section 4.9 No Interference. Each Grantor agrees that it will not interfere with any right, power and remedy of the Collateral Agent provided for in this Agreement or now or hereafter existing at law or in equity or by statute or otherwise, or the exercise or beginning of the exercise by the Collateral Agent of any one or more of such rights, powers or remedies.

Section 4.10 Insurance.

(a) The Grantors shall maintain with financially sound and reputable insurers insurance that is reasonably consistent with prudent industry practice.

(b) For each of the insurance policies issued as required by this Section 4.10 with respect to Collateral, each Grantor shall cause the Collateral Agent, for the benefit of the Secured Parties, to be named as an additional insured with respect to insurance policies for general liability for bodily injury and a lenders loss payee for insurance policies for property damage. Certificates of insurance of the policies shall be delivered to the Collateral Agent if requested.

(c) The Issuer shall promptly provide written notice to the Collateral Agent of any loss, damage, or destruction to the Collateral in excess of (A) \$1,500,000 if covered by insurance or (B) \$500,000 if not covered by insurance. During the existence of an Event of Default, subject to each Intercreditor Agreement (if any) and the rights of any applicable ABL Collateral Agent and any ABL Secured Parties thereunder, the Collateral Agent is hereby authorized to directly collect all insurance proceeds in respect of Collateral and to apply such proceeds in accordance with Section 5.3.

(d) Unless the Grantors provide the Collateral Agent with evidence of the insurance coverage on the Collateral required by this Section 4.10, subject to each Intercreditor Agreement (if any), the Collateral Agent may, upon sixty (60) days' prior notice, purchase insurance at the applicable Grantor's expense to protect the Collateral Agent's Lien on such Collateral owned by the applicable Grantor. This insurance may, but need not, protect the interests of the Grantors. The coverage that the Collateral Agent purchases may (but shall not be required to) pay any claim that the Grantors make or any claim that is made against the Grantors in connection with said Collateral. The Grantors may later cancel any insurance purchased by the Collateral Agent but only after providing the Collateral Agent with evidence that the Grantors have obtained insurance as required by this Agreement. If the Collateral Agent purchases such insurance, the applicable Grantor will be responsible for the costs of that insurance, including interest and any other reasonable charges the Collateral Agent may impose in connection with the placement of insurance, until the effective date of the cancellation or expiration of the insurance. The costs of the insurance shall be added to the Obligations. The costs of the insurance may be more than the cost of insurance that the Grantors may be able to obtain on their own.

Section 4.11 Condemnation. Subject to each Intercreditor Agreement (if any) and the rights of any applicable ABL Collateral Agent and any ABL Secured Parties thereunder, each Grantor shall, promptly upon learning of the institution of any proceeding for the condemnation or other taking of any of its property with a Fair Market Value in excess of \$500,000, notify the Collateral Agent of the pendency of such proceeding.

Section 4.12 Further Assurances. The Grantors shall, at their own cost and expense, execute and deliver, or cause to be executed and delivered, to the Collateral Agent and/or the Trustee such documents and agreements, and shall take or cause to be taken such actions, as are necessary or that the Collateral Agent and/or the Trustee may, from time to time,

reasonably request to carry out the terms and conditions of this Agreement and the other Indenture Documents. Upon the acquisition by any Grantor of any After-Acquired Property (but subject to the limitations, if applicable, set forth herein, in the Indenture or in each Intercreditor Agreement (if any)), such Grantor shall execute and deliver such security instruments, financing statements and certificates and opinions of counsel as shall be reasonably necessary to vest in the Collateral Agent a perfected security interest or other Lien in such After-Acquired Property and to have such After-Acquired Property added to the Collateral and shall promptly deliver such Officers' Certificates and Opinions of Counsel as are customary in secured financing transactions in the relevant jurisdiction(s) or as are reasonably requested by the Trustee or the Collateral Agent (subject to customary assumptions, exceptions and qualifications), and thereupon all provisions of this Agreement relating to the Collateral, shall be deemed to relate to such After-Acquired Property to the same extent and with the same force and effect. If any property or assets of the Issuer or any Grantor originally deemed to be an Excluded Asset at any point ceases to be an Excluded Asset pursuant to such defined term, all or the applicable portion of such property and assets shall be deemed to be After-Acquired Property and shall be added to the Notes Collateral in accordance with the Indenture and this Agreement and each Intercreditor Agreement (if any). Subject to each Intercreditor Agreement (if any), such security interests and Liens will be created under security agreements and other instruments and documents in form reasonably satisfactory to the Collateral Agent, and the Grantors shall deliver or cause to be delivered to the Collateral Agent and the Trustee all such instruments and documents (including legal opinions, Officers' Certificates, title insurance policies and lien searches) as are necessary or that the Collateral Agent shall reasonably request to evidence compliance with this Section 4.12. The Grantors shall furnish to the Collateral Agent each year at the time of delivery of the annual report required to be delivered by the Company pursuant to Section 4.02(a) of the Indenture, an Officer's Certificate setting forth the information required pursuant to the Perfection Certificate or confirming that there has been no change in such information since the Effective Date or the date of the most recent certificate delivered pursuant to this Section 4.12.

ARTICLE V REMEDIES

Section 5.1 Remedies.

(a) If an Event of Default has occurred and is continuing:

(i) the Collateral Agent shall have, for the benefit of the Secured Parties, in addition to all other rights of the Collateral Agent and the Trustee, the rights and remedies of a secured party under the UCC (whether or not the UCC applies to the affected Collateral) or under any other applicable law when a debtor is in default under a security agreement;

(ii) the Collateral Agent may, at any time, take possession of the Collateral and keep it on any Grantor's premises, at no cost to the Collateral Agent, the Trustee or any other Secured Party or remove any part of it to such other place or places as the Collateral Agent may desire, or any Grantor shall, upon the Collateral Agent's demand, at such Grantor's cost, assemble the Collateral and make it available to the Collateral Agent at a place reasonably convenient to the Collateral Agent;

(iii) the Collateral Agent may sell and deliver any Collateral at public or private sales, for cash, upon credit, or otherwise, at such prices and upon such terms as the Collateral Agent deems advisable, in its sole discretion, and may, if the Collateral Agent deems it reasonable, postpone or adjourn any sale of the Collateral by an announcement at the time and place of sale or of such postponed or adjourned sale without giving a new notice of sale; provided, that in connection with any such sale of Collateral, the Collateral Agent shall use its reasonable commercial efforts to maintain the confidentiality of any proprietary information of the Grantors (consistent with the confidentiality obligations of the Holders of the Securities as required by the Indenture Documents).

(iv) the Collateral Agent may give notice of sole control or any other instruction under any Account Control Agreement and take any action provided therein with respect to the applicable Collateral;

(v) the Collateral Agent may, concurrently with or following written notice to the Grantors, transfer and register in its name or in the name of its nominee the whole or any part of the Investment Property Collateral, exchange certificates or instruments representing or evidencing Investment Property Collateral for certificates or instruments of smaller or larger denominations, exercise the voting and all other rights as a holder with respect thereto, collect and receive all cash dividends, interest, principal and other distributions made thereon and otherwise act with respect to the Investment Property Collateral as though the Collateral Agent was the outright owner thereof.

(b) Without in any way requiring notice to be given in the following manner, each Grantor agrees that any notice by the Collateral Agent of sale, disposition, or other intended action hereunder or in connection herewith, whether required by the UCC or otherwise, shall constitute reasonable notice to the Grantors if such notice is mailed by registered or certified mail, return receipt requested, postage prepaid, or is delivered personally against receipt, at least ten (10) Business Days prior to such action to the Grantors' address specified in or pursuant to Section 8.1.

(c) If any Collateral is sold on terms other than payment in full at the time of sale, no credit shall be given against the Obligations until the Collateral Agent receives payment, and if the buyer defaults in payment, the Collateral Agent may resell the Collateral without further notice to any Grantor.

(d) In the event the Collateral Agent seeks to take possession of all or any portion of the Collateral by judicial process, each Grantor irrevocably waives: (i) the posting of any bond, surety, or security with respect thereto which might otherwise be required; (ii) any demand for possession prior to the commencement of any suit or action to recover the Collateral; and (iii) any requirement that the Collateral Agent retain possession and not dispose of any Collateral until after trial or final judgment.

(e) If an Event of Default occurs and is continuing, each Grantor hereby waives all rights to a hearing prior to the exercise by the Collateral Agent of the Collateral Agent's rights to repossess the Collateral without judicial process or to replevy, attach, or levy upon the Collateral.

(f) Each Grantor acknowledges and agrees that the Collateral Agent has no obligation to preserve rights to the Collateral or marshal any Collateral for the benefit of any Person.

(g) Each Grantor acknowledges and agrees that the compliance by the Collateral Agent, on behalf of the Secured Parties, with any applicable state or federal law requirements may be required in connection with a disposition of the Collateral and such compliance will not be considered to adversely affect the commercial reasonableness of any sale of the Collateral.

(h) The Collateral Agent shall have the right upon any public sale or sales and, to the extent permitted by law, upon any private sale or sales, to purchase for the benefit of the Collateral Agent and the other Secured Parties, the whole or any part of the Collateral so sold, free of any right of equity redemption, which equity redemption each Grantor hereby expressly releases.

(i) Until the Collateral Agent is able to effect a sale, lease, transfer or other disposition of Collateral, the Collateral Agent shall have the right, but no duty or obligation, to hold or use Collateral, or any part thereof, to the extent that it deems appropriate for the purpose of preserving Collateral or the value of the Collateral, or for any other purpose deemed appropriate by the Collateral Agent. The Collateral Agent may, if it so elects, but shall have no obligation to, seek the appointment of a receiver or keeper to take possession of Collateral and to enforce any of the Collateral Agent's remedies (for the benefit of the Collateral Agent and Secured Parties), with respect to such appointment without prior notice or hearing as to such appointment.

(j) Each Grantor recognizes that the Collateral Agent may be unable to effect a public sale of any or all of the Collateral consisting of securities to be sold by reason of certain prohibitions contained in the laws of any jurisdiction outside the United States or in applicable federal or state securities laws but may be compelled to resort to one or more private sales thereof to a restricted group of purchasers who will be obliged to agree, among other things, to acquire such Collateral or other property to be sold for their own account for investment and not with a view to the distribution or resale thereof. Each Grantor acknowledges and agrees that any such private sale may result in prices and other terms less favorable to the seller than if such sale were a public sale and, notwithstanding such circumstances, agrees that any such private sale shall not, by virtue thereof, be deemed to have been made in a commercially unreasonable manner. Unless required by a Requirement of Law, the Collateral Agent shall not be under any obligation to delay a sale of any of the Collateral or other property to be sold for the period of time necessary to permit the issuer of such securities to register such securities under the laws of any jurisdiction outside the United States or under any applicable federal or state securities laws, even if such issuer would agree to do so. Each Grantor further agrees to do or cause to be done, at its own cost and expense, to the extent that such Grantor may do so under Requirements of Law, all such other acts and things as may be necessary to make such sales or resales of any portion or all of the Collateral or other property to be sold valid and binding and in compliance with any and all Requirements of Law at the Grantors' expense.

(k) Any remedy or enforcement action to be taken hereunder by the Collateral Agent with respect to the Collateral shall be at the written direction of the Majority Holders.

(l) Notwithstanding the foregoing, any rights and remedies provided in this Section 5.1 shall be subject to each Intercreditor Agreement (if any).

Section 5.2 Grant of Intellectual Property License. Effective only upon the occurrence and during the continuance of an Event of Default, for the purpose of enabling the Collateral Agent to exercise the rights and remedies under this Article V at such time as the Collateral Agent shall be lawfully entitled to exercise such rights and remedies, subject to the terms of each Intercreditor Agreement (if any), each Grantor hereby grants to the Collateral Agent a non-exclusive license or other right to use, without charge, each Grantor's labels, patents, copyrights, name, trade secrets, trade names, trademarks, and advertising matter, or any similar property, to the extent constituting Collateral in completing production of, advertising or selling any Collateral, and, subject to the rights of any licensor or franchisor under such agreements and to the extent not in violation of such agreements, each Grantor's rights under all licenses and all franchise agreements shall inure to the Collateral Agent's benefit for such purpose.

Section 5.3 Application of Proceeds. Subject to each Intercreditor Agreement (if any), the Collateral Agent shall apply the proceeds of any collection, sale, foreclosure or other realization upon any Collateral, as well as any Collateral consisting of cash, as follows:

FIRST, to the payment of all reasonable costs and expenses incurred by the Collateral Agent (in its capacity as such hereunder or under the Indenture or any other Indenture Document) and the Trustee in connection with such collection, sale, foreclosure or realization or reasonable costs, expenses, claims or liabilities of the Collateral Agent or the Trustee otherwise relating to or arising in connection with this Agreement, the Indenture or any other Indenture Document or any of the Obligations, including all court costs and the reasonable fees and expenses of its agents and legal counsel, the repayment of all advances made by the Collateral Agent or the Trustee hereunder or under the Indenture or any other Indenture Document on behalf of any Grantor, any other reasonable costs or expenses incurred by the Collateral Agent or the Trustee in connection with the exercise of any remedy hereunder or under the Indenture or any other Indenture Document, and any indemnification of the Collateral Agent and the Trustee required by the terms hereunder, under the Indenture or any other Indenture Document;

SECOND, to the interest due in respect of the Obligations which such Collateral secures;

THIRD, to the remaining Obligations which such Collateral secures; and

FOURTH, to the applicable Grantors, their successors or assigns, or as a court of competent jurisdiction may otherwise direct.

Except as otherwise provided herein, the Collateral Agent shall have absolute discretion as to the time of application of any such proceeds, moneys or balances in accordance with this Agreement and each Intercreditor Agreement (if any). Upon any sale of Collateral by the Collateral Agent (including pursuant to a power of sale granted by statute or under a judicial proceeding), the receipt of the Collateral Agent or of the officer making the sale shall be a sufficient discharge to the purchaser or purchasers of the Collateral so sold and such purchaser or purchasers shall not be obligated to see to the application of any part of the purchase money paid over to the Collateral Agent or such officer or be answerable in any way for the misapplication thereof.

ARTICLE VI CONCERNING THE COLLATERAL AGENT

Section 6.1 Reliance by Collateral Agent; Indemnity Against Liabilities, etc.

(a) Whenever in the performance of its duties under this Agreement or any other Indenture Document, the Collateral Agent shall deem it necessary or desirable that a matter be proved or established with respect to the Grantors or any other Person in connection with the taking, suffering or omitting of any action hereunder by the Collateral Agent, such matter may be conclusively deemed to be proved or established by a certificate executed by an Officer of such Person, including an Officers' Certificate or an Opinion of Counsel, and the Collateral Agent shall have no liability with respect to any action taken, suffered or omitted in reliance thereon. The Collateral Agent may at any time solicit written confirmatory instructions, including a direction of the Trustee, any Grantor or an order of a court of competent jurisdiction as to any action that it may be requested or required to take or that it may propose to take in the performance of any of its obligations under this Agreement or any other Indenture Document and shall be fully justified in failing or refusing to act hereunder or under any Indenture Document until it shall have received such requisite instruction.

(b) The Collateral Agent shall be fully protected in relying upon any note, writing, affidavit, electronic communication, fax, resolution, statement, certificate, instrument, opinion, report, notice (including any notice of an Event of Default or of the cure or waiver thereof), request, consent, order or other paper or document or oral conversation (including, telephone conversations) which it in good faith believes to be genuine and correct and to have been signed, presented or made by the proper party. The Collateral Agent may conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon any notice, certificate or opinion furnished to the Collateral Agent in connection with this Agreement or any other Indenture Document and upon advice and statements of legal counsel (including counsel to the Issuer or any Grantor, independent accountants and other agents consulted by the Collateral Agent).

Section 6.2 Exercise of Remedies. The remedies of the Collateral Agent hereunder and under the other Security Documents shall include, but not be limited to, the disposition of the Collateral by foreclosure or other sale and the exercising of all remedies of a secured lender under the UCC, bankruptcy laws or similar laws of any applicable jurisdiction.

Section 6.3 Authorized Investments. Any and all funds held by the Collateral Agent in its capacity as Collateral Agent, whether pursuant to any provision hereof or of any other Security Document or otherwise, shall, to the extent reasonably practicable following receipt by the Collateral Agent from the Issuer of specific written instructions in form and substance reasonably satisfactory to the Collateral Agent delivered to the Collateral Agent at least three (3) business days prior to the proposed investment, be invested by the Collateral Agent within a reasonable time in the Cash Equivalents identified in such written instructions. Any interest earned on such funds shall be disbursed (i) during an Event of Default, in accordance with Section 5.3 and (ii) at all other times, as the Issuer shall direct. To the extent that the interest rate payable with respect to any such account varies over time, the Collateral Agent may use an average interest rate in making the interest allocations among the respective Secured Parties. In the absence of gross negligence or willful misconduct, the Collateral Agent shall not be responsible for any investment losses in respect of any funds invested in accordance with this Section 6.3. The Collateral Agent shall have no duty or obligation regarding the reinvestment of any such funds in the absence of updated written instructions from the Issuer in form and substance reasonably satisfactory to the Collateral Agent.

Section 6.4 Bankruptcy Proceedings. The following provisions shall apply during any Bankruptcy Proceeding of any Grantor:

(a) The Collateral Agent shall represent all Secured Parties in connection with all matters directly relating to the Collateral, including, any use, sale or lease of Collateral, use of cash collateral, request for relief from the automatic stay and request for adequate protection.

(b) Each Secured Party shall be free to act independently on any issue not affecting the Collateral. Each Secured Party shall give prior notice to the Collateral Agent of any such action that could materially affect the rights or interests of the Collateral Agent or the other Secured Parties to the extent that such notice is reasonably practicable. If such prior notice is not given, such Secured Party shall give prompt notice following any action taken hereunder.

(c) Any proceeds of the Collateral received by any Secured Party as a result of, or during, any Bankruptcy Proceeding will be delivered promptly to the Collateral Agent for distribution in accordance with Section 5.3.

**ARTICLE VII
COLLATERAL AGENT AND TRUSTEE RIGHTS, DUTIES AND
LIABILITIES; ATTORNEY IN FACT; PROXY**

Section 7.1 The Collateral Agent's and the Trustee's Rights, Duties, and Liabilities.

(a) The Grantors assume all responsibility and liability arising from or relating to the use, maintenance, storage, sale, collection, foreclosure, realization on, conveyance or other disposition of or involving the Collateral. The Obligations shall not be affected by any failure of any Grantor, the Collateral Agent or the Trustee to take any steps to perfect the Collateral Agent's Liens or to collect or realize upon the Collateral, nor shall loss of or damage to the Collateral release any Grantor from any of the Obligations. Following the occurrence and

during the continuation of an Event of Default, the Collateral Agent may (but shall not be required to), and at the direction of the Trustee shall, subject to each Intercreditor Agreement (if any) and the terms of the Indenture, without notice to or consent from any Grantor sue upon or otherwise collect, extend the time for payment of, modify or amend the terms of, compromise or settle for cash, credit, or otherwise upon any terms, grant other indulgences, extensions, renewals, compositions, or releases, and take or omit to take any other action with respect to the Collateral, any security therefor, any agreement relating thereto, any insurance applicable thereto, or any Person liable directly or indirectly in connection with any of the foregoing, without discharging or otherwise affecting the liability of any Grantor for the Obligations or under the Indenture, any other Indenture Document or any other agreement now or hereafter existing between any Secured Party and any Grantor.

(b) It is expressly agreed by the Grantors that, anything herein to the contrary notwithstanding, each of the Grantors shall remain liable under each of its contracts and each of its licenses to observe and perform all the conditions and obligations to be observed and performed by it thereunder. The Collateral Agent and the Trustee shall not have any obligation or liability under any contract or license by reason of or arising out of this Agreement or the granting herein of a Lien thereon or the receipt by the Collateral Agent or the Trustee of any payment relating to any contract or license pursuant hereto that is applied as required herein. The Collateral Agent and the Trustee shall not be required or obligated in any manner to perform or fulfill any of the obligations of any Grantor under or pursuant to any contract or license, or to make any payment, or to make any inquiry as to the nature or the sufficiency of any payment received by it or the sufficiency of any performance by any party under any contract or license, or to present or file any claims, or to take any action to collect or enforce any performance or the payment of any amounts which may have been assigned to it or to which it may be entitled at any time or times.

Section 7.2 Right to Cure. The Collateral Agent may, (but shall not be required to) in its reasonable discretion, subject to each Intercreditor Agreement (if any), pay any reasonable amount or do any reasonable act required of any Grantor hereunder or under any other Indenture Document in order to preserve, protect, maintain, or enforce the Obligations, the Collateral or the Collateral Agent's Liens therein, and which any Grantor fails to timely pay or do, including payment of any judgment against any Grantor, any insurance premium, any warehouse charge, any finishing or processing charge, any landlord's or bailee's claim, and any other Lien upon or with respect to the Collateral. All payments that the Collateral Agent makes under this Section 7.2 and all reasonable out-of-pocket costs and expenses that the Collateral Agent pays or incurs in connection with any action taken by it hereunder shall be promptly reimbursed by such Grantor. Any payment made or other action taken by the Collateral Agent under this Section 7.2 shall be without prejudice to any right to assert an Event of Default hereunder and to proceed thereafter as herein provided.

Section 7.3 Confidentiality.

(a) The Collateral Agent, in its individual capacity and as Collateral Agent, and the Trustee, in its individual capacity and as Trustee, agree and acknowledge that all information provided to the Collateral Agent or the Trustee by any Grantor may be considered to be proprietary and confidential information ("Confidential Information"). The Trustee and the

Collateral Agent each agrees to take all reasonable precautions necessary to keep such information confidential, which precautions shall be no less stringent than those that the Collateral Agent and the Trustee, as applicable, employs to protect its own confidential information. Each of the Collateral Agent and the Trustee shall not disclose to any third party other than as set forth herein, and shall not use for any purpose other than the exercise of the Collateral Agent's and the Trustee's rights and the performance of its respective obligations under this Agreement, any such information without the prior written consent of such Grantor, as applicable. Each of the Collateral Agent and the Trustee shall limit access to such information received hereunder to (a) its directors, officers, managers and employees and (b) its legal advisors, to each of whom disclosure of such information is necessary for the purposes described above; provided, however, that in each case such party has expressly agreed to maintain such information in confidence under terms and conditions substantially identical to the terms of this Section 7.3(a).

(b) Each of the Collateral Agent and the Trustee agree that each Grantor does not have any responsibility whatsoever for any reliance on Confidential Information by the Collateral Agent or the Trustee or by any Person to whom such information is disclosed in connection with this Agreement, whether related to the purposes described above or otherwise. Without limiting the generality of the foregoing, each of the Collateral Agent and the Trustee agrees that the Grantor makes no representation or warranty whatsoever to it with respect to Confidential Information or its suitability for such purposes. Each of the Collateral Agent and the Trustee further agrees that it shall not acquire any rights against the Grantor or any employee, officer, director, manager, representative or agent of the Grantor (together with the Issuer, "Confidential Parties") as a result of the disclosure of Confidential Information to the Trustee and that no Confidential Party has any duty, responsibility, liability or obligation to any Person as a result of any such disclosure.

(c) In the event the Collateral Agent or the Trustee is required to disclose any Confidential Information received hereunder in order to comply with any laws, regulations or court orders, it may disclose Confidential Information only to the extent necessary for such compliance; provided, however, that it shall give the Grantor, reasonable advance written notice of any such court proceeding in which such disclosure may be required pursuant to a court order so as to afford the Grantor full and fair opportunity to oppose the issuance of such order and to appeal therefrom and shall cooperate reasonably with the Grantor, as applicable, in opposing such order and in securing confidential treatment of any Confidential Information to be disclosed and/or obtaining a protective order narrowing the scope of such disclosure.

Section 7.4 Power of Attorney. Each Grantor, as to itself, hereby appoints the Collateral Agent and the Collateral Agent's designee as such Grantor's attorney, with power upon the occurrence and during the continuance of an Event of Default: (a) to endorse such Grantor's name on any checks, notes, acceptances, money orders, or other forms of payment or security that come into the Collateral Agent's or any Secured Parties' possession; (b) to sign such Grantor's name on any invoice, bill of lading, warehouse receipt, or other document of title relating to any Collateral, on drafts against customers, on assignments of Accounts, on notices of assignment, financing statements, and other public records and to file any such financing statements by electronic means with or without a signature as authorized or required by applicable law or filing procedure; (c) to notify the post office authorities to change the address

for delivery of such Grantor's mail to an address designated by the Collateral Agent and to receive, open, and dispose of all mail addressed to such Grantor; (d) to send requests for verification of Accounts to customers or Account Debtors (but if any such Accounts constitute ABL First Lien Collateral, only so long as no Senior Liens are outstanding on such Collateral); (e) to clear Inventory through customs in such Grantor's name, the Collateral Agent's name, or the name of the Collateral Agent's designee, and to sign and deliver to customs officials powers of attorney in such Grantor's name for such purpose; and (f) to do all things the Collateral Agent reasonably determines are necessary to carry out the security interest provisions of the Indenture and the provisions of this Agreement. Each Grantor ratifies and approves all acts of such attorney. Notwithstanding anything in this Agreement or any Indenture Document to the contrary, none of the Trustee, the Collateral Agent, nor their attorneys, employees or Affiliates will be liable for any acts or omissions or for any error of judgment or mistake of fact or law other than any such liability arising from any such Person's gross negligence or willful misconduct, as finally determined by a court of competent jurisdiction. Notwithstanding the foregoing, any rights and remedies provided in this Section 7.4 shall be subject to each Intercreditor Agreement (if any).

Section 7.5 NATURE OF APPOINTMENT; LIMITATION OF DUTY. THE APPOINTMENT OF THE COLLATERAL AGENT AS ATTORNEY-IN-FACT IN THIS ARTICLE VII IS COUPLED WITH AN INTEREST AND SHALL BE IRREVOCABLE UNTIL THE DATE ON WHICH THIS AGREEMENT IS TERMINATED IN ACCORDANCE WITH SECTION 8.13. NOTWITHSTANDING ANYTHING CONTAINED IN THIS AGREEMENT OR IN ANY INDENTURE DOCUMENT, NEITHER THE COLLATERAL AGENT, NOR ANY SECURED PARTY, NOR ANY OF THEIR RESPECTIVE AFFILIATES, OFFICERS, DIRECTORS, EMPLOYEES, AGENTS OR REPRESENTATIVES SHALL HAVE ANY DUTY TO EXERCISE ANY RIGHT OR POWER GRANTED HEREUNDER OR OTHERWISE OR TO PRESERVE THE SAME AND SHALL NOT BE LIABLE FOR ANY FAILURE TO DO SO OR FOR ANY DELAY IN DOING SO, EXCEPT TO THE EXTENT SUCH DAMAGES ARE ATTRIBUTABLE TO THEIR OWN GROSS NEGLIGENCE OR WILLFUL MISCONDUCT AS FINALLY DETERMINED BY A COURT OF COMPETENT JURISDICTION; PROVIDED THAT, IN NO EVENT SHALL THEY BE LIABLE FOR ANY PUNITIVE, EXEMPLARY, INDIRECT OR CONSEQUENTIAL DAMAGES.

Section 7.6 Additional Matters Relating to the Collateral Agent.

(a) The Collateral Agent. U.S. Bank National Association shall initially act as Collateral Agent for the Secured Parties and shall be authorized to appoint co-collateral agents as necessary in its sole discretion. U.S. Bank National Association, as Collateral Agent, is authorized and directed to (i) enter into the Indenture Documents, (ii) enter into Intercreditor Agreements, (iii) bind the Secured Parties on the terms as set forth in the Indenture Documents and any Intercreditor Agreement and (iv) perform and observe its obligations under the Indenture Documents and each Intercreditor Agreement (if any).

(b) Role of the Collateral Agent. The rights, duties, liabilities and immunities of the Collateral Agent and its appointment, resignation and replacement hereunder and under the Indenture and the other Indenture Documents shall be governed by this Agreement, Article 11 of the Indenture and the relevant provisions contained in the other Indenture Documents.

Without limiting the foregoing, the rights, privileges, protections and benefits given to the Collateral Agent under the Indenture are extended to, and shall be enforceable by, the Collateral Agent in connection with the execution, delivery and administration of this Agreement and the other Indenture Documents and any action taken or omitted to be taken by the Collateral Agent in connection with its appointment and performance under this Agreement and the other Indenture Documents to which it is a party.

(c) Absence of Fiduciary Relation. The Collateral Agent undertakes to perform or to observe only such of its agreements and obligations as are specifically set forth in this Agreement, the Indenture and the other Indenture Documents, and no implied agreements, covenants or obligations with respect to any Grantor or any Affiliate of any Grantor, any Secured Party or any other party shall be read into this Agreement against the Collateral Agent. The Collateral Agent in its capacity as such is not a fiduciary of and shall not owe or be deemed to owe any fiduciary duty to any Grantor or any Related Person of any Grantor.

(d) Exculpatory Provisions.

(i) None of the Collateral Agent, the Trustee or any of their respective officers, directors, employees, agents, attorneys-in-fact or Related Persons shall be responsible or liable in any manner (A) to any Grantor or any of their respective Related Persons for any action taken or omitted to be taken by it under or in connection with this Agreement in compliance herewith, (B) to any Secured Party or any other Person for any recitals, statements, representations, warranties, covenants or agreements contained in this Agreement or in any Indenture Document or in any certificate, report, statement or other document referred to or provided for in, or received by the Collateral Agent under or in connection with, this Agreement or any Indenture Document, (C) to any Secured Party or any other Person for the validity, effectiveness, adequacy, genuineness or enforceability of this Agreement or any Indenture Document, or any Lien purported to be created hereunder or under any Indenture Document, (D) to any Secured Party or any other Person for the validity or sufficiency of the Collateral or the validity of the title of any Grantor to the Collateral, for insuring the Collateral or for the payment of taxes, charges, assessments or Liens upon the Collateral or otherwise as to the maintenance of the Collateral or (E) to any Secured Party or other Person for any failure of any Grantor to perform its obligations hereunder or of the Issuer to perform any of the Obligations.

(ii) Notwithstanding anything to the contrary contained in this Agreement, (A) in no event shall the Trustee or the Collateral Agent be responsible for or have any obligation, duty or liability with respect to the creation, perfection, priority, maintenance, protection or enforcement of any Lien on, security interest in, pledge or other encumbrance involving or relating to the Collateral or any other assets, properties or rights of the Grantors, provided, however that the Collateral Agent acknowledges that with respect to the enforcement of any Liens, its actions will be subject to each Intercreditor Agreement (if any), (B) none of the Trustee or the Collateral Agent shall be responsible for filing any financing or continuation statements or recording any documents or instruments in any public office at any time or times or otherwise perfecting or maintaining the perfection of any Liens in the Collateral and (C) none of the Trustee or the Collateral Agent shall be under any obligation to any Person to ascertain or

to inquire as to the observance or performance of any of the agreements contained in, or conditions of, this Agreement or to inspect the properties or records of any Grantor. The permissive rights of the Collateral Agent to do things enumerated in this Agreement shall not be construed as a duty or obligation. The Collateral Agent may rely conclusively on any Opinions of Counsel rendered to the Collateral Agent under Section 11.02 of the Indenture and otherwise under the Indenture in determining any necessary or desirable actions under this Agreement. Notwithstanding anything to the contrary herein, the Collateral Agent's sole duty with respect to the custody, safekeeping and physical preservation of the Collateral in its possession, under the UCC or otherwise, shall be to deal with it in the same manner as the Collateral Agent deals with similar property for its own account and the Collateral Agent shall be deemed to have exercised reasonable care in the custody and preservation of the Collateral in its possession if the Collateral is accorded treatment substantially equal to that which comparable secured parties accord comparable collateral. None of the Collateral Agent or the Trustee shall be liable for failure to demand, collect or realize upon any of the Collateral or for any delay in doing so or shall be under any obligation to sell or otherwise dispose of any Collateral upon the request of any Grantor or any other Person or to take any other action whatsoever with regard to the Collateral or any part thereof.

(iii) Notwithstanding anything to the contrary contained herein, none of the Collateral Agent, the Trustee or any of their respective officers, directors, employees, agents, attorneys-in-fact, or Related Persons shall be exonerated from any liability arising from its or their own gross negligence or willful misconduct, as finally determined by a court of competent jurisdiction.

(e) Fees and Expenses. The Grantors agree that they shall, jointly and severally, upon demand pay to the Collateral Agent and any Secured Party the amount of any and all reasonable out-of-pocket fees, costs and expenses (including the reasonable fees and expenses of their respective counsel, any special consultants reasonably engaged (and, unless an Event of Default exists, engaged only with the consent of the Issuer), and any local counsel who might reasonably be retained by the Collateral Agent or any Secured Party, as the case may be, in connection with the transactions contemplated hereby) that the Collateral Agent or any Secured Party, as the case may be, may incur in connection with (i) any Event of Default, including the sale, lease, license or other disposition of, collection from, or other realization upon, any of the Collateral pursuant to the exercise or enforcement of any of their respective rights hereunder, (ii) the exercise of their respective rights under this Agreement or under any Indenture Document, including the custody, preservation, use or operation of, or the sale of, any of the Collateral (iii) performance by the Collateral Agent of any obligations of any Grantor that any Grantor has failed or refused to perform with respect to the Collateral, (iv) bankruptcy, insolvency, receivership, foreclosure, winding up or liquidation proceedings and defending or asserting rights and claims of the Collateral Agent in respect thereof, by litigation or otherwise, including expenses of insurance, or (v) the execution and delivery and administration of this Agreement, each Intercreditor Agreement and the other Indenture Documents and, any agreement supplemental hereto or thereto, and any instruments of amendment, waiver, further assurance, release or termination, including with respect to the termination and/or release of any or all of the Liens in the Collateral provided for in this Agreement and the other Security Documents. Any amounts payable by any Grantor pursuant to this Section 7.6 shall be payable on demand.

(f) Filing Fees, Taxes, etc. The Grantors, jointly and severally, shall pay all filing, registration and recording fees or re-filing, re-registration, and re-recording fees, and all federal, state, county, and municipal stamp taxes and other similar taxes, duties, imposts, assessments, and charges arising out of or in connection with the execution and delivery of this Agreement, the Indenture, each Intercreditor Agreement, the other Indenture Documents, and any agreement supplemental hereto or thereto and any instruments of further assurance or termination.

(g) Security Against Costs. Except for action expressly provided for herein and in the other Indenture Documents, the Collateral Agent shall be under no obligation to exercise any of the rights or powers vested in it by this Agreement or any other Indenture Document at the request, order or direction of any Secured Party pursuant to the provisions of the Indenture or any Indenture Document, unless such Secured Party shall have offered to the Collateral Agent reasonable security or indemnity against the costs, expenses and liabilities which may be incurred by it in compliance with such request, order or direction.

(h) No Responsibility for Investments. In no event shall the Collateral Agent or any Secured Party be liable or responsible for any funds or investments of funds held by any Grantor or any Affiliates thereof.

Section 7.7 Appointment of Co-Collateral Agent. In the event that the Collateral Agent appoints a Co-Collateral Agent, or Co-Collateral Agents, in accordance with the provisions of Section 7.6(a) of this Agreement, such Co-Collateral Agent(s) shall enter into a Co-Collateral Agent Appointment Agreement in a form satisfactory to the Collateral Agent and such Co-Collateral Agent, and upon acceptance of the appointment, such Co-Collateral Agent shall be entitled to all of the rights, privileges, limitations on liability and immunities afforded to and subject to all the duties of the Collateral Agent hereunder, and shall be deemed to be a party to this Agreement for all purposes provided in this Section 7.7, in each case, subject to the specific rights and duties vested in the Co-Collateral Agent pursuant to the Co-Collateral Agent Appointment Agreement and related Security Documents. It is accepted and acknowledged by the parties hereto that any Co-Collateral Agent appointed in accordance with Section 7.6(a) and this Section 7.7 shall be entitled to the payment of its fees and expenses as agreed to by the Issuer, and without limitation of any of the other provisions of this Agreement, shall be deemed to be an indemnified party under Section 8.17 of this Agreement with respect to any liability arising under this Agreement or the other Indenture Documents without need for further act by the Issuer or the Subsidiary Parties.

Section 7.8 Each of the Trustee and the Collateral Agent, whichever is a party to any Account Control Agreement, agrees not to issue a notice of exclusive control or any other instruction under such Account Control Agreement unless an Event of Default has occurred and is continuing.

**ARTICLE VIII
GENERAL PROVISIONS**

Section 8.1 Notice. All notices and other communications provided for herein shall be in writing and shall be delivered by hand or overnight courier service, mailed by certified or registered mail or sent by telecopy, as follows:

(a) if to the Collateral Agent, to it at

U.S. Bank National Association
Corporate Trust Services
One Federal Street, 3rd Floor
Boston, Massachusetts 02110
Attention: Alison Nadeau (Merrimack Pharmaceuticals 2015 Indenture)
Facsimile: (617) 603-6683

(b) if to the Trustee, to it at

U.S. Bank National Association
Corporate Trust Services
One Federal Street, 3rd Floor
Boston, Massachusetts 02110
Attention: Alison Nadeau (Merrimack Pharmaceuticals 2015 Indenture)
Facsimile: (617) 603-6683

(c) if to Grantors, at

Merrimack Pharmaceuticals, Inc.
One Kendall Square, Suite B7201
Cambridge, Massachusetts 02139
Attention: Legal Department
Facsimile: (617) 812-8122

Any party hereto may change its address or facsimile number for notices and other communications hereunder by notice to the other parties hereto (and for this purpose a notice to the Issuer shall be deemed to be a notice to each Grantor). All notices and other communications given to any party hereto in accordance with the provisions of this Agreement shall be deemed to have been given on the date of receipt if delivered by hand or overnight courier service or sent by facsimile or on the date five (5) Business Days after dispatch by certified or registered mail if mailed, in each case delivered, sent or mailed (properly addressed) to such party as provided in this Section 8.1 or in accordance with the latest unrevoked direction from such party given in accordance with this Section 8.1. Notwithstanding the foregoing, notices to the Collateral Agent shall only be effective upon actual receipt.

Section 8.2 Waiver of Notices. Unless otherwise expressly provided herein, each Grantor hereby waives presentment, demand, protest or any notice (to the maximum extent permitted by applicable law) of any kind in connection with this Agreement or any Collateral.

Section 8.3 Limitation on Collateral Agent's and Secured Party's Duty with Respect to the Collateral. The Collateral Agent shall have no obligation to clean-up or otherwise prepare the Collateral for sale. The Collateral Agent and each Secured Party shall use reasonable care with respect to the Collateral in its possession or under its control. Neither the Collateral Agent nor any Secured Party shall have any other duty as to any Collateral in its possession or control or in the possession or control of any agent or nominee of the Collateral Agent or such Secured Party, or any income thereon (other than to account for proceeds therefrom) or as to the preservation of rights against prior parties or any other rights pertaining thereto. To the extent that applicable law imposes duties on the Collateral Agent to exercise remedies in a commercially reasonable manner, and to the extent permitted by applicable law, each Grantor acknowledges and agrees that it would be commercially reasonable for the Collateral Agent (i) to fail to incur expenses deemed significant by the Collateral Agent to prepare Collateral for disposition or otherwise to transform raw material or work in process into finished goods or other finished products for disposition, (ii) to fail to obtain third party consents for access to Collateral to be disposed of, or to obtain or, if not required by other law, to fail to obtain governmental or third party consents for the collection or disposition of Collateral to be collected or disposed of, (iii) to fail to exercise collection remedies against Account Debtors or other Persons obligated on Collateral or to remove Liens on or any adverse claims against Collateral, (iv) to exercise collection remedies against Account Debtors and other Persons obligated on Collateral directly or through the use of collection agencies and other collection specialists, (v) to advertise dispositions of Collateral through publications or media of general circulation, whether or not the Collateral is of a specialized nature, (vi) to contact other Persons, whether or not in the same business as the Grantor, for expressions of interest in acquiring all or any portion of such Collateral, (vii) to hire one or more professional auctioneers to assist in the disposition of Collateral, whether or not the Collateral is of a specialized nature, (viii) to dispose of Collateral by utilizing internet sites that provide for the auction of assets of the types included in the Collateral or that have the reasonable capacity of doing so, or that match buyers and sellers of assets, (ix) to dispose of assets in wholesale rather than retail markets, (x) to disclaim disposition warranties, such as title, possession or quiet enjoyment, (xi) to purchase insurance or credit enhancements to insure the Collateral Agent against risks of loss, collection or disposition of Collateral or to provide to the Collateral Agent a guaranteed return from the collection or disposition of Collateral, or (xii) to the extent deemed appropriate by the Collateral Agent, to obtain the services of other brokers, investment bankers, consultants and other professionals to assist the Collateral Agent in the collection or disposition of any of the Collateral. Each Grantor acknowledges that the purpose of this Section 8.3 is to provide non-exhaustive indications of what actions or omissions by the Collateral Agent would be commercially reasonable in the Collateral Agent's exercise of remedies against the Collateral and that other actions or omissions by the Collateral Agent shall not be deemed commercially unreasonable solely on account of not being indicated in this Section 8.3. Without limitation upon the foregoing, nothing contained in this Section 8.3 shall be construed to grant any rights to any Grantor or to impose any duties on the Collateral Agent that would not have been granted or imposed by this Agreement or by applicable law in the absence of this Section 8.3.

Section 8.4 Compromises and Collection of Collateral. Each Grantor and the Collateral Agent recognize that setoffs, counterclaims, defenses and other claims may be asserted by obligors with respect to certain of the Accounts, that certain of the Accounts may be or become uncollectible in whole or in part and that the expense and probability of success in

litigating a disputed Account may exceed the amount that reasonably may be expected to be recovered with respect to an Account. In view of the foregoing, each Grantor agrees that the Collateral Agent may at any time and from time to time if an Event of Default has occurred and is continuing, (provided that if such Account constitutes ABL First Lien Collateral only so long as no Senior Liens are outstanding in on such Collateral), compromise with the obligor on any Account, accept in full payment of any Account such amount as the Collateral Agent in its sole discretion shall determine or abandon any Account, and any such action by the Collateral Agent shall be commercially reasonable so long as the Collateral Agent acts in good faith based on information known to it at the time it takes any such action.

Section 8.5 Specific Performance of Certain Covenants. Each Grantor acknowledges and agrees that a breach of any of the covenants contained in Sections 4.2(a), 4.5, 4.6, 4.7, 4.8, 4.10, 4.12, 5.1(j), 7.6, 8.11, 8.17 and 8.18, will cause irreparable injury to the Collateral Agent and the other Secured Parties, that the Collateral Agent and the other Secured Parties have no adequate remedy at law in respect of such breaches and therefore agrees, without limiting the right of the Collateral Agent or the other Secured Parties to seek and obtain specific performance of other obligations of any Grantor contained in this Agreement, that the covenants of such Grantor contained in the Sections referred to in this Section 8.5 shall be specifically enforceable against such Grantor.

Section 8.6 Cumulative Remedies; No Prior Recourse to Collateral. The enumeration herein of the Collateral Agent's and the Trustee's rights and remedies is not intended to be exclusive, and such rights and remedies are in addition to and not by way of limitation of any other rights or remedies that the Collateral Agent and the Trustee may have under the UCC, other applicable law or the Indenture Documents. The Collateral Agent and the Trustee shall have the right, in their sole discretion, to determine which rights and remedies are to be exercised and in which order. The exercise of one right or remedy shall not preclude the exercise of any others, all of which shall be cumulative. The Collateral Agent and the Trustee may, without limitation, proceed directly against any Person liable therefor to collect the Obligations without any prior recourse to the Collateral. No failure to exercise and no delay in exercising, on the part of the Collateral Agent or the Trustee, any right, remedy, power, or privilege hereunder, shall operate as a waiver thereof, nor shall any single or partial exercise of any right, remedy, power, or privilege hereunder preclude any other or further exercise thereof or the exercise of any other right, remedy, power, or privilege.

Section 8.7 Limitation by Law; Severability of Provisions. All rights, remedies and powers provided in this Agreement may be exercised only to the extent that the exercise thereof does not violate any applicable provision of law, and all the provisions of this Agreement are intended to be subject to all applicable mandatory provisions of law that may be controlling and to be limited to the extent necessary so that they shall not render this Agreement invalid, unenforceable or not entitled to be recorded or registered, in whole or in part. The illegality or unenforceability of any provision of this Agreement or any instrument or agreement required hereunder shall not in any way affect or impair the legality or enforceability of the remaining provisions of this Agreement or any instrument or agreement required hereunder.

Section 8.8 Reinstatement. This Agreement shall remain in full force and effect and continue to be effective should any petition be filed by or against any Grantor for liquidation or reorganization, should any Grantor become insolvent or make an assignment for the benefit of any creditor or creditors or should a receiver or trustee be appointed for all or any significant part of such Grantor's assets. This Agreement shall continue to be effective or be reinstated, as the case may be, if at any time when there is or has been more than one Grantor payment and performance of the Obligations, or any part thereof, is, pursuant to applicable law, rescinded or reduced in amount, or must otherwise be restored or returned by any obligee of the Obligations, whether as a "voidable preference," "fraudulent conveyance," or otherwise, all as though such payment or performance had not been made. In the event that any such payment, or any part thereof, is rescinded, reduced, restored or returned, the Obligations shall be reinstated and deemed reduced only by such amount paid and not so rescinded, reduced, restored or returned.

Section 8.9 Binding Effect. The provisions of this Agreement shall be binding upon and inure to the benefit of the respective representatives, successors, and permitted assigns of the parties hereto; provided, however, no Grantor shall assign or delegate any of its rights or duties hereunder without the prior written consent of the Collateral Agent and the Trustee (other than pursuant to a transaction permitted under the Indenture), and any attempted assignment without such consent shall be null and void. The rights and benefits of the Collateral Agent and the Trustee hereunder shall, if such Persons so agree, inure to any party acquiring any interest in the Obligations or any part thereof in accordance with the terms hereof or of the Indenture.

Section 8.10 Survival of Representations. All representations and warranties made by the Grantors in the Indenture Documents and in the certificates or other instruments prepared or delivered in connection with or pursuant to this Agreement or any other Indenture Document shall be considered to have been relied upon by the Secured Parties and shall survive the execution and delivery of the Indenture Documents and the purchase of the Securities by the Purchasers, regardless of any investigation made by any Secured Party or on its behalf and notwithstanding that the Collateral Agent, the Trustee or any other Secured Party may have had notice or knowledge of any Default or incorrect representation or warranty. Notwithstanding anything to the contrary set forth herein, the provisions of Section 8.17 and 8.18 shall survive and remain in full force and effect regardless of the consummation of the transactions contemplated hereby, the repayment of the Securities or the termination of this Agreement or any other Indenture Document.

Section 8.11 Guaranties; Third Party Joinder. Promptly upon creation or acquisition of any Subsidiary of a Grantor, such Grantor shall, to the extent required pursuant to the terms of the Indenture, cause such new Subsidiary to become a Grantor by executing and delivering to the Collateral Agent such an instrument in the form of Exhibit H hereto and other instruments, certificates, and agreements as the Collateral Agent may reasonably request. Upon execution and delivery of such instruments, certificates, and agreements, such newly created or acquired Subsidiary shall automatically become a Grantor and thereupon shall have all of the rights, benefits, duties, and obligations of a Grantor under the Indenture Documents.

Section 8.12 Captions. The captions contained in this Agreement are for convenience of reference only, are without substantive meaning and should not be construed to modify, enlarge, or restrict any provision.

Section 8.13 Termination and Release. This Agreement and the security interests granted hereby shall terminate in accordance with the Indenture and each Intercreditor Agreement (if any).

Section 8.14 Entire Agreement. This Agreement, together with the other Indenture Documents embodies the entire agreement and understanding between each Grantor and the Collateral Agent relating to the Collateral and supersedes all prior agreements and understandings between any Grantor and the Collateral Agent relating to the Collateral.

Section 8.15 Governing Law; Jurisdiction; Consent to Service of Process.

(a) THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK, WITHOUT REGARD TO PRINCIPLES OF CONFLICTS OF LAW (OTHER THAN SECTIONS 5-1401 AND 5-1402 OF THE NEW YORK GENERAL OBLIGATIONS LAW), EXCEPT TO THE EXTENT THAT LOCAL LAW GOVERNS THE CREATION, PERFECTION, PRIORITY OR ENFORCEMENT OF SECURITY INTERESTS.

(b) EACH PARTY HERETO HEREBY SUBMITS TO THE NON-EXCLUSIVE JURISDICTION OF THE FEDERAL AND STATE COURTS OF COMPETENT JURISDICTION IN THE BOROUGH OF MANHATTAN IN THE CITY OF NEW YORK IN ANY SUIT OR PROCEEDING ARISING OUT OF OR RELATING TO THIS INDENTURE OR THE TRANSACTIONS CONTEMPLATED HEREBY. EACH PARTY TO THIS AGREEMENT IRREVOCABLY CONSENTS TO SERVICE OF PROCESS IN THE MANNER PROVIDED FOR NOTICES IN SECTION 8.1. NOTHING IN THIS AGREEMENT WILL AFFECT THE RIGHT OF ANY PARTY TO THIS AGREEMENT TO SERVE PROCESS IN ANY OTHER MANNER PERMITTED BY LAW.

Section 8.16 Waiver of Jury Trial. EACH PARTY HERETO HEREBY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN ANY LEGAL PROCEEDING DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THIS AGREEMENT. EACH PARTY HERETO (A) CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF ANY OTHER PARTY HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PARTY WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND (B) ACKNOWLEDGES THAT IT AND THE OTHER PARTIES HERETO HAVE BEEN INDUCED TO ENTER INTO THIS AGREEMENT BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION.

Section 8.17 Indemnity. EACH GRANTOR AGREES, JOINTLY AND SEVERALLY, TO DEFEND, INDEMNIFY, AND HOLD THE COLLATERAL AGENT, THE TRUSTEE AND EACH OF THEIR RELATED PERSONS (EACH, AN "INDEMNIFIED PERSON") HARMLESS FROM AND AGAINST ANY AND ALL LIABILITIES, OBLIGATIONS, LOSSES, DAMAGES, PENALTIES, ACTIONS, JUDGMENTS, SUITS, COSTS, CHARGES, EXPENSES, AND DISBURSEMENTS (INCLUDING ATTORNEY COSTS) OF ANY KIND OR NATURE WHATSOEVER WHICH MAY AT ANY TIME

(INCLUDING AT ANY TIME FOLLOWING THE TERMINATION, RESIGNATION, OR REPLACEMENT OF THE COLLATERAL AGENT OR THE TRUSTEE) BE IMPOSED ON, INCURRED BY, OR ASSERTED AGAINST ANY SUCH PERSON IN ANY WAY RELATING TO OR ARISING OUT OF THIS AGREEMENT, THE INDENTURE OR ANY OTHER INDENTURE DOCUMENT OR ANY DOCUMENT CONTEMPLATED BY OR REFERRED TO HEREIN OR THEREIN, OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY, OR ANY ACTION TAKEN OR OMITTED BY ANY SUCH PERSON UNDER OR IN CONNECTION WITH ANY OF THE FOREGOING, INCLUDING WITH RESPECT TO ANY INVESTIGATION, LITIGATION, OR PROCEEDING (INCLUDING ANY INSOLVENCY PROCEEDING OR APPELLATE PROCEEDING) RELATED TO OR ARISING OUT OF THIS AGREEMENT, THE INDENTURE, ANY OTHER INDENTURE DOCUMENT, OR THE SECURITIES OR THE USE OF THE PROCEEDS THEREOF, WHETHER OR NOT ANY INDEMNIFIED PERSON IS A PARTY THERETO INCLUDING ANY SUCH LIABILITIES, OBLIGATIONS, LOSSES, DAMAGES, PENALTIES, ACTIONS, JUDGMENTS, SUITS, COSTS, CHARGES, EXPENSES AND REIMBURSEMENTS RESULTING FROM THE NEGLIGENCE OF SUCH INDEMNIFIED PERSON (ALL THE FOREGOING, COLLECTIVELY, THE "INDEMNIFIED LIABILITIES"); PROVIDED THAT THE GRANTORS SHALL HAVE NO OBLIGATION HEREUNDER TO ANY INDEMNIFIED PERSON WITH RESPECT TO INDEMNIFIED LIABILITIES TO THE EXTENT SUCH INDEMNIFIED LIABILITIES RESULT PRIMARILY FROM THE GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF SUCH INDEMNIFIED PERSON OR ITS RESPECTIVE AFFILIATES, AS FINALLY DETERMINED BY A COURT OF COMPETENT JURISDICTION. THE AGREEMENTS IN THIS SECTION 8.17 SHALL SURVIVE PAYMENT OF ALL OTHER OBLIGATIONS AND ANY TERMINATION OR EXPIRATION OF THIS AGREEMENT OR ANY OTHER INDENTURE DOCUMENT.

Section 8.18 Limitation of Liability. NO CLAIM MAY BE MADE BY ANY GRANTOR OR OTHER PERSON AGAINST THE COLLATERAL AGENT, THE TRUSTEE, OR THE AFFILIATES, DIRECTORS, OFFICERS, EMPLOYEES, OR AGENTS OR THEIR RESPECTIVE RELATED PERSONS OF ANY OF THEM FOR ANY SPECIAL, INDIRECT, CONSEQUENTIAL, OR PUNITIVE DAMAGES IN RESPECT OF ANY CLAIM FOR BREACH OF CONTRACT OR ANY OTHER THEORY OF LIABILITY ARISING OUT OF OR RELATED TO THE TRANSACTIONS CONTEMPLATED BY THIS AGREEMENT, THE INDENTURE OR ANY OTHER INDENTURE DOCUMENT, OR ANY ACT, OMISSION, OR EVENT OCCURRING IN CONNECTION THEREWITH, AND EACH GRANTOR HEREBY IRREVOCABLY WAIVES, RELEASES, AND AGREES NOT TO SUE UPON OR BRING IN ANY JUDICIAL, ARBITRAL OR ADMINISTRATIVE FORUM ANY CLAIM FOR SUCH DAMAGES, WHETHER OR NOT ACCRUED AND WHETHER OR NOT KNOWN OR SUSPECTED TO EXIST IN ITS FAVOR. THE AGREEMENTS IN THIS SECTION 8.18 SHALL SURVIVE PAYMENT OF ALL OTHER OBLIGATIONS AND ANY TERMINATION OR EXPIRATION OF THIS AGREEMENT OR ANY OTHER INDENTURE DOCUMENT.

Section 8.19 Counterparts. This Agreement may be executed in any number of counterparts, all of which taken together shall constitute one agreement, and any of the parties hereto may execute this Agreement by signing any such counterpart, and a telecopy of any such counterpart shall be valid as an original. Execution by electronic or PDF signature shall be as effective as manual signature hereof.

Section 8.20 Amendments. Other than as permitted pursuant to each Intercreditor Agreement (if any) or the Indenture, neither this Agreement nor any provision hereof may be waived, amended or modified except pursuant to an agreement or agreements in writing entered into by the Collateral Agent, the Trustee and the Grantor or Grantors with respect to which such waiver, amendment or modification is to apply, subject to any consent that may be required in accordance with Section 9.02 of the Indenture.

Section 8.21 Intercreditor Agreement Governs. (a) Notwithstanding any other provision contained herein, this Agreement, the Liens created hereby and the rights, remedies, duties and obligations provided for herein are subject in all respects to the provisions of each Intercreditor Agreement (if any) and, to the extent provided therein, the applicable Senior Security Documents (as defined in each applicable Intercreditor Agreement). In the event of any conflict or inconsistency between the provisions of this Agreement and any Intercreditor Agreement, the provisions of applicable Intercreditor Agreement shall control.

(b) Notwithstanding anything to the contrary herein, in any Indenture Document or any ABL Document (as such term is defined in each Intercreditor Agreement (if any)), the Grantors shall not be required to act or refrain from acting (a) pursuant to any Indenture Document solely with respect to any ABL First Lien Collateral in any manner that would cause a default under any ABL Document, or (b) pursuant to any ABL Document solely with respect to any Noteholder First Lien Collateral in any manner that would cause a default under any Indenture Document. For avoidance of doubt and for the purposes of this paragraph only, the terms Indenture Document and ABL Document do not include any Intercreditor Agreement.

Section 8.22 Incorporation by Reference. It is expressly understood and agreed that U.S. Bank National Association is entering into this Agreement solely in its capacity as Collateral Agent as appointed pursuant to the Indenture, and shall be entitled to all of the rights, privileges, immunities and protections under the Indenture as if such rights, privileges, immunities and protections were set forth herein.

Section 8.23 English Language. This Agreement and each other Indenture Document has been negotiated and executed in English. All certificates, reports, notices and other documents and communications given or delivered by any party hereto pursuant to this Agreement or any other Indenture Document shall be in English or, if not in English, accompanied by a certified English translation thereof. The English version of any such document shall control the meaning of the matters set forth herein.

[Signature Page Follows]

IN WITNESS WHEREOF, the Issuer, the Trustee and the Collateral Agent have executed this Agreement as of the date first above written.

MERRIMACK PHARMACEUTICALS, INC.

By: /s/ Yasir B. Al-Wakeel

Name: Yasir B. Al-Wakeel

Title: Chief Financial Officer and Head of Corporate
Development

Signature page to Collateral Agreement

U.S. BANK NATIONAL ASSOCIATION, as Collateral Agent

By: /s/ Alison D.B. Nadeau
Name: Alison D.B. Nadeau
Title: Vice President

U.S. BANK NATIONAL ASSOCIATION, as Trustee

By: /s/ Alison D.B. Nadeau
Name: Alison D.B. Nadeau
Title: Vice President

Signature page to Collateral Agreement

EXHIBIT A
(See Sections 3.2, 3.3 and 4.1 of Agreement)

GRANTORS' INFORMATION AND COLLATERAL LOCATIONS

MERRIMACK PHARMACEUTICALS, INC., a Delaware corporation

Locations of certain Collateral

Address	County	State
One Kendall Square, Suite B7201 Cambridge, Massachusetts 02139 (also the location of books and records)	Middlesex	Massachusetts
*	N/A	Korea
*	San Diego	California
*	Lehigh	Pennsylvania
*	Bullitt	Kentucky

* Non-Grantor location. Facility is owned/leased by the indicated business.

EXHIBIT B
(See Section 3.6 of Agreement)

PROPRIETARY RIGHTS

[See attached.]

EXHIBIT C
(See Section 3.8 of Agreement)

COMMERCIAL TORT CLAIMS

None.

EXHIBIT D
(See Section 3.7 of Agreement)

LIST OF INVESTMENT PROPERTY

	Description of Investment Property	Certificate or Account Number
Crane Therapeutics, Inc.	100% issued and outstanding shares	Certificate Number 1; 10,000 ordinary shares
UBS Financial Services Inc.	Money market account	1

¹ Please refer to the footnote related to this account on Exhibit J.

EXHIBIT E
(See Section 3.1 of Agreement)

Delaware Secretary of State, Division of Corporations

EXHIBIT F
(See Section 4.2 of Agreement)

AMENDMENT

This Amendment, dated [,] is delivered pursuant to Section 4.2 of the Agreement as defined below. All defined terms herein shall have the meanings ascribed thereto or incorporated by reference in the Agreement. The undersigned further agrees that this Amendment may be attached to that certain Collateral Agreement, dated as of December 22, 2015, between the undersigned, as the Grantors, U.S. Bank National Association, as the Trustee, and U.S. Bank National Association, as the Collateral Agent (the "Agreement") and that the Collateral consisting of Commercial Tort Claims listed on Schedule I to this Amendment shall be and become a part of the Collateral referred to in said Agreement and shall secure all Obligations referred to in said Agreement.

Notwithstanding any other provision contained herein, the Agreement, the Liens created thereby and the rights, remedies, duties and obligations provided for therein and herein are subject in all respects to the provisions of each Intercreditor Agreement (if any) and, to the extent provided therein, the applicable Senior Security Documents (as defined in the applicable Intercreditor Agreement). In the event of any conflict or inconsistency between the provisions of the Agreement, this Supplement and any Intercreditor Agreement, the provisions of the applicable Intercreditor Agreement shall control.

Notwithstanding anything to the contrary herein, in any Indenture Document or any ABL Document (as such term is defined in each Intercreditor Agreement (if any)), the Grantors shall not be required to act or refrain from acting (a) pursuant to any Indenture Document solely with respect to any ABL First Lien Collateral in any manner that would cause a default under any ABL Document, or (b) pursuant to any ABL Document solely with respect to any Noteholder First Lien Collateral in any manner that would cause a default under any Indenture Document. For avoidance of doubt and for the purposes of this paragraph only, the terms Indenture Document and ABL Document do not include any Intercreditor Agreement.

By: _____
Name: _____
Title: _____

SCHEDULE I TO AMENDMENT

[Include description of tort claims with particularity]

EXHIBIT G

FORM OF PERFECTION CERTIFICATE

[See attached.]

EXHIBIT H

SUPPLEMENT NO. [] dated as of [,] (this "Supplement"), to the Collateral Agreement dated as of December 22, 2015 (the "Agreement"), among MERRIMACK PHARMACEUTICALS, INC., a Delaware corporation with an address at One Kendall Square, Suite B7201, Cambridge, Massachusetts 02139 (the "Issuer"), each Subsidiary of the Issuer party from time to time thereto (each such subsidiary individually a "Subsidiary Party" and collectively, the "Subsidiary Parties"; the Subsidiary Parties are referred to collectively herein as the "Grantors"), U.S. BANK NATIONAL ASSOCIATION, as trustee (and its successors under the Indenture (as defined below), in such capacity, the "Trustee"), and U.S. BANK NATIONAL ASSOCIATION, as collateral agent for the Secured Parties (and its successors under the Indenture, in such capacity, the "Collateral Agent").

WHEREAS pursuant to the terms of (a) the Indenture dated as of December 22, 2015 (as amended, restated, supplemented or otherwise modified from time to time, the "Indenture"), among the Issuer, the Subsidiary Parties and the Trustee, (b) each Purchase Agreement dated December 22, 2015 (collectively, the "Purchase Agreement"), among the Issuer, the Subsidiary Parties, each purchaser party thereto (collectively, the "Purchasers"), the Issuer issued the Securities (as defined in the Indenture), which may be guaranteed on a senior secured basis by each of the Subsidiary Parties;

WHEREAS, the Indenture permits the Issuer and the Subsidiary Parties to grant a lien and security interest in the ABL First Lien Collateral (as defined in the Agreement) to one or more ABL Collateral Agents (as defined in the Agreement) and the holders of First Priority Lien Obligations (as defined in the Agreement);

WHEREAS the Issuer, the Subsidiary Parties, the Collateral Agent, the Co-Collateral Agent (if applicable), the Trustee and the other parties party thereto may enter into one or more Lien Subordination and Intercreditor Agreement from time to time (as such agreements may be amended, extended, renewed, restated, supplemented, waived or otherwise modified from time to time, each an "Intercreditor Agreement"), which will govern the liens upon and security interests in the Collateral granted by the Agreement and the First Priority Lien Obligations;

WHEREAS each Grantor executed and delivered the Agreement, pursuant to the terms of the Indenture to induce the Trustee to enter into the Indenture and, pursuant to the terms of the Purchase Agreement, to induce the Purchasers to purchase the Securities; and

WHEREAS Section 8.11 of the Agreement and Section 4.10 of the Indenture provide that additional Wholly Owned Restricted Subsidiaries of the Issuer shall become Subsidiary Parties under the Agreement by execution and delivery of an instrument in the form of this Supplement. The undersigned Subsidiary (the "New Subsidiary") is executing this Supplement in accordance with the requirements of the Indenture Documents to become a Subsidiary Party under the Agreement. Capitalized terms used herein and not otherwise defined herein shall have the meanings assigned to such terms in the Indenture and the Agreement.

Accordingly, the Collateral Agent and the New Subsidiary agree as follows:

SECTION 1. In accordance with Section 8.11 of the Agreement, the New Subsidiary by its signature below becomes a Subsidiary Party and a Grantor under the Agreement with the same force and effect as if originally named therein as a Subsidiary Party and the New Subsidiary hereby expressly assumes, and hereby agrees to perform and observe, each and every one of the covenants, rights promises, agreements, terms, conditions, obligations, appointments, duties and liabilities applicable to it as a Subsidiary Party and Grantor thereunder and all other Indenture Documents applicable to it as a Subsidiary Party and Grantor under the Agreement. By virtue of the foregoing, the New Subsidiary hereby accepts and assumes any liability of a Grantor (as to itself only) related to each representation, warranty, covenant or obligation made by a Grantor (as to itself only) in the Agreement and hereby expressly affirms, as of the date hereof, each of such representations, warranties, covenants and obligations. In furtherance of the foregoing, the New Subsidiary, as security for the payment and performance in full of the Obligations, does hereby create and grant to the Collateral Agent, its successors and assigns, for the benefit of the Secured Parties, their successors and assigns, a security interest in and Lien on all of the New Subsidiary's right, title and interest in and to the Collateral of the New Subsidiary. Each reference to a "Grantor" in the Agreement shall be deemed to include the New Subsidiary. The Agreement is hereby incorporated herein by reference.

SECTION 2. The New Subsidiary represents and warrants to the Collateral Agent and the other Secured Parties that (a) the New Subsidiary has the requisite [corporate, partnership or company] power and authority to enter into and perform its obligations under this Supplement and that this Supplement has been duly authorized, executed and delivered by it and constitutes its legal, valid and binding obligation, enforceable against it in accordance with its terms, (b) the representations and warranties set forth in the Agreement are true and correct in all material respects on and as of the date hereof as such representations and warranties apply to the New Subsidiary (except to the extent that any such representations and warranties expressly relate to an earlier date) with the same force and effect as if made on the date hereof and (c) as of the date hereof, the New Subsidiary is "located" (as such term is used in Article 9-307 of the UCC) in the state of [Delaware].

SECTION 3. This Supplement may be executed in counterparts (and by different parties hereto on different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. This Supplement shall become effective when the Collateral Agent shall have received a counterpart of this Supplement that bears the signature of the New Subsidiary and the Collateral Agent has executed a counterpart hereof. Delivery of an executed signature page to this Supplement by facsimile transmission or by email shall be as effective as delivery of a manually signed counterpart of this Supplement.

SECTION 4. The New Subsidiary hereby represents and warrants that set forth on Schedule I attached hereto is a copy of a fully completed Perfection Certificate executed by the New Subsidiary. The information contained in the Perfection Certificate delivered by the New Subsidiary is correct and complete in all material respects as of the date hereof.

SECTION 5. Except as expressly supplemented hereby, the Agreement shall remain in full force and effect.

SECTION 6. THIS SUPPLEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK, WITHOUT REGARD TO PRINCIPLES OF CONFLICTS OF LAW (OTHER THAN SECTIONS 5-1401 AND 5-1402 OF THE NEW YORK GENERAL OBLIGATIONS LAW), EXCEPT TO THE EXTENT THAT LOCAL LAW GOVERNS THE CREATION, PERFECTION, PRIORITY OR ENFORCEMENT OF SECURITY INTERESTS.

SECTION 7. In case any one or more of the provisions contained in this Supplement should be held invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions contained herein and in the Agreement shall not in any way be affected or impaired thereby (it being understood that the invalidity of a particular provision in a particular jurisdiction shall not in and of itself affect the validity of such provision in any other jurisdiction). The parties hereto shall endeavor in good-faith negotiations to replace the invalid, illegal or unenforceable provisions with valid provisions the economic effect of which comes as close as possible to that of the invalid, illegal or unenforceable provisions.

SECTION 8. All communications and notices hereunder shall be in writing and given as provided in Section 8.1 of the Agreement.

SECTION 9. The New Subsidiary agrees to reimburse the Collateral Agent for its reasonable out-of-pocket expenses in connection with this Supplement, including the reasonable fees, other charges and disbursements of counsel for the Collateral Agent.

SECTION 10. Notwithstanding any other provision contained herein, the Agreement, the Liens created thereby and the rights, remedies, duties and obligations provided for therein and herein are subject in all respects to the provisions of each Intercreditor Agreement (if any) and, to the extent provided therein, the applicable Senior Security Documents (as defined in the applicable Intercreditor Agreement). In the event of any conflict or inconsistency between the provisions of the Agreement, this Supplement and any Intercreditor Agreement, the provisions of the applicable Intercreditor Agreement shall control.

SECTION 11. It is expressly understood and agreed that U.S. Bank National Association is entering into this Supplement solely in its capacity as Collateral Agent as appointed pursuant to the Indenture, and shall be entitled to all of the rights, privileges, immunities and protections under the Indenture as if such rights, privileges, immunities and protections were set forth herein.

SECTION 12. Notwithstanding anything to the contrary herein, in any Indenture Document or any ABL Document (as such term is defined in each Intercreditor Agreement (if any)), the Grantors shall not be required to act or refrain from acting (a) pursuant to any Indenture Document solely with respect to any ABL First Lien Collateral in any manner that would cause a default under any ABL Document, or (b) pursuant to any ABL Document solely with respect to any Noteholder First Lien Collateral in any manner that would cause a default under any Indenture Document. For avoidance of doubt and for the purposes of this paragraph only, the terms Indenture Document and ABL Document do not include any Intercreditor Agreement.

IN WITNESS WHEREOF, the New Subsidiary and the Collateral Agent have duly executed this Supplement to the Agreement as of the day and year first above written.

[NAME OF NEW SUBSIDIARY]

by _____
Name:
Title:
Legal Name:
Jurisdiction of Formation:
Location of Chief Executive office:

U.S. BANK NATIONAL ASSOCIATION, as Collateral Agent

By _____
Name:
Title:

PERFECTION CERTIFICATE

EXHIBIT I
(see Sections 3.11 of Agreement)

LEASED PROPERTY

Personal property leases for office copiers.

EXHIBIT J
(see Section 3.9 of Agreement)

BANK ACCOUNTS AND RELATED ITEMS

MERRIMACK PHARMACEUTICALS, INC.

<u>Name of Institution</u>	<u>Bank Address</u>	<u>Type of Account</u>	<u>Acct. No.</u>
Cambridge Savings Bank	1378 Cambridge St. Cambridge, MA 02139	Checking	
Cambridge Savings Bank	1378 Cambridge St. Cambridge, MA 02139	Checking	
Cambridge Savings Bank	1378 Cambridge St. Cambridge, MA 02139	Savings	
Cambridge Savings Bank	1378 Cambridge St. Cambridge, MA 02139	Savings	
Cambridge Savings Bank	1378 Cambridge St. Cambridge, MA 02139	Checking	
Cambridge Savings Bank	1378 Cambridge St. Cambridge, MA 02139	Savings	
UBS Financial Services Inc.	One North Wacker Dr, 25th & 26th Floor Chicago, IL 60606-2807	Money Market	2

² The Issuer agrees that, on or promptly following the Effective Date (and in no event later than ten (10) Business Days thereafter), the Issuer shall liquidate the investments credited to this account and transfer funds from such liquidation or otherwise credited to this account to a deposit account that is subject to an Account Control Agreement or to a new deposit account or securities account that is subject to Control in accordance with Section 4.1(c).

EXHIBIT K
(see Section 3.12 of Agreement)

TRADE NAMES

None.



Merrimack Announces Private Placement of \$175 Million of Senior Secured Notes

CAMBRIDGE, Mass., December 22, 2015 (PR Newswire) – Merrimack Pharmaceuticals, Inc. (Nasdaq: MACK) announced today the closing of a private placement of \$175 million in aggregate principal amount of its senior secured notes due 2022 (the “Notes”). The Notes were sold only to qualified institutional buyers within the meaning of Rule 144A under the Securities Act of 1933, as amended (the “Securities Act”). The Notes were sold at a price equal to 100% of the principal amount of the Notes. The Notes are senior secured obligations of Merrimack and will mature on December 15, 2022, unless earlier redeemed or repurchased in accordance with their terms prior to such date. The Notes bear interest at a rate of 11.5% per year, payable semi-annually.

Merrimack intends to use a portion of the net proceeds to repay all outstanding obligations under its loan and security agreement, as amended, with Hercules Technology Growth Capital, Inc. Merrimack intends to use the remaining net proceeds for working capital and other general corporate purposes.

“We are pleased this transaction has enhanced our cash position and will allow us to independently pursue the potential registration opportunity for MM-121 in non-small cell lung cancer announced today,” said Robert Mulroy, Merrimack President and CEO. “The funds from this transaction will support the late stage development of MM-302 and MM-121 as they progress towards potential registration opportunities, continued investment in ONIVYDE™ and general corporate purposes.”

For more information regarding the terms and conditions of the Notes, please refer to the Current Report on Form 8-K filed today by Merrimack with the Securities and Exchange Commission.

Morgan Stanley & Co. LLC acted as sole placement agent for the transaction.

This press release does not constitute an offer to sell, or the solicitation of an offer to buy, any of these securities. The Notes have not been and will not be registered under the Securities Act or the securities laws of any other jurisdiction and may not be offered or sold in the United States without registration or an applicable exemption from registration requirements.

About Merrimack

Merrimack is a fully integrated biopharmaceutical company that views cancer as a complex engineering challenge. Through systems biology, which brings together the fields of biology, computing and engineering, Merrimack aims to decrease uncertainty in drug development and clinical validation, and move discovery efforts beyond trial and error. Such an approach has the potential to make individualized treatment of patients a reality. Merrimack’s first commercial product, ONIVYDE™ (irinotecan liposome injection), was approved by the U.S. FDA on October 22, 2015. With four additional candidates in clinical studies, several in preclinical development and multiple biomarkers designed to support patient selection, Merrimack is building one of the most robust oncology pipelines in the industry.

Cautionary Note on Forward-Looking Statements

To the extent that statements contained in this press release are not descriptions of historical facts, they are forward-looking statements reflecting the current beliefs and expectations of management made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, as amended. Forward-looking statements include any statements about Merrimack’s strategy, future operations, future financial position, future revenues and future expectations and plans and prospects for Merrimack, and any other statements containing the words “anticipate,” “believe,” “estimate,” “expect,” “intend,” “may,” “plan,” “predict,” “project,” “target,” “potential,” “will,” “would,” “could,” “should,” “continue,” and similar expressions. In this press release, Merrimack’s forward-looking statements include, among others, statements about Merrimack’s intended use of the net proceeds of the private placement. Such forward-looking statements involve substantial risks and uncertainties that could cause Merrimack’s clinical development programs, future results, performance or achievements to differ significantly from those expressed or implied by the forward-looking statements. Merrimack undertakes no obligation to update or revise any forward-looking statements. Forward-looking statements should not be relied upon as representing Merrimack’s views as of any date subsequent to the date hereof. For a further description of the risks and uncertainties that could cause actual results to differ from those expressed in these forward-looking statements, as well as risks relating to Merrimack’s business in general, see the “Risk Factors” section of Merrimack’s Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission (“SEC”) on November 9, 2015 and other reports Merrimack files with the SEC.

CONTACT:

Investor Contact:

Geoffrey M. Grande, CFA

Merrimack

617-441-7602

ggrande@merrimack.com

Media Contact:

Dana Robie

Merrimack

617-441-7408

drobie@merrimack.com