

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

FORM 8-K

CURRENT REPORT

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

Date of Report (Date of earliest event reported): **November 8, 2012**

Merrimack Pharmaceuticals, Inc.

(Exact Name of Registrant as Specified in its 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 November 8, 2012, Merrimack Pharmaceuticals, Inc. (the "Company") entered into a Loan and Security Agreement (the "Loan Agreement") with Hercules Technology Growth Capital, Inc. ("Hercules") pursuant to which a term loan of up to an aggregate principal amount of \$40.0 million is available to the Company. The Loan Agreement provides for an initial term loan advance of \$25.0 million, which closed on November 8, 2012, and an additional term loan advance of up to \$15.0 million, which is available at any time through December 15, 2012 upon the Company's request.

The term loan bears interest at an annual rate equal to the greater of 10.55% and 10.55% plus the prime rate of interest minus 5.25%, but may not exceed 12.55%. The Loan Agreement provides for interest-only payments for twelve months and repayment of the aggregate outstanding principal balance of the loan in monthly installments starting on December 1, 2013 and continuing through May 1, 2016. If the Company receives aggregate gross proceeds of at least \$75 million in one or more transactions prior to December 1, 2013, including pursuant to a financing or collaboration, the Company may elect to extend the interest-only period by six months so that the aggregate outstanding principal balance of the loan would be repaid in monthly installments starting on June 1, 2014 and continuing through November 1, 2016. In addition, the Company paid a fee of \$0.3 million upon closing and is required to pay a fee of \$1.2 million at maturity. At the Company's option, the Company may elect to prepay all or any part of the outstanding term loan without penalty.

In connection with the Loan Agreement, the Company granted Hercules a security interest in all of the Company's personal property now owned or hereafter acquired, excluding intellectual property but including the proceeds from the sale, if any, of intellectual property, and a negative pledge on intellectual property. The Loan Agreement also contains certain representations, warranties and non-financial covenants of the Company. In addition, the Loan Agreement grants Hercules an option to purchase up to an aggregate of \$1.0 million of the Company's equity securities sold to institutional accredited investors in a private financing within one year after the closing of the Loan Agreement upon the same terms and conditions afforded to such investors. The Company received net proceeds of \$24.7 million from the initial term loan advance on November 8, 2012.

The foregoing description of the Loan Agreement does not purport to be complete and is qualified in its entirety by reference to the Loan Agreement filed as Exhibit 10.1 to this Current Report on Form 8-K and incorporated herein by reference.

Item 2.02. Results of Operations and Financial Condition.

On November 14, 2012, the Company announced its financial results for the quarter ended September 30, 2012. The full text of the press release issued in connection with the announcement is furnished as Exhibit 99.1 to this Current Report on Form 8-K.

The information in this Item 2.02 (including Exhibit 99.1) shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated

2

by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as expressly set forth by specific reference in such a filing.

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

The information set forth in Item 1.01 of this Current Report on Form 8-K with respect to the Loan Agreement is incorporated by reference into this Item 2.03.

Item 9.01. Financial Statements and Exhibits.

(d) The following exhibits are included in this Current Report on Form 8-K, except that Exhibit 99.1 relating to Item 2.02 shall be deemed to be furnished, and not filed:

- 10.1 Loan and Security Agreement, dated as of November 8, 2012, by and between the Registrant and Hercules Technology Growth Capital, Inc.
- 99.1 Press release issued by the Registrant on November 14, 2012

3

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: November 14, 2012

By: /s/ Jeffrey A. Munsie
Jeffrey A. Munsie
Corporate Counsel and Secretary

4

EXHIBIT INDEX

<u>Exhibit No.</u>	<u>Description</u>
10.1	Loan and Security Agreement, dated as of November 8, 2012, by and between the Registrant and Hercules Technology Growth Capital, Inc.
99.1	Press release issued by the Registrant on November 14, 2012

5

LOAN AND SECURITY AGREEMENT

THIS LOAN AND SECURITY AGREEMENT is made and dated as of November 8, 2012 and is entered into by and between **MERRIMACK PHARMACEUTICALS, INC.**, a Delaware corporation, and each of its Subsidiaries that from time to time becomes a party hereto (hereinafter collectively referred to as the "Borrower"), and **HERCULES TECHNOLOGY GROWTH CAPITAL, INC.**, a Maryland corporation ("Lender").

RECITALS

- A. Borrower has requested Lender to make available to Borrower loans in an aggregate principal amount of up to \$40,000,000 (the "Term Loan"); and
- B. Lender is willing to make the Term Loan on the terms and conditions set forth in this Agreement.

AGREEMENT

NOW, THEREFORE, Borrower and Lender agree as follows:

SECTION 1. DEFINITIONS AND RULES OF CONSTRUCTION

1.1 Unless otherwise defined herein, the following capitalized terms shall have the following meanings:

"Account Control Agreement(s)" means any agreement entered into by and among the Lender, Borrower and a third party Bank or other institution (including a Securities Intermediary) in which Borrower maintains a Deposit Account or an account holding Investment Property and which grants Lender a perfected first priority security interest in the subject account or accounts.

"ACH Authorization" means the ACH Debit Authorization Agreement in substantially the form of Exhibit G.

"Advance(s)" means a Term Advance.

"Advance Date" means the funding date of any Advance.

"Advance Request" means a request for an Advance submitted by Borrower to Lender in substantially the form of Exhibit A.

"Agreement" means this Loan and Security Agreement, as amended from time to time.

"Assignee" has the meaning given to it in Section 11.13.

1

"Borrower Products" means all products, technical data or technology currently being developed, manufactured or sold by Borrower or which Borrower intends to sell, manufacture, license, or distribute in the future including any products or service offerings under development, collectively, together with all products, technical data or technology that have been sold, developed, licensed or distributed by Borrower since its incorporation.

"Cash" means all cash and liquid funds.

"Change in Control" means any (i) reorganization, recapitalization, consolidation or merger (or similar transaction or series of related transactions) of Merrimack in which the holders of Merrimack's outstanding shares immediately before consummation of such transaction or series of related transactions (together with any affiliates of such holders) do not, immediately after consummation of such transaction or series of related transactions, retain shares representing more than fifty percent (50%) of the voting power of the surviving entity of such transaction or series of related transactions (or the parent of such surviving entity if such surviving entity is wholly owned by such parent), in each case without regard to whether Merrimack is the surviving entity, or (ii) sale or issuance by Merrimack of new shares of Preferred Stock of Merrimack to investors, none of whom are current investors in Merrimack (or their affiliates), representing more than fifty percent (50%) of the voting power of the surviving entity (or the parent of such surviving entity if such surviving entity is wholly owned by such parent); provided, however, a bona fide equity financing for the purpose of raising capital from institutional investors reasonably acceptable to Lender, shall not constitute a Change in Control.

"Claims" has the meaning given to it in Section 11.10.

"Closing Date" means the date of this Agreement.

"Collateral" means the property described in Section 3.

"Commitment Fee" means \$60,000, which fee Lender received prior to the Closing Date, and shall be deemed fully earned on such date regardless of the early termination of this Agreement, and which shall be applied to the Lender's non-legal costs and expenses prior to the Closing Date.

"Confidential Information" has the meaning given to it in Section 11.12.

"Contingent Obligation" means, as applied to any Person, any direct or indirect liability, contingent or otherwise, of that Person with respect to (i) any Indebtedness of another, including any such obligation guaranteed, endorsed, co-made or discounted or sold with recourse by that Person, or in respect of which that Person is otherwise directly or indirectly liable; (ii) any obligations with respect to undrawn letters of credit, corporate credit cards or merchant services issued for the account of that Person; and (iii) all obligations arising under any interest rate, currency or commodity swap agreement, interest rate cap agreement, interest rate collar agreement, or other agreement or arrangement designated to protect a Person against fluctuation in interest

rates, currency exchange rates or commodity prices; provided, however, that the term “Contingent Obligation” shall not include endorsements for collection or deposit in the ordinary course of business. The amount of any Contingent Obligation shall be deemed to be an amount

equal to the stated or determined amount of the primary obligation described in clauses (i) and (ii) above in respect of which such Contingent Obligation is made or, if not stated or determinable, the maximum reasonably anticipated liability in respect thereof as determined by such Person in good faith; provided, however, that such amount shall not in any event exceed the maximum amount of the obligations under the guarantee or other support arrangement.

“Copyright License” means any written agreement granting any right to use any Copyright or Copyright registration, now owned or hereafter acquired by Borrower or in which Borrower now holds or hereafter acquires any interest.

“Copyrights” means all copyrights, whether registered or unregistered, held pursuant to the laws of the United States, any State thereof, or of any other country.

“Deposit Accounts” means any “deposit accounts,” as such term is defined in the UCC, and includes any checking account, savings account, or certificate of deposit.

“Equity Event” is the sale or issuance, after the Closing Date but before the first anniversary of the Closing Date, of Merrimack’s equity securities to institutional accredited investors in a private financing exempt from registration under the Securities Act of 1933, as amended, for the primary purpose of raising capital; provided that in no event shall the issuance of equity securities in connection with a transaction that includes a commercial relationship (including joint ventures, marketing or distribution arrangements, collaboration agreements or intellectual property license agreements) be considered an Equity Event.

“ERISA” is the Employee Retirement Income Security Act of 1974, and its regulations, as amended and in effect from time to time.

“Event of Default” has the meaning given to it in Section 9.

“Excluded Subsidiary” means any entity, whether corporate, partnership, limited liability company, joint venture or otherwise, which is designated by Merrimack as an “Excluded Subsidiary” on Schedule 1 and from time to time after the Closing Date.

“Facility Charge” means 0.75% of the Maximum Term Loan Amount.

“Financial Statements” has the meaning given to it in Section 7.1.

“GAAP” means generally accepted accounting principles in the United States of America, as in effect from time to time, provided that the parties agree that GAAP as in effect on the date of this Agreement shall be applicable for the interpretation of “capital lease obligations” in the definition of “Indebtedness”, unless the parties otherwise agree in writing.

“Indebtedness” means (a) all indebtedness for borrowed money or the deferred purchase price of property or services (excluding trade credit entered into in the ordinary course of business due within ninety (90) days), including reimbursement and other obligations with respect to surety bonds and letters of credit, (b) all obligations evidenced by notes, bonds,

debentures or similar instruments, (c) all capital lease obligations, and (d) all Contingent Obligations.

“Insolvency Proceeding” is any proceeding by or against any Person under the United States Bankruptcy Code, or any other bankruptcy or insolvency law, including assignments of all or substantially all of a Person’s assets for the benefit of creditors, compositions, extensions generally with its creditors, or proceedings seeking reorganization, arrangement, or other similar relief.

“Intellectual Property” means all of Borrower’s Copyrights; Trademarks; Patents; Licenses; trade secrets, proprietary information (including pre-clinical, clinical and other data) and inventions; mask works; Borrower’s applications therefor and reissues, extensions, or renewals thereof; and Borrower’s goodwill associated with any of the foregoing, together with Borrower’s rights to sue for past, present and future infringement of Intellectual Property and the goodwill associated therewith.

“Interest Rate” means for any day a per annum rate of interest equal to the greater of (i) 10.55% plus the United States Prime Rate as reported in The Wall Street Journal minus 5.25%, and (ii) 10.55%; provided, however, the Interest Rate shall in no case exceed 12.55% per annum.

“Investment” means any beneficial ownership (including stock, partnership or limited liability company interests) of or in any Person, or any loan, advance or capital contribution to any Person or the acquisition of all, or substantially all, of the assets of another Person.

“Joinder Agreements” means for each Subsidiary, a completed and executed Joinder Agreement in substantially the form attached hereto as Exhibit F.

“Lender” has the meaning given to it in the preamble to this Agreement.

“License” means any Copyright License, Patent License, Trademark License or other license of rights or interests from a third party.

“Lien” means any mortgage, deed of trust, pledge, hypothecation, assignment for security, security interest, encumbrance, levy, lien or charge of any kind, whether voluntarily incurred or arising by operation of law or otherwise, against any property, any conditional sale or other title retention agreement, and any lease in the nature of a security interest.

“Loan” means the Advances made under this Agreement.

“Loan Documents” means this Agreement, the Notes, the ACH Authorization, the Account Control Agreements, the Joinder Agreements, all UCC Financing Statements and any other documents executed in connection with the Secured Obligations or the transactions contemplated hereby, as the same may from time to time be amended, modified, supplemented or restated.

4

“Material Adverse Effect” means an occurrence, on or after the date of the last set of audited financials, that has a material adverse effect upon: (i) the business, operations, properties, assets or condition (financial or otherwise) of the Borrower and its Subsidiaries, taken as a whole; (ii) the ability of Borrower to perform the Secured Obligations when due in accordance with the terms of the Loan Documents, or the ability of Lender to enforce any of its rights or remedies with respect to the Secured Obligations; or (iii) the Collateral or Lender’s Liens on the Collateral or the priority of such Liens, in each case, in the aggregate. Notwithstanding the foregoing, a “Material Adverse Effect” shall not include any of the following, each in and of itself: (a) adverse results or delays in any nonclinical or clinical trial, including without limitation the failure to demonstrate the desired safety or efficacy of any biologic or drug; (b) the denial, delay or limitation of approval of, or taking of any other regulatory action by, the United States Food and Drug Administration or any other governmental entity with respect to any biologic or drug; or (c) a change in or discontinuation of a strategic partnership or other collaboration or license arrangement.

“Maturity Date” means May 1, 2016, provided Maturity Date will mean November 1, 2016 if the interest-only period is extended pursuant to Section 2.1(d).

“Maximum Term Loan Amount” means \$40,000,000.

“Maximum Rate” shall have the meaning assigned to such term in Section 2.3.

“Merrimack” means Merrimack Pharmaceuticals, Inc.

“Merrimack Bermuda” means Merrimack Pharmaceuticals (Bermuda) Ltd.

“Note(s)” means a Term Note.

“OCB” means in the ordinary course of business and shall include (i) collaboration or licensing transactions, or options to enter into collaboration or licensing transactions, that are customary in Borrower’s industry, and (ii) arrangements to use Borrower’s manufacturing capabilities to manufacture drug product on behalf of third party pharmaceutical companies.

“Patent License” means any written agreement granting any right with respect to any invention on which a Patent is in existence or a Patent application is pending, in which agreement Borrower now holds or hereafter acquires any interest.

“Patents” means all letters patent of, or rights corresponding thereto, in the United States or in any other country, all registrations and recordings thereof, and all applications for letters patent of, or rights corresponding thereto, in the United States or any other country.

“Permitted Indebtedness” means: (i) Indebtedness of Borrower arising under this Agreement or any other Loan Document; (ii) Indebtedness existing on the Closing Date which is disclosed in Schedule 1A; (iii) Indebtedness in the principal amount of up to \$5,000,000 outstanding at any time secured by a lien described in clause (vii) of the defined term “Permitted Liens”; (iv) Indebtedness to trade creditors incurred in the ordinary course of business, including Indebtedness incurred in the ordinary course of business with corporate credit cards; (v)

5

Indebtedness that also constitutes a Permitted Investment; (vi) Subordinated Indebtedness; (vii) reimbursement obligations in connection with letters of credit that are secured by cash or cash equivalents and issued on behalf of the Borrower or a Subsidiary thereof in an amount not to exceed \$1,000,000 at any time outstanding; (viii) other Indebtedness in an amount not to exceed \$1,000,000 at any time outstanding; (ix) Contingent Obligations of up to \$200,000 described on clause (iii) of the definition of Contingent Obligations entered into to mitigate risk and not for speculative purposes; (x) Indebtedness among Borrowers or of Borrower to any non-Borrower Subsidiary; (xi) extensions, refinancings and renewals of any items of Permitted Indebtedness, provided that the principal amount is not increased or the terms modified to impose materially more burdensome terms upon Borrower or its Subsidiary, as the case may be; and (xii) guarantees of any items of Permitted Indebtedness in clauses (i) through (xi) above.

“Permitted Investment” means: (i) Investments existing on the Closing Date which are disclosed in Schedule 1B; (ii) (a) marketable direct obligations issued or unconditionally guaranteed by the United States of America or any agency or any State thereof maturing within twenty four months from the date of acquisition thereof, (b) commercial paper maturing no more than twenty four months from the date of creation thereof and at the time of the Investment having a rating of at least A-2 or P-2 from either Standard & Poor’s Corporation or Moody’s Investors Service, (c) certificates of deposit issued by any bank with assets of at least \$500,000,000 maturing no more than twenty four months from the date of investment therein, (d) money market accounts; and (e) corporate debt obligations maturing no more than 24 months from the date of acquisition thereof and at the time of investment having a rating of at least A3 or A- from either Standard & Poors or Moody’s Investor Service; (iii) repurchases of stock from former employees, directors, or consultants of Borrower under agreements approved by the Borrower’s board of directors in an aggregate amount not to exceed \$250,000 in any fiscal year, provided that no Event of Default has occurred, is continuing or would exist after giving effect to the repurchases; (iv) Investments accepted in connection with Permitted Transfers; (v) Investments (including debt obligations) received in connection with the bankruptcy or reorganization of customers or suppliers and in settlement of delinquent obligations of, and other disputes with, customers or suppliers arising in the ordinary course of Borrower’s business; (vi) Investments consisting of notes receivable of, or prepaid royalties and other credit extensions, to customers and suppliers who are not affiliates, in the ordinary course of business, provided that this subparagraph (vi) shall not apply to Investments of Borrower in any Subsidiary; (vii) Investments consisting of loans not involving the net transfer on a substantially contemporaneous basis of cash proceeds to employees, officers or directors relating to the purchase of capital stock of Borrower pursuant to employee stock purchase plans or other similar agreements approved by Borrower’s Board of Directors; (viii) Investments consisting of travel

advances or moving expenses in the ordinary course of business; (ix) Investments in existing or newly-formed Subsidiaries, provided that such Subsidiaries enter into a Joinder Agreement and execute such other documents as shall be reasonably requested by Lender in connection therewith; (x) Investments in Excluded Subsidiaries not to exceed \$5,000,000 at any time outstanding, provided that fluctuations in the book value of an Investment based upon non-cash earnings or losses of the applicable Excluded Subsidiary will not be considered in determining such amount, and to the extent that the Borrower has received dividends, distributions or payments in cash from any Excluded Subsidiary in connection with any Investment or has net cash proceeds in connection with the disposition of any Investment, the amount of such cash or net cash proceeds may reduce the

6

amount of Investments under this provision; (xi) Investments in Subsidiaries organized outside of the United States approved in advance in writing by Lender; (xii) Investments in Merrimack Bermuda to fund ordinary course operating expenses and for any payments contemplated under that certain License Agreement, dated as of September 26, 2005, by and between Merrimack and Merrimack Bermuda, as amended on June 30, 2011, that certain Assignment, Sublicense and Collaboration Agreement, dated as of May 5, 2011, by and between Merrimack Bermuda and PharmaEngine, Inc., and that certain Agreement for Sharing Research and Development Costs, dated as of June 30, 2011, by and between Merrimack and Merrimack Bermuda, each as amended from time to time, provided that at no time may Merrimack maintain in any Deposit Account of Merrimack Bermuda an amount that exceeds the sum of (a) \$100,000, plus (b) any ordinary course operating expenses due within 30 days, plus (c) any payments contemplated to be made under the agreements listed in this clause (xii) within 30 days; (xiii) licenses, joint ventures, collaboration agreements, strategic alliances and similar arrangements in the OCB; (xiv) Investments consisting of in-licensing of technology or products in the OCB; (xv) Investments utilizing Borrower's stock as consideration that (a) do not result in a Change in Control, (b) do not exceed \$2,000,000 with respect to the market value of the stock issued as consideration and (c) do not require the incurrence of any Indebtedness (other than Permitted Indebtedness); (xvi) Permitted Indebtedness that also constitutes Investments; (xvii) Investments made pursuant to any investment policy adopted by Borrower's Board of Directors; (xviii) Investments by Borrower in another Borrower; and (xix) additional Investments that do not exceed \$1,000,000 in the aggregate per fiscal year.

"Permitted Liens" means any and all of the following: (i) Liens in favor of Lender; (ii) Liens existing on the Closing Date which are disclosed in Schedule 1C; (iii) Liens for taxes, fees, assessments or other governmental charges or levies, either not delinquent or being contested in good faith by appropriate proceedings; provided, that Borrower maintains adequate reserves therefor in accordance with GAAP; (iv) Liens securing claims or demands of materialmen, artisans, mechanics, carriers, warehousemen, landlords and other like Persons arising in the ordinary course of Borrower's business and imposed without action of such parties; provided, that the payment thereof is not yet required; (v) Liens arising from judgments, decrees or attachments in circumstances which do not constitute an Event of Default hereunder; (vi) the following deposits, to the extent made in the ordinary course of business: deposits under worker's compensation, unemployment insurance, social security and other similar laws, or to secure the performance of bids, tenders or contracts (other than for the repayment of borrowed money) or to secure indemnity, performance or other similar bonds for the performance of bids, tenders or contracts (other than for the repayment of borrowed money) or to secure statutory obligations (other than liens arising under ERISA or environmental liens) or surety or appeal bonds, or to secure indemnity, performance or other similar bonds; (vii) Liens on Equipment or software, other intellectual property, or other capital assets, constituting purchase money liens and liens in connection with capital leases securing Indebtedness permitted in clause (iii) of "Permitted Indebtedness"; (viii) Liens incurred in connection with Subordinated Indebtedness; (ix) leasehold interests in leases or subleases and licenses granted in the OCB and not interfering in any material respect with the business of the licensor; (x) Liens in favor of customs and revenue authorities arising as a matter of law to secure payment of custom duties that are promptly paid on or before the date they become due; (xi) Liens on insurance proceeds securing the payment of financed insurance premiums that are promptly paid on or before the date they become due

7

(provided that such Liens extend only to such insurance proceeds and not to any other property or assets); (xii) statutory, common law and contractual rights of set-off and other similar rights as to deposits of cash and securities in favor of banks, other depository institutions and brokerage firms; (xiii) easements, zoning restrictions, rights-of-way and similar encumbrances on real property imposed by law or arising in the ordinary course of business so long as they do not materially impair the value or marketability of the related property; (xiv) Liens on cash or cash equivalents securing obligations permitted under clause (vii) of the definition of Permitted Indebtedness; (xv) Liens in connection with operating leases in the Equipment that is the subject of such leases; (xvi) Permitted Transfers; and (xvii) Liens incurred in connection with the extension, renewal or refinancing of the indebtedness secured by Liens of the type described in clauses (i) through (xvi) above; provided, that any extension, renewal or replacement Lien shall be limited to the property encumbered by the existing Lien and the principal amount of the indebtedness being extended, renewed or refinanced (as may have been reduced by any payment thereon) does not increase.

"Permitted Transfers" means (i) sales of Inventory in the normal course of business, (ii) licenses, joint ventures, collaboration agreements, strategic alliances and similar arrangements in the OCB providing for the licensing of technology, Intellectual Property or Borrower Products, the development or commercialization of technology, Intellectual Property or Borrower Products, the assignment of ownership or co-ownership rights in connection with the foregoing, or the providing of technical support, (iii) dispositions of worn-out, obsolete or surplus Equipment in the ordinary course of business, (iv) Permitted Investments, (v) Permitted Liens, (vi) dispositions of Copyright rights in connection with publications in scientific journals, and (vii) other Transfers of assets having a fair market value of not more than \$1,000,000 in the aggregate in any fiscal year.

"Person" means any individual, sole proprietorship, partnership, joint venture, trust, unincorporated organization, association, corporation, limited liability company, institution, other entity or government.

"Preferred Stock" means at any given time any equity security issued by Borrower that has any rights, preferences or privileges senior to Borrower's common stock.

"Receivables" means all of Borrower's Accounts, Instruments, Documents, Chattel Paper, Supporting Obligations, letters of credit, proceeds of any letter of credit, and Letter of Credit Rights.

"Secured Obligations" means Borrower's obligations under this Agreement and any Loan Document, including any obligation to pay any amount now owing or later arising.

"Subordinated Indebtedness" means Indebtedness subordinated to the Secured Obligations in amounts and on terms and conditions satisfactory to Lender in its sole discretion.

“Subsidiary” means an entity, whether corporate, partnership, limited liability company, joint venture or otherwise, in which Borrower owns or controls more than 50% of the outstanding voting securities, including each entity listed on Schedule 1 hereto, other than any Excluded Subsidiary.

“Term Advance” means any Term Loan funds advanced under this Agreement.

“Term Note” means a Promissory Note in substantially the form of Exhibit B.

“Trademark License” means any written agreement granting any right to use any Trademark or Trademark registration, now owned or hereafter acquired by Borrower or in which Borrower now holds or hereafter acquires any interest.

“Trademarks” means all trademarks (registered, common law or otherwise) and any applications in connection therewith, including registrations, recordings and applications in the United States Patent and Trademark Office or in any similar office or agency of the United States, any State thereof or any other country or any political subdivision thereof.

“UCC” means the Uniform Commercial Code as the same is, from time to time, in effect in the State of California; provided, that in the event that, by reason of mandatory provisions of law, any or all of the attachment, perfection or priority of, or remedies with respect to, Lender’s Lien on any Collateral is governed by the Uniform Commercial Code as the same is, from time to time, in effect in a jurisdiction other than the State of California, then the term “UCC” shall mean the Uniform Commercial Code as in effect, from time to time, in such other jurisdiction solely for purposes of the provisions thereof relating to such attachment, perfection, priority or remedies and for purposes of definitions related to such provisions.

Unless otherwise specified, all references in this Agreement or any Annex or Schedule hereto to a “Section,” “subsection,” “Exhibit,” “Annex,” or “Schedule” shall refer to the corresponding Section, subsection, Exhibit, Annex, or Schedule in or to this Agreement. Unless otherwise specifically provided herein, any accounting term used in this Agreement or the other Loan Documents shall have the meaning customarily given such term in accordance with GAAP, and all financial computations hereunder shall be computed in accordance with GAAP, consistently applied. Unless otherwise defined herein or in the other Loan Documents, terms that are used herein or in the other Loan Documents and defined in the UCC shall have the meanings given to them in the UCC.

SECTION 2. THE LOAN

2.1 Term Loan.

(a) **Advances.** Subject to the terms and conditions of this Agreement, Lender will make, and Borrower agrees to draw, a Term Advance of \$25,000,000 (the “First Tranche”) on the Closing Date. Beginning on the Closing Date, and continuing through December 15, 2012, Borrower may request and the Lender shall make one additional Term Advance in an aggregate amount up to \$15,000,000 (the “Second Tranche”). The aggregate outstanding Term Advances may be up to the Maximum Term Loan Amount.

(b) **Advance Request.** To obtain a Term Advance, Borrower shall complete, sign and deliver an Advance Request (which, as to the Second Tranche, shall be at least five business days before the Advance Date) and Term Note to Lender. Lender shall fund the Term Advance in the manner requested by the Advance Request provided that

each of the conditions precedent in Section 4 of this Agreement applicable to such Term Advance is satisfied as of the requested Advance Date.

(c) **Interest.** The principal balance of each Term Advance shall bear interest thereon from such Advance Date at the Interest Rate based on a year consisting of 360 days, with interest computed daily based on the actual number of days elapsed. The Interest Rate will float and change on the day the Prime Rate changes from time to time.

(d) **Payment.** Borrower will pay interest on each Term Advance in arrears on the first business day of each month, beginning the month after the Advance Date and ending on the first anniversary of the Closing Date (the “Interest Only Period”). Borrower shall repay the aggregate Term Loan principal balance that is outstanding on the first anniversary of the Closing Date in 30 equal monthly installments of principal and interest beginning December 1, 2013 and continuing on the first business day of each month thereafter. Notwithstanding the foregoing, Borrower may elect in its sole discretion to postpone the date on which the first such installment is due until June 1, 2014, (and the last payment date of the Interest Only Period shall be May 1, 2014), provided Borrower has received the aggregate amount of at least \$75,000,000 in aggregate gross proceeds in one or more transactions after the Closing Date and before December 1, 2013 (such transactions to include, without limitation, equity financings, subordinated debt, milestone payments and other payments from collaboration or other agreements that include a commercial relationship). The entire Term Loan principal balance and all accrued but unpaid interest hereunder, shall be due and payable on Maturity Date. Borrower shall make all payments under this Agreement without setoff, recoupment or deduction and regardless of any counterclaim or defense. Lender will initiate debit entries to the Borrower’s account as authorized on the ACH Authorization on each payment date of all periodic obligations payable to Lender under each Term Note or Term Advance.

2.2 Maximum Interest. Notwithstanding any provision in this Agreement, the Notes, or any other Loan Document, it is the parties’ intent not to contract for, charge or receive interest at a rate that is greater than the maximum rate permissible by law that a court of competent jurisdiction shall deem applicable hereto (which under the laws of the State of California shall be deemed to be the laws relating to permissible rates of interest on commercial loans) (the “Maximum Rate”). If a court of competent jurisdiction shall finally determine that Borrower has actually paid to Lender an amount of interest in excess of the amount that would have been payable if all of the Secured Obligations had at all times borne interest at the Maximum Rate, then such excess interest actually paid by Borrower shall be applied as follows: first, to the payment of principal outstanding on the Notes; second, after all principal is repaid, to the payment of Lender’s accrued interest, costs, expenses, professional fees and any other Secured Obligations; and third, after all Secured Obligations are repaid, the excess (if any) shall be refunded to Borrower.

2.3 Default Interest. In the event of any payment not being paid on the scheduled payment date (other than due to an ACH failure), subject to applicable grace periods, an amount equal to two percent (2%) of the past due amount shall be payable on

demand. Upon the occurrence and during the continuation of an Event of Default hereunder, all Secured Obligations, including principal, interest, compounded interest, and professional fees, shall bear interest at a rate per annum equal to the rate set forth in Section 2.1(c) plus five percent (5%) per annum. In the event any interest is not paid when due hereunder, delinquent interest shall be added to principal and shall bear interest on interest, compounded at the rate set forth in Section 2.1(c).

2.4 Prepayment. Borrower may, at any time prior to the Maturity Date, prepay all or any portion of the aggregate Loan principal balance outstanding without penalty or additional charge. Borrower shall provide at least 10 days prior notice of prepayment to Lender.

2.5 Final Payment. On the soonest to occur of (i) the Maturity Date, (ii) the date that Borrower prepays the entire principal amount and accrued interest of the Loan, and (iii) the entire principal amount and accrued interest become due, Borrower shall pay Lender a fee equal to \$1,200,000.

SECTION 3. SECURITY INTEREST

3.1 As security for the prompt and complete payment when due (whether on the payment dates or otherwise) of all the Secured Obligations, Borrower grants to Lender a security interest in all of Borrower's personal property now owned or hereafter acquired, including the following (collectively, the "Collateral"): (a) Receivables; (b) Equipment; (c) Fixtures; (d) General Intangibles (other than Intellectual Property); (e) Inventory; (f) Investment Property (but excluding thirty-five percent (35%) of the capital stock of any foreign Subsidiary that constitutes a Permitted Investment); (g) Deposit Accounts; (h) Cash; (i) Goods; and other tangible and intangible personal property of Borrower whether now or hereafter owned or existing, or acquired by, Borrower and wherever located; and, to the extent not otherwise included, all Proceeds of each of the foregoing and all accessions to, substitutions and replacements for, and rents, profits and products of each of the foregoing. Notwithstanding any of the foregoing, the Collateral shall not under any circumstance include, and no security interest is granted in (i) Borrower's Intellectual Property, provided, however, that the Collateral shall include all Accounts and General Intangibles that consist of rights to payment and proceeds from the sale, licensing or disposition of all or any part, or rights in, the Borrower's Intellectual Property (the "Rights to Payment"); (ii) any capital stock of any foreign subsidiary that constitutes a Permitted Investment in excess of 65% of such capital stock, provided that Lender's taking a security interest in more than 65% of such stock would be reasonably expected to cause Borrower to incur adverse tax consequences; (iii) any assets of Borrower that both (x) consist of compounds and raw materials used to manufacture biopharmaceuticals or which are used for preclinical testing or clinical trials, and (y) are located outside of the United States, if and for so long as the grant of such security interest is prohibited by or requires a consent under any applicable requirement of law of a jurisdiction other than the United States or any state or other subdivision thereof, provided that the Borrower shall not be required to undertake any steps under the laws of any applicable foreign jurisdiction with respect to the creation, perfection or priority of the Secured Party's security interests in such assets; (iv) equipment

financed by capital leases or purchase money financing and all Borrower's books and records relating to the foregoing, and any and all claims, rights and interest in such assets and all substitutions for, additions, attachments, accessories, accessions and improvements to and replacements, products, proceeds and insurance proceeds of any or all of the foregoing, but only to the extent and for so long as the agreements under which the equipment is financed prohibit granting a security interest therein to Lender; and (v) any cash or cash equivalents described in clause (vii) of the definition of Permitted Indebtedness. Notwithstanding the foregoing, if a judicial authority (including a U.S. Bankruptcy Court) holds that a security interest in the underlying Intellectual Property is necessary to have a security interest in the Rights to Payment, then the Collateral shall automatically, and effective as of the date of this Agreement, include the Intellectual Property to the extent necessary to permit perfection of Lender's security interest in the Rights to Payment, except to the extent that such inclusion as Collateral would violate any enforceable restriction in any agreement to which the Borrower is a party on the date hereof or any agreement entered into in connection with a Permitted Transfer.

SECTION 4. CONDITIONS PRECEDENT TO LOAN

The obligations of Lender to make the Loan hereunder are subject to the satisfaction by Borrower of the following conditions:

4.1 Initial Advance. On or prior to the Closing Date, Borrower shall have delivered to Lender the following:

- (a) executed originals of the Loan Documents, Account Control Agreements, a legal opinion of Borrower's counsel, and all other documents and instruments reasonably required by Lender to effectuate the transactions contemplated hereby or to create and perfect the Liens of Lender with respect to all Collateral, in all cases in form and substance reasonably acceptable to Lender;
- (b) certified copy of resolutions of Merrimack's board of directors evidencing approval of the Loan and other transactions evidenced by the Loan Documents;
- (c) certified copies of the Certificate of Incorporation and the Bylaws, as amended through the Closing Date, of Merrimack;
- (d) a certificate of good standing for Merrimack from its state of incorporation and similar certificates from all other jurisdictions in which it does business and where the failure to be qualified would have a Material Adverse Effect;
- (e) payment of the Facility Charge and reimbursement of Lender's current expenses reimbursable pursuant to this Agreement, to the extent Lender's non-legal transaction costs and due diligence expenses are not paid with the Commitment Fee, which amounts may be deducted from the initial Advance; and
- (f) such other documents as Lender may reasonably request.

4.2 All Advances. On each Advance Date:

(a) Lender shall have received an Advance Request and a Note for the relevant Advance as required by Section 2.1(b), as applicable, each duly executed by Borrower's Chief Executive Officer or Chief Financial Officer.

(b) The representations and warranties set forth in this Agreement and in Section 5 of this Agreement shall be true and correct in all material respects on and as of the Advance Date with the same effect as though made on and as of such date, except to the extent such representations and warranties expressly relate to an earlier date.

(c) Borrower shall be in compliance in all material respects with all the terms and provisions set forth herein and in each other Loan Document on its part to be observed or performed, and at the time of and immediately after such Advance no Event of Default shall have occurred and be continuing.

(d) Each Advance Request shall be deemed to constitute a representation and warranty by Borrower on the relevant Advance Date as to the matters specified in paragraphs (b) and (c) of this Section 4.2 and as to the matters set forth in the Advance Request.

4.3 No Default. As of the Closing Date and each Advance Date, as applicable, (i) no fact or condition exists that would (or would, with the passage of time, the giving of notice, or both) constitute an Event of Default and (ii) no Material Adverse Effect has occurred and is continuing.

SECTION 5. REPRESENTATIONS AND WARRANTIES OF BORROWER

Borrower represents and warrants that:

5.1 Corporate Status. Merrimack is a corporation duly organized, legally existing and in good standing under the laws of the State of Delaware, and is duly qualified as a foreign corporation in all jurisdictions in which the nature of its business or location of its properties require such qualifications and where the failure to be qualified could reasonably be expected to have a Material Adverse Effect. Borrower's present name, former names (if any), owned and leased locations, place of formation, tax identification number, organizational identification number and other information are correctly set forth in Exhibit C, as may be updated by Borrower in a written notice (including any Compliance Certificate) provided to Lender after the Closing Date.

5.2 Collateral. Borrower owns its property, free of all Liens, except for Permitted Liens. Borrower has the corporate power and authority to grant to Lender a Lien in the Collateral as security for the Secured Obligations.

5.3 Consents. Borrower's execution, delivery and performance of the Notes, this Agreement and all other Loan Documents (i) have been duly authorized by all

necessary corporate action of Borrower, (ii) will not result in the creation or imposition of any Lien upon the Collateral, other than Permitted Liens and the Liens created by this Agreement and the other Loan Documents, (iii) do not violate any provisions of Borrower's Certificate of Incorporation, bylaws, or any material law, regulation, order, injunction, judgment, decree or writ to which Borrower is subject and (iv) except as described on Schedule 5.3, do not violate any material contract or agreement or require the consent or approval of any other Person that has not been obtained. The individual or individuals executing the Loan Documents on behalf of the Borrower are duly authorized to do so.

5.4 Material Adverse Effect. No Material Adverse Effect has occurred and is continuing.

5.5 Actions Before Governmental Authorities. Except as described on Schedule 5.5, there are no actions, suits or proceedings at law or in equity by or before any governmental authority now pending or, to the knowledge of Borrower, threatened in writing against or affecting Borrower or its property as to which there is a reasonable likelihood of an adverse determination and which, if adversely determined, would reasonably be expected to, individually or in the aggregate, result in a Material Adverse Effect.

5.6 Laws; Agreements. Borrower is not in violation in any material respect of any material law, rule or regulation, or in default with respect to any judgment, writ, injunction or decree of any governmental authority, where such violation or default is or would reasonably be expected to result in a Material Adverse Effect. Borrower is not in default in any material respect under any provision of any material agreement or instrument evidencing Indebtedness, or any other material agreement to which it is a party or by which it is bound, and which default would reasonably be expected to have a Material Adverse Effect.

5.7 Information Correct and Current. No report, Advance Request, financial statement, exhibit or schedule furnished, by or on behalf of Borrower to Lender in connection with any Loan Document or included therein or delivered pursuant thereto, when taken together with all such other reports, statements or other documents or writings, contains any material misstatement of fact or omits to state any material fact necessary to make the statements therein, in the light of the circumstances under which they are made, not misleading at the time such statement was made or deemed made. Additionally, any and all financial or business projections provided by Borrower to Lender shall be at the time delivered (i) provided in good faith and based on the most current data and information available to Borrower, and (ii) the most current of such projections provided to Borrower's Board of Directors.

5.8 Tax Matters. Except as described on Schedule 5.8, (a) Borrower has filed all material federal, state and local tax returns that it is required to file (or extensions thereof), (b) Borrower has duly paid or fully reserved (if required under GAAP) for all material taxes or installments thereof (including any interest or penalties) as and when due,

which have or may become due pursuant to such returns, and (c) Borrower has paid or fully reserved for any material tax assessment received by Borrower for the three (3) years preceding the Closing Date, if any (including any taxes being contested in good faith and by appropriate proceedings).

5.9 Intellectual Property Claims. Except for Permitted Liens, Borrower is the sole owner of, or otherwise has the right to use, the Intellectual Property material to its business. Except as described on Schedule 5.9, (i) to Borrower's knowledge, each of the material issued Copyrights, Trademarks and Patents is valid and enforceable, (ii) no material Intellectual Property of Borrower has been judged by a decision of a court of competent jurisdiction, invalid or unenforceable, in whole or in part, and (iii) no claim has been made to Borrower in writing that any material Intellectual Property of Borrower violates the material rights of any third party, except to the extent such claim would not reasonably be expected to cause a Material Adverse Effect. Borrower has delivered to Lender by email a true, correct and complete list of each of Borrower's Patents, registered Trademarks, registered Copyrights, and material agreements under which Borrower licenses Intellectual Property from third parties (shrink-wrap software licenses and click on license agreements, open source code and other licenses available to the public without customization shall not be considered a material License or agreement), together with application or registration numbers, as applicable, owned by Borrower or any Subsidiary, in each case as of the Closing Date. Borrower is not in material breach of, nor has Borrower failed to perform any material obligations under, any of the foregoing contracts, licenses or agreements and, to Borrower's knowledge, no third party to any such contract, license or agreement is in material breach thereof or has failed to perform any material obligations thereunder in each case which would reasonably be expected to have a Material Adverse Effect.

5.10 Intellectual Property. Except as described on Schedule 5.10, Borrower has, or in the case of any proposed business, will have, all material rights with respect to Intellectual Property necessary in the operation or conduct of Borrower's business as currently conducted and proposed to be conducted by Borrower. Without limiting the generality of the foregoing, other than in connection with Permitted Transfers, and in the case of material in-bound Licenses, except for restrictions that are unenforceable under Division 9 of the UCC, and except as provided in Schedule 5.10, Borrower has the right, to the extent required to operate Borrower's business as conducted on the Closing Date, to freely transfer, license or assign Borrower's owned Intellectual Property without condition, restriction or payment of any kind (other than payments in the ordinary course of business) to any third party, and Borrower owns or has the right to use, pursuant to valid licenses, all material software development tools, library functions, compilers and other third-party software and other items that are necessary as of the Closing Date for the design, development, promotion, sale, license, manufacture, import, export, use or distribution of Borrower Products that are currently being clinically developed, manufactured or sold by Borrower. For the avoidance of doubt, shrink-wrap licenses, click on license agreements, open source code and other licenses available to the public without customization shall not be considered a material License.

5.11 Borrower Products. Except as described on Schedule 5.11, no material Intellectual Property owned by Borrower or Borrower Product has been or is subject to any actual or, to the knowledge of Borrower, threatened (in writing) litigation, inter-party proceeding (including any proceeding in the United States Patent and Trademark Office or any corresponding foreign office or agency) or outstanding decree, order, judgment, settlement agreement or stipulation that restricts in any material respect Borrower's use, transfer or licensing thereof or that may affect the validity, use or enforceability thereof, in any event that would reasonably be expected to result in a Material Adverse Effect. To Borrower's knowledge, there is no decree, order, judgment, agreement, stipulation, arbitral award or other provision entered into in connection with any litigation or proceeding that obligates Borrower to grant licenses or ownership interest in any future material Intellectual Property related to the operation or conduct of the business of Borrower or Borrower Products. As of the Closing Date, except as described on Schedule 5.11, Borrower has not received any written notice or claim challenging Borrower's ownership in any material Intellectual Property (or written notice of any claim challenging the ownership in any material licensed Intellectual Property of the owner thereof) or suggesting that any third party has any claim of legal or beneficial ownership with respect thereto. Except as described on Schedule 5.11, to Borrower's knowledge, neither Borrower's use of its material Intellectual Property nor the production and sale of Borrower Products infringes in any material respect the Intellectual Property or other rights of others.

5.12 Financial Accounts. Exhibit D, as may be updated by the Borrower in a written notice provided to Lender after the Closing Date, is a true, correct and complete list of (a) all banks and other financial institutions at which Borrower or any Subsidiary maintains Deposit Accounts and (b) all institutions at which Borrower or any Subsidiary maintains an account holding Investment Property, and such exhibit correctly identifies in all material respects the name, address and telephone number of each bank or other institution, the name in which the account is held, and the complete account number therefor.

5.13 Employee Loans. Except as permitted as a Permitted Investment, Borrower has no outstanding loans to any employee, officer or director of the Borrower nor has Borrower guaranteed the payment of any loan made to an employee, officer or director of the Borrower by a third party.

5.14 Capitalization and Subsidiaries. Borrower's capitalization as of September 30, 2012 is set forth on Schedule 5.14 annexed hereto. Borrower does not own any stock, partnership interest or other securities of any Person, except for Permitted Investments.

SECTION 6. INSURANCE; INDEMNIFICATION

6.1 Coverage. So long as there are any Secured Obligations outstanding, Borrower shall cause to be carried and maintained commercial general liability insurance, on an occurrence form, against risks customarily insured against in Borrower's line of business. Such risks shall include the risks of bodily injury, including death, property damage, personal injury, advertising injury, and contractual liability. Borrower must

maintain a minimum of \$2,000,000 of commercial general liability insurance (including umbrella coverage) for each occurrence. So long as there are any Secured Obligations outstanding, Borrower shall also cause to be carried and maintained insurance upon the Collateral, insuring against all risks of

physical loss or damage, in an amount not less than the full replacement cost of the Collateral, provided that such insurance may be subject to standard exceptions and deductibles.

6.2 Certificates. Borrower shall deliver to Lender certificates of insurance that evidence Borrower's compliance with its insurance obligations in Section 6.1 and the obligations contained in this Section 6.2. Borrower's insurance certificate shall state Lender is an additional insured for commercial general liability and a loss payee for all risk property damage insurance. All certificates of insurance will endeavor to provide for a minimum of thirty (30) days advance written notice to Lender of cancellation (except for 10 days for non payment). Any failure of Lender to scrutinize such insurance certificates for compliance is not a waiver of any of Lender's rights, all of which are reserved.

6.3 Indemnity. Borrower agrees to indemnify and hold Lender and its officers, directors, employees, agents, in-house attorneys, representatives and shareholders harmless from and against any and all claims, costs, expenses, damages and liabilities (including such claims, costs, expenses, damages and liabilities based on liability in tort, including strict liability in tort), including reasonable attorneys' fees and disbursements and other costs of investigation or defense (including those incurred upon any appeal), that may be instituted or asserted against or incurred by Lender or any such Person as the result of credit having been extended, suspended or terminated under this Agreement and the other Loan Documents or the administration of such credit, or in connection with or arising out of the transactions contemplated hereunder and thereunder, or any actions or failures to act in connection therewith, or arising out of the disposition or utilization of the Collateral, excluding in all cases claims resulting from Lender's or any indemnitee's negligence or willful misconduct. Borrower agrees to pay, and to save Lender harmless from, any and all liabilities with respect to, or resulting from any delay in paying, any and all excise, sales or other similar taxes (excluding taxes imposed on or measured by the net income of Lender) that may be payable or determined to be payable with respect to any of the Collateral or this Agreement; provided, however, that (i) with respect to such liabilities imposed originally and independently on Lender, Lender shall notify a Borrower of any such liabilities within 15 days of the initial date Lender had actual knowledge of Lender's direct exposure to such liabilities, and (ii) with respect to all other such liabilities not described in subsection (i), Lender shall notify Borrower of any such liabilities within 15 days of the initial date Lender has actual knowledge of its direct exposure to such liabilities.

SECTION 7. COVENANTS OF BORROWER

Borrower agrees as follows:

7.1 Financial Reports. Merrimack shall furnish to Lender the financial statements and reports listed hereinafter (the "Financial Statements"):

17

(a) as soon as practicable (and in any event within thirty (30) days) after the end of each month, unaudited financial statements as of the end of such month (prepared on a consolidated basis, if applicable), including balance sheet and related statements of comprehensive income and cash flows, together with a Compliance Certificate in the form of Exhibit E signed on behalf of Borrower by Merrimack's Chief Executive Officer or Chief Financial Officer.

(b) as soon as practicable (and in any event within 45 days) after the end of each of the first three calendar quarters of each year unaudited interim financial statements as of the end of such calendar quarter (prepared on a consolidated basis, if applicable), including balance sheet and related statements of comprehensive income and cash flows, together with a Compliance Certificate in the form of Exhibit E signed on behalf of Borrower by Merrimack's Chief Executive Officer or Chief Financial Officer.

(c) as soon as practicable (and in any event within ninety (90) days) after the end of each fiscal year, audited financial statements as of the end of such year (prepared on a consolidated basis, if applicable), including balance sheet and related statements of comprehensive income and cash flows, and setting forth in comparative form the corresponding figures for the preceding fiscal year, accompanied by an audit report that is unqualified as to scope of audit (other than a "going concern" qualification due to a lack of liquidity) from PricewaterhouseCoopers LLP or another firm of certified public accountants selected by Borrower and reasonably acceptable to Lender, together with a Compliance Certificate in the form of Exhibit E signed on behalf of Borrower by Merrimack's Chief Executive Officer or Chief Financial Officer;

(d) promptly after the sending or filing thereof, as the case may be, copies of any proxy statements, financial statements or reports that Borrower has made available generally to its stockholders and copies of any regular, periodic and special reports or registration statements that Borrower files with the Securities and Exchange Commission or any governmental authority that may be substituted therefor, or any national securities exchange; and

(e) financial and business projections promptly following their approval by Borrower's Board of Directors, as well as budgets, operating plans and other information reasonably requested by Lender (other than information that the Borrower determines in good faith and upon advice of counsel constitutes confidential information).

Borrower shall not make any change in its fiscal years or fiscal quarters or, without notice to Lender, any change in its accounting policies or reporting practices. The fiscal year of Borrower shall end on December 31.

The executed Compliance Certificate may be sent via facsimile to Lender at (650) 473-9194 or via e-mail to bjadot@herculestech.com. All Financial Statements required to be delivered pursuant to clauses (a) — (e) shall be sent via e-mail (which email may contain a link to such financial statements) to financialstatements@herculestech.com with a copy to bjadot@herculestech.com provided, that if e-mail is not available or sending such Financial

18

Statements via e-mail is not possible, they shall be sent via facsimile to Lender at: (866) 468-8916, attention Chief Credit Officer.

7.2 Management Rights. Borrower shall permit any representative that Lender authorizes, including its attorneys and accountants, to inspect the Collateral and examine and make copies and abstracts of the books of account and records of Borrower at reasonable times and upon

reasonable notice during normal business hours (but in any event no more than once in any 12-month period unless an Event of Default has occurred and is continuing). In addition, any such representative shall have the right to meet with management and officers of Borrower to discuss such books of account and records. In addition, Lender shall be entitled at reasonable times and intervals to consult with and advise the management and officers of Borrower concerning significant business issues affecting Borrower. Such consultations shall not unreasonably interfere with Borrower's business operations. The parties intend that the rights granted Lender shall constitute "management rights" within the meaning of 29 C.F.R Section 2510.3-101(d)(3)(ii), but that any advice, recommendations or participation by Lender with respect to any business issues shall not be deemed to give Lender, nor be deemed an exercise by Lender of, control over Borrower's management or policies.

7.3 Further Assurances. Borrower shall from time to time execute, deliver and file, alone or with Lender, any financing statements, security agreements, collateral assignments, notices, control agreements, or other necessary documents to perfect or give to Lender a first priority Lien on the Collateral (subject to Permitted Liens). Borrower shall from time to time procure any instruments or documents as may be reasonably requested by Lender, and take all further action that may be necessary or desirable, or that Lender may reasonably request, to perfect and protect the Liens granted hereby and thereby. In addition, and for such purposes only, Borrower hereby authorizes Lender to execute and deliver on behalf of Borrower and to file such financing statements, collateral assignments, notices, control agreements, security agreements and other documents without the signature of Borrower either in Lender's name or in the name of Lender as agent and attorney-in-fact for Borrower. Borrower shall in its reasonable business judgment protect and defend Borrower's title to the Collateral and Lender's Lien thereon against all Persons claiming any interest adverse to Borrower or Lender other than Permitted Liens.

7.4 Indebtedness. Borrower shall not create, incur, assume, guarantee or be or remain liable with respect to any Indebtedness, or permit any Subsidiary so to do, other than Permitted Indebtedness or prepay any Indebtedness or take any actions which impose on Borrower an obligation to prepay any Indebtedness at any time before the Maturity Date, except for the conversion of Indebtedness into equity securities and the payment of cash in lieu of fractional shares in connection with such conversion.

7.5 Encumbrances. Borrower shall at all times keep its property free and clear from any Liens whatsoever (except for Permitted Liens), and shall give Lender prompt written notice when the Borrower knows of any legal process affecting such property, or any Liens thereon. Borrower shall cause its Subsidiaries to protect and defend such Subsidiary's title to its property from and against all Persons claiming any interest adverse to such Subsidiary, and Borrower shall cause its Subsidiaries at all times to keep such Subsidiary's

19

property free and clear from any Liens whatsoever (except for Permitted Liens), and shall give Lender prompt written notice when the Borrower knows of any legal process affecting such Subsidiary's property. Borrower shall not enter into any agreement with any Person other than Lender (other than in connection with Permitted Liens and Permitted Transfers) that has the effect of restricting Borrower from granting a Lien on its Intellectual Property to Lender.

7.6 Investments. Borrower shall not directly or indirectly acquire or own, or make any Investment in or to any Person, or permit any of its Subsidiaries so to do, other than Permitted Investments.

7.7 Distributions. Without Lender's prior written consent, not to be unreasonably withheld, Borrower shall not, and shall not allow any Subsidiary to, (a) repurchase or redeem any class of stock or other equity interest other than pursuant to employee, director or consultant repurchase plans or other similar agreements, in an aggregate amount not to exceed \$250,000, (b) declare or pay any cash dividend or make a cash distribution on any class of stock or other equity interest, except that a Subsidiary may pay dividends or make distributions to Borrower, or (c) lend money to any employees, officers or directors or guarantee the payment of any such loans granted by a third party other than Permitted Investments.

7.8 Transfers. Except for Permitted Transfers, Permitted Investments and Permitted Liens, without Lender's prior written consent, not to be unreasonably withheld, Borrower shall not voluntarily or involuntarily transfer, sell, lease, license, lend or in any other manner convey any equitable, beneficial or legal interest in any material portion of their assets outside of the OCB.

7.9 Mergers or Acquisitions. Without Lender's prior written consent, not to be unreasonably withheld, (a) Borrower shall not merge or consolidate, or permit any of its Subsidiaries to merge or consolidate, with or into any other business organization (other than mergers or consolidations of a Subsidiary into another Subsidiary or into Borrower), (b) Borrower shall not acquire, or permit any of its Subsidiaries to acquire, all or substantially all of the capital stock or property of another Person other than Permitted Investments, provided that, in each case, Borrower may make (i) acquisitions utilizing cash as consideration that constitute Permitted Investments and (ii) acquisitions utilizing Borrower's stock as consideration that constitute Permitted Investments. Borrower may dissolve any Subsidiary as long as the assets of that Subsidiary are promptly distributed to such Subsidiary's shareholder.

7.10 Taxes. Borrower and its Subsidiaries shall pay when due all material taxes, fees or other charges of any nature whatsoever (together with any related interest or penalties) now or hereafter imposed or assessed against Borrower, Lender or the Collateral or upon Borrower's ownership, possession, use, operation or disposition thereof or upon Borrower's rents, receipts or earnings arising therefrom. Borrower shall file on or before the due date therefor all personal property tax returns (or extensions) in respect of the Collateral. Notwithstanding the foregoing, Borrower may contest, in good faith and by

20

appropriate proceedings, taxes for which Borrower maintains adequate reserves therefor in accordance with GAAP.

7.11 Corporate Changes.

(a) Neither Borrower nor any Subsidiary shall change its corporate name, legal form or jurisdiction of formation without twenty (20) days' prior written notice to Lender.

(b) Without Lender's prior written consent, not to be unreasonably withheld, Borrower shall not suffer a Change in Control.

(c) Neither Borrower nor any Subsidiary shall relocate its chief executive office or its principal place of business unless: (i) it has provided prior written notice to Lender; and (ii) such relocation shall be within the continental United States.

(d) Without Lender's prior written consent, not to be unreasonably withheld, neither Borrower nor any Subsidiary shall relocate any item of Collateral (other than (v) Borrower Products, including compounds and raw materials used to manufacture biopharmaceuticals or which are used for preclinical testing or clinical trials, in the OCB, (w) Permitted Transfers, (x) sales of Inventory in the ordinary course of business, (y) relocations of Equipment having an aggregate value of up to \$500,000 in any fiscal year, and (z) relocations of Collateral from a location described on Exhibit C to another location described on Exhibit C) unless (i) it has provided prompt written notice to Lender, (ii) such relocation is within the continental United States and, (iii) if such relocation is to a third party bailee, and the Collateral has a value in excess of \$500,000, it has delivered a bailee agreement in form and substance reasonably acceptable to Lender.

7.12 Deposit Accounts. No Borrower shall maintain any Deposit Accounts constituting Collateral, or accounts holding Investment Property constituting Collateral, except with respect to which Lender has an Account Control Agreement, if applicable.

7.13 Subsidiaries. Borrower shall notify Lender of each Subsidiary formed subsequent to the Closing Date and, within 15 days of formation, shall cause any such Subsidiary organized under the laws of any State within the United States to execute and deliver to Lender a Joinder Agreement.

SECTION 8. RIGHT TO INVEST

8.1 Lender or its assignee or nominee shall have the right, in its discretion, to purchase shares of Borrower's securities having an aggregate purchase price of up to One Million and No/100 Dollars (\$1,000,000.00) in the Equity Event. Such right shall be upon the same terms and conditions afforded to other investors in such Equity Event.

21

SECTION 9. EVENTS OF DEFAULT

The occurrence of any one or more of the following events shall be an Event of Default:

9.1 Payments. Borrower fails to pay any amount due under this Agreement, the Notes or any of the other Loan Documents on the due date, and in each case such default continues for more than three (3) business days after the due date thereof; or

9.2 Covenants. Borrower breaches or defaults in the performance of any covenant under any of the Loan Documents, and (a) with respect to a default under any such covenant under this Agreement (other than under Sections 6.1, 7.5, 7.6, 7.7, 7.8, 7.9 or 7.11) such default continues for more than ten (10) business days after the earlier of the date on which (i) Lender has given notice of such default to Borrower and (ii) Borrower has actual knowledge of such default, (b) with respect to a default under any of Sections 6.1, 7.5, 7.6, 7.7, 7.8, 7.9 or 7.11, upon the earlier to occur of (x) Lender giving written notice of such default to Borrower or (y) Borrower having actual knowledge of such default; or

9.3 Material Adverse Effect. A circumstance has occurred that would reasonably be expected to have a Material Adverse Effect; or

9.4 Other Loan Documents. The occurrence of any material default under any Loan Document or any other agreement between Borrower and Lender and such default continues for more than ten (10) business days after the earlier of (a) Lender has given notice of such default to Borrower, or (b) Borrower has actual knowledge of such default; or

9.5 Representations. Any representation or warranty made by Borrower in any Loan Document shall have been false or misleading in any material respect; or

9.6 Insolvency. Borrower (A) (i) shall make an assignment for the benefit of creditors; or (ii) shall be unable to pay its debts as they become due, or be unable to pay the Secured Obligations under the Loan Documents, or shall become insolvent; or (iii) shall file a voluntary petition in bankruptcy; or (iv) shall file any petition, answer, or document seeking for itself any reorganization, arrangement, composition, readjustment, liquidation, dissolution or similar relief under any present or future statute, law or regulation pertinent to such circumstances; or (v) shall seek or consent to or acquiesce in the appointment of any trustee, receiver, or liquidator of Borrower or of all or any substantial part (i.e., 33-1/3% or more) of the assets or property of Borrower; or (vi) shall cease operations of its business as its business has normally been conducted for 3 consecutive business days, or terminate substantially all of its employees; or (vii) Borrower or its directors or majority shareholders shall take any action initiating any of the foregoing actions described in clauses (i) through (vi); or (B) either (i) sixty (60) days shall have expired after the commencement of an involuntary action against Borrower seeking reorganization, arrangement, composition, readjustment, liquidation, dissolution or similar relief under any present or future statute, law or regulation, without such action being dismissed or all orders or proceedings thereunder affecting the operations or the business of Borrower being stayed; or (ii) a stay of any such order or proceedings shall thereafter be set aside and the

22

action setting it aside shall not be timely appealed; or (iii) Borrower shall file any answer admitting or not contesting the material allegations of a petition filed against Borrower in any such proceedings; or (iv) the court in which such proceedings are pending shall enter a decree or order granting the relief sought in any such proceedings; or (v) forty five (45) days shall have expired after the appointment, without the consent or acquiescence of Borrower, of any trustee, receiver or liquidator of Borrower or of all or any substantial part of the properties of Borrower without such appointment being vacated; or

9.7 Attachments; Judgments. Any portion of Borrower's assets having a value in excess of \$350,000 is attached or seized, or a levy is filed against any such assets, or a judgment or judgments (not covered by insurance as to which an insurer not affiliated with Borrower has acknowledged coverage) is/are entered for the payment of money, individually or in the aggregate, of at least \$350,000, and remains unstayed,

unbonded and unsatisfied for more than 30 days, or Borrower is enjoined or in any way prevented by court order from conducting any material part of its business; or

9.8 Other Obligations. The occurrence of any default under any agreement or obligation of Borrower involving any Indebtedness in excess of \$1,000,000.

SECTION 10. REMEDIES

10.1 General. Upon and during the continuance of any one or more Events of Default, (i) Lender may, at its option, accelerate and demand payment of all or any part of the Secured Obligations and declare them to be immediately due and payable (provided, that upon the occurrence of an Event of Default of the type described in Section 9.6, the Notes and all of the Secured Obligations shall automatically be accelerated and made due and payable, in each case without any further notice or act), and (ii) Lender may notify any of Borrower's account debtors to make payment directly to Lender, compromise the amount of any such account on Borrower's behalf and endorse Lender's name without recourse on any such payment for deposit directly to Lender's account. Lender may exercise all rights and remedies with respect to the Collateral under the Loan Documents or otherwise available to it under the UCC and other applicable law, including the right to release, hold, sell, lease, liquidate, collect, realize upon, or otherwise dispose of all or any part of the Collateral and the right to occupy, utilize, process and commingle the Collateral. All Lender's rights and remedies shall be cumulative and not exclusive.

10.2 Collection; Foreclosure. Upon the occurrence and during the continuance of any Event of Default, Lender may, at any time or from time to time, apply, collect, liquidate, sell in one or more sales, lease or otherwise dispose of, any or all of the Collateral, in its then condition or following any commercially reasonable preparation or processing, in such order as Lender may elect and for its fair market value. Any such sale may be made either at public or private sale at its place of business or elsewhere. Borrower agrees that any such public or private sale may occur upon ten (10) calendar days' prior written notice to Borrower. Lender may require Borrower to assemble the Collateral and make it available to Lender at a place designated by Lender that is reasonably convenient to

23

Lender and Borrower. The proceeds of any sale, disposition or other realization upon all or any part of the Collateral shall be applied by Lender in the following order of priorities:

First, to Lender in an amount sufficient to pay in full Lender's costs and professionals' and advisors' fees and expenses as described in Section 11.11;

Second, to Lender in an amount equal to the then unpaid amount of the Secured Obligations (including principal, interest, and the Default Rate interest), in such order and priority as Lender may choose in its sole discretion; and

Finally, after the full and final payment in Cash of all of the Secured Obligations, to any creditor holding a junior Lien on the Collateral, or to Borrower or its representatives or as a court of competent jurisdiction may direct.

Lender shall be deemed to have acted reasonably in the custody, preservation and disposition of any of the Collateral if it complies with the obligations of a secured party under the UCC.

10.3 The Lender agrees not to issue a notice of exclusive control or any other instruction under any Account Control Agreement unless an Event of Default has occurred and is continuing.

10.4 No Waiver. Lender shall be under no obligation to marshal any of the Collateral for the benefit of Borrower or any other Person, and Borrower expressly waives all rights, if any, to require Lender to marshal any Collateral.

10.5 Cumulative Remedies. The rights, powers and remedies of Lender hereunder shall be in addition to all rights, powers and remedies given by statute or rule of law and are cumulative. The exercise of any one or more of the rights, powers and remedies provided herein shall not be construed as a waiver of or election of remedies with respect to any other rights, powers and remedies of Lender.

SECTION 11. MISCELLANEOUS

11.1 Severability. Whenever possible, each provision of this Agreement shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement shall be prohibited by or invalid under such law, such provision shall be ineffective only to the extent and duration of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions of this Agreement.

11.2 Notice. Except as otherwise provided herein, any notice, demand, request, consent, approval, declaration, service of process or other communication (including the delivery of Financial Statements) (a "Notification") that is required, contemplated, or permitted under the Loan Documents or with respect to the subject matter hereof shall be in writing, and shall be deemed to have been validly served, given, delivered, and received upon the earlier of: (i) the day of transmission by facsimile or hand delivery or delivery by an overnight express service or overnight mail delivery service; or (ii) the third calendar

24

day after deposit in the United States mails, with proper first class postage prepaid, in each case addressed to the party to be notified as follows:

(a) If to Lender:

HERCULES TECHNOLOGY GROWTH CAPITAL, INC.
Legal Department
Attention: Chief Legal Officer and Bryan Jadot
400 Hamilton Avenue, Suite 310
Palo Alto, CA 94301
Facsimile: 650-473-9194
Telephone: 650-289-3060

With a copy to:

HERCULES TECHNOLOGY GROWTH CAPITAL, INC.
31 St. James Ave., Suite 790
Boston, MA 02116
Attention: Bryan Jadot
Telephone: 617-314-9992

(b) If to Borrower:

MERRIMACK PHARMACEUTICALS, INC.

One Kendall Square, Suite B7201
Cambridge, MA 02139
Attention: William A. Sullivan
Chief Financial Officer
Facsimile: 617-491-1386
Telephone: 617-441-1000

With a copy (that shall not constitute notice) to:

One Kendall Square, Suite B7201
Cambridge, MA 02139
Attention: Jeff Munsie, Corporate Counsel
Facsimile: 617-812-8122
Telephone: 617-441-1000

and to:

Wilmer Cutler Pickering Hale and Dorr LLP.
60 State Street
Boston, MA 02446
Attention: David E. Redlick
Facsimile: 617-526-5000
Telephone: 617-526-6000

or to such other address as each party may designate for itself by like notice. Any notification delivered to a party to this Agreement in accordance with this Section shall be valid notwithstanding any failure to deliver a copy thereof to a Person not party to this Agreement.

11.3 Entire Agreement; Amendments. This Agreement, the Notes, and the other Loan Documents constitute the entire agreement and understanding of the parties hereto in respect of the subject matter hereof and thereof, and supersede and replace in their entirety any prior proposals, term sheets, letters, negotiations or other documents or agreements, whether written or oral, with respect to the subject matter hereof or thereof (including Lender's revised proposal letter dated October 1, 2012). None of the terms of this Agreement, the Notes or any of the other Loan Documents may be amended except by an instrument executed by each of the parties hereto.

11.4 No Strict Construction. The parties hereto have participated jointly in the negotiation and drafting of this Agreement. In the event an ambiguity or question of intent or interpretation arises, this Agreement shall be construed as if drafted jointly by the parties hereto and no presumption or burden of proof shall arise favoring or disfavoring any party by virtue of the authorship of any provisions of this Agreement.

11.5 No Waiver. The powers conferred upon Lender by this Agreement are solely to protect its rights hereunder and under the other Loan Documents and its interest in the Collateral and shall not impose any duty upon Lender to exercise any such powers. No omission or delay by Lender at any time to enforce any right or remedy reserved to it, or to require performance of any of the terms, covenants or provisions hereof by Borrower at any time designated, shall be a waiver of any such right or remedy to which Lender is entitled, nor shall it in any way affect the right of Lender to enforce such provisions thereafter.

11.6 Survival. All agreements, representations and warranties contained in this Agreement, the Notes and the other Loan Documents or in any document delivered pursuant hereto or thereto shall be for the benefit of Lender and shall survive the execution and delivery of this Agreement and Section 6.3 and any provisions that, by their express terms are to survive the expiration or other termination of this Agreement shall survive such expiration or termination. This Agreement shall terminate upon the payment in full of the Secured Obligations.

11.7 Successors and Assigns. The provisions of this Agreement and the other Loan Documents shall inure to the benefit of and be binding on Borrower and its permitted assigns (if any). Borrower shall not assign its obligations under this Agreement, the Notes or any of the other Loan Documents without Lender's express prior written consent, and any such attempted assignment shall be void and of no effect. Lender may assign, transfer, or endorse its rights hereunder (except for Section 8.1, which may not be assigned without Borrower's written consent) and under the other

11.8 **Governing Law.** This Agreement, the Notes and the other Loan Documents have been negotiated and delivered to Lender in the State of California, and shall have been accepted by Lender in the State of California. Payment to Lender by Borrower of the Secured Obligations is due in the State of California. This Agreement, the Notes and the other Loan Documents shall be governed by, and construed and enforced in accordance with, the laws of the State of California, excluding conflict of laws principles that would cause the application of laws of any other jurisdiction.

11.9 **Consent to Jurisdiction and Venue.** All judicial proceedings (to the extent that the reference requirement of Section 11.10 is not applicable) arising in or under or related to this Agreement, the Notes or any of the other Loan Documents may be brought in any state or federal court located in the State of California. By execution and delivery of this Agreement, each party hereto generally and unconditionally: (a) consents to personal jurisdiction in Santa Clara County, State of California; (b) waives any objection as to jurisdiction or venue in California Superior Court, Santa Clara County, State of California; (c) agrees not to assert any defense based on lack of jurisdiction or venue in the aforesaid courts; and (d) irrevocably agrees to be bound by any judgment rendered thereby in connection with this Agreement, the Notes or the other Loan Documents. Service of process on any party hereto in any action arising out of or relating to this Agreement shall be effective if given in accordance with the requirements for notice set forth in Section 11.2, and shall be deemed effective and received as set forth in Section 11.2. Nothing herein shall affect the right to serve process in any other manner permitted by law or shall limit the right of either party to bring proceedings in the courts of any other jurisdiction.

11.10 **Mutual Waiver of Jury Trial / Judicial Reference.**

(a) Because disputes arising in connection with complex financial transactions are most quickly and economically resolved by an experienced and expert person and the parties wish applicable state and federal laws to apply (rather than arbitration rules), the parties desire that their disputes be resolved by a judge applying such applicable laws. EACH OF BORROWER AND LENDER SPECIFICALLY WAIVES ANY RIGHT IT MAY HAVE TO TRIAL BY JURY OF ANY CAUSE OF ACTION, CLAIM, CROSS-CLAIM, COUNTERCLAIM, THIRD PARTY CLAIM OR ANY OTHER CLAIM (COLLECTIVELY, "CLAIMS") ASSERTED BY BORROWER AGAINST LENDER OR ITS ASSIGNEE OR BY LENDER OR ITS ASSIGNEE AGAINST BORROWER. This waiver extends to all such Claims, including Claims that involve Persons other than Borrower and Lender; Claims that arise out of or are in any way connected to the relationship between Borrower and Lender; and any Claims for damages, breach of contract, tort, specific performance, or any equitable or legal relief of any kind, arising out of this Agreement, any other Loan Document.

(b) If the waiver of jury trial set forth in Section 11.10(a) is ineffective or unenforceable, the parties agree that all Claims shall be resolved by reference to a private judge sitting without a jury, pursuant to Code of Civil Procedure Section 638, before a mutually acceptable referee or, if the parties cannot agree, a referee selected by the

Presiding Judge of the Santa Clara County, California. Such proceeding shall be conducted in Santa Clara County, California, with California rules of evidence and discovery applicable to such proceeding. In the event Claims are to be resolved by judicial reference, either party may seek from a court identified in Section 11.9, any prejudgment order, writ or other relief and have such prejudgment order, writ or other relief enforced to the fullest extent permitted by law notwithstanding that all Claims are otherwise subject to resolution by judicial reference.

11.11 **Professional Fees.** Borrower promises to pay Lender's fees and expenses necessary to finalize the loan documentation, including but not limited to reasonable attorneys fees, UCC searches, filing costs, and other reasonable miscellaneous expenses. In addition, Borrower promises to pay any and all reasonable attorneys' and other reasonable outside professionals' fees and expenses incurred by Lender after the Closing Date in connection with or related to: (a) the Loan; (b) the administration, collection, or enforcement of the Loan; (c) the amendment or modification of the Loan Documents; (d) any waiver, consent, release, or termination under the Loan Documents; (e) the protection, preservation, sale, lease, liquidation, or disposition of Collateral or the exercise of remedies with respect to the Collateral; (f) any legal, litigation, administrative, arbitration, or out of court proceeding in connection with or related to Borrower or the Collateral, and any appeal or review thereof; and (g) any bankruptcy, restructuring, reorganization, assignment for the benefit of creditors, workout, foreclosure, or other action related to Borrower, the Collateral, the Loan Documents, including representing Lender in any adversary proceeding or contested matter commenced or continued by or on behalf of Borrower's estate, and any appeal or review thereof.

11.12 **Confidentiality.** Lender acknowledges that certain items of Collateral and information provided to Lender by Borrower are confidential or proprietary information of Borrower, if and to the extent such information either (x) is marked as confidential, proprietary or secret by Borrower at the time of disclosure, or (y) should reasonably be understood to be confidential, proprietary or secret (the "Confidential Information"). Accordingly, Lender agrees that any Confidential Information it may obtain in the course of acquiring, administering, perfecting or enforcing Lender's security interest in the Collateral or otherwise shall not be disclosed to any other person or entity in any manner whatsoever, in whole or in part, without the prior written consent of Borrower, except that Lender may disclose any such information: (a) to its own directors, officers, employees, accountants, counsel and other professional advisors and to its controlled affiliates if Lender in its sole discretion determines that any such party should have access to such information in connection with such party's responsibilities in connection with the Loan or this Agreement and, provided that such recipient of such Confidential Information either (i) agrees to be bound by the confidentiality provisions of this paragraph or (ii) is otherwise subject to confidentiality restrictions that reasonably protect against the disclosure of Confidential Information; (b) if such information is generally available to the public without any disclosure by Lender or breach of this Section 11.12; (c) if required or appropriate in any report, statement or testimony submitted to any governmental authority having or claiming to have jurisdiction over Lender; (d) if required or appropriate in response to any summons or subpoena or in connection with any litigation, to the extent

permitted or deemed advisable by Lender’s counsel; (e) to comply with any legal requirement or law applicable to Lender; (f) to the extent reasonably necessary in connection with the exercise of any right or remedy under any Loan Document, including Lender’s sale, lease, or other disposition of Collateral during the continuation of an Event of Default; (g) to any participant or assignee of Lender or any prospective participant or assignee; provided, that such participant or assignee or prospective participant or assignee agrees in writing to be bound by this Section prior to disclosure; or (h) otherwise with the prior written consent of Borrower; provided, that any disclosure made in violation of this Agreement shall not affect the obligations of Borrower or any of its affiliates or any guarantor under this Agreement or the other Loan Documents.

11.13 Assignment of Rights. Borrower acknowledges and understands that Lender may sell and assign all or part of its interest hereunder and under the Note(s) and Loan Documents (an “Assignment”) to any person or entity provided that (a) no such Assignment shall be made to a competitor of the Borrower, and (b) Lender will not make any Assignment to a Person organized or resident outside the United States without Borrower’s consent which shall not be unreasonably withheld (such assignee, an “Assignee” or “assignee”). After such assignment the term “Lender” as used in the Loan Documents shall mean and include such Assignee, and such Assignee shall be vested with all rights, powers and remedies of Lender hereunder with respect to the interest so assigned; but with respect to any such interest not so transferred, Lender shall retain all rights, powers and remedies hereby given. No such assignment by Lender shall relieve Borrower of any of its obligations hereunder. No such Assignment shall release the Lender from its obligations to fund the Term Advance subject to the terms and conditions contained in Section 2.1 hereof. Lender agrees that in the event of any transfer by it of the Note(s), it will endorse thereon a notation as to the portion of the principal of the Note(s), which shall have been paid at the time of such transfer and as to the date to which interest shall have been last paid thereon.

11.14 Revival of Secured Obligations. This Agreement and the Loan Documents shall remain in full force and effect and continue to be effective if any petition is filed by or against Borrower for liquidation or reorganization, if Borrower becomes insolvent or makes an assignment for the benefit of creditors, if a receiver or trustee is appointed for all or any significant part of Borrower’s assets, or if any payment or transfer of Collateral is recovered from Lender. The Loan Documents and the Secured Obligations and Collateral security shall continue to be effective, or shall be revived or reinstated, as the case may be, if at any time payment and performance of the Secured Obligations or any transfer of Collateral to Lender, or any part thereof is rescinded, avoided or avoidable, reduced in amount, or must otherwise be restored or returned by, or is recovered from, Lender or by any obligee of the Secured Obligations, whether as a “voidable preference,” “fraudulent conveyance,” or otherwise, all as though such payment, performance, or transfer of Collateral had not been made. In the event that any payment, or any part thereof, is rescinded, reduced, avoided, avoidable, restored, returned, or recovered, the Loan Documents and the Secured Obligations shall be deemed, without any further action or documentation, to have been revived and reinstated except to the extent of the full, final, and indefeasible payment to Lender in Cash.

11.15 Counterparts. This Agreement and any amendments, waivers, consents or supplements hereto may be executed in any number of counterparts, and by different parties hereto in separate counterparts, each of which when so delivered shall be deemed an original, but all of which counterparts shall constitute but one and the same instrument.

11.16 No Third Party Beneficiaries. No provisions of the Loan Documents are intended, nor will be interpreted, to provide or create any third-party beneficiary rights or any other rights of any kind in any person other than Lender and Borrower unless specifically provided otherwise herein, and, except as otherwise so provided, all provisions of the Loan Documents will be personal and solely between the Lender and the Borrower.

11.17 Publicity. Subject to applicable law, Lender may use Borrower’s name and logo, and include a brief description of the relationship between Borrower and Lender, in Lender’s marketing materials, provided that the Borrower shall have the right to review such use prior to publication.

(SIGNATURES TO FOLLOW)

IN WITNESS WHEREOF, Borrower and Lender have duly executed and delivered this Loan and Security Agreement as of the day and year first above written.

BORROWER:

MERRIMACK PHARMACEUTICALS, INC.

By: /s/ William A. Sullivan

Name: William A. Sullivan

Title: Chief Financial Officer

LENDER:

HERCULES TECHNOLOGY GROWTH CAPITAL, INC.

By: /s/ K. Nicholas Martitsch

Name: K. Nicholas Martitsch

Title: Associate General Counsel

Table of Exhibits and Schedules

Exhibit A:	Advance Request Attachment to Advance Request
Exhibit B:	Term Note
Exhibit C:	Name, Locations, and Other Information for Borrower
Exhibit D:	Borrower's Deposit Accounts and Investment Accounts
Exhibit E:	Compliance Certificate
Exhibit F:	Joinder Agreement
Exhibit G:	ACH Debit Authorization Agreement
Schedule 1	Subsidiaries
Schedule 1A	Existing Permitted Indebtedness
Schedule 1B	Existing Permitted Investments
Schedule 1C	Existing Permitted Liens
Schedule 5.3	Consents, Etc.
Schedule 5.5	Actions Before Governmental Authorities
Schedule 5.8	Tax Matters
Schedule 5.9	Intellectual Property Claims
Schedule 5.10	Intellectual Property
Schedule 5.11	Borrower Products
Schedule 5.14	Capitalization

EXHIBIT A

ADVANCE REQUEST

To: _____ Date: _____, 2012

Hercules Technology Growth Capital, Inc.
400 Hamilton Avenue, Suite 310
Palo Alto, CA 94301
Facsimile: 650-473-9194
Attn: Bryan Jadot

MERRIMACK PHARMACEUTICALS, INC. ("Borrower") hereby requests from Hercules Technology Growth Capital, Inc. ("Lender") an Advance in the amount of _____ Dollars (\$) on _____, 2012 (the "Advance Date") pursuant to the Loan and Security Agreement between Borrower and Lender (the "Agreement"). Capitalized words and other terms used but not otherwise defined herein are used with the same meanings as defined in the Agreement.

Please:

(a) Issue a check payable to Borrower

or

(b) Wire Funds to Borrower's account

Bank:
Address:

ABA Number:
Account Number:
Account Name:

Borrower represents that the conditions precedent to the Advance set forth in the Agreement are satisfied and shall be satisfied upon the making of such Advance, including but not limited to: (i) that no Material Adverse Effect has occurred and is continuing; (ii) that the representations and warranties set forth in the Agreement are true and correct in all material respects on and as of the Advance Date with the same effect as though made on and as of such date, except to the extent such representations and warranties expressly relate to an earlier date; (iii) that Borrower is in compliance in all material respects with all the terms and provisions set forth in each Loan Document on its part to be observed or performed; and (iv) that as of the Advance Date, no fact or condition exists that constitutes (or would, with the passage of time, the giving of notice, or both) constitute an Event of Default under the Loan Documents. Borrower understands and acknowledges that Lender has the right to review the financial information supporting this representation and, based upon such review in its sole discretion, Lender may decline to fund the requested Advance if such representation is not true and correct in all material respects.

Borrower hereby represents that the information described in Exhibit C to the Loan Agreement have not changed since the date of the Agreement or, if the Attachment to this Advance Request is completed, are as set forth in the Attachment to this Advance Request.

Borrower agrees to notify Lender promptly before the funding of the Loan if any of the matters which have been represented above shall not be true and correct on the Borrowing Date and if Lender has received no such notice before the Advance Date then the statements set forth above shall be deemed to have been made and shall be deemed to be true and correct as of the Advance Date.

Executed as of _____, 2012.

BORROWER:

MERRIMACK PHARMACEUTICALS, INC.

SIGNATURE: _____

TITLE: _____

PRINT NAME: _____

ATTACHMENT TO ADVANCE REQUEST

Dated:

Borrower hereby represents and warrants to Lender that Borrower's current name and organizational status is as follows:

Name: **MERRIMACK PHARMACEUTICALS, INC.**

Type of organization: Corporation

State of organization: Delaware

Borrower hereby represents and warrants to Lender that the street addresses, cities, states and postal codes of its current owned and leased locations are as follows:

EXHIBIT B

SECURED TERM PROMISSORY NOTE

\$ _____ Advance Date: _____, 201

Maturity Date: May 1/ November 1, 2016

FOR VALUE RECEIVED, **MERRIMACK PHARMACEUTICALS, INC.**, a Delaware corporation (the "Borrower") hereby promises to pay to the order of Hercules Technology Growth Capital, Inc. or the holder of this Note (the "Lender") at 400 Hamilton Avenue, Suite 310, Palo Alto, CA 94301 or such other place of payment as the holder of this Secured Term Promissory Note (this "Promissory Note") may specify from time to time in writing, in lawful money of the United States of America, the principal amount of (\$ _____) or such other principal amount as Lender has advanced to Borrower, together with interest at a floating rate equal to the greater of (a) 10.55% per annum and (b) 10.55% plus the United States Prime Rate as reported in The Wall Street Journal minus 5.25%, not in any case to exceed 12.55% per annum, based upon a year consisting of 360 days, with interest computed daily based on the actual number of days in each month.

This Promissory Note is the Note referred to in, and is executed and delivered in connection with, that certain Loan and Security Agreement dated November 8, 2012, by and between Borrower and Lender (as the same may from time to time be amended, modified or supplemented in accordance with its terms, the "Loan Agreement"), and is entitled to the benefit and security of the Loan Agreement and the other Loan Documents (as defined in the Loan Agreement), to which reference is made for a statement of all of the terms and conditions thereof. All payments shall be made in accordance with the Loan Agreement. All terms defined in the Loan Agreement shall have the same definitions when used herein, unless otherwise defined herein. An Event of Default under the Loan Agreement shall constitute a default under this Promissory Note.

Borrower waives presentment and demand for payment, notice of dishonor, protest and notice of protest under the UCC or any applicable law. Borrower agrees to make all payments under this Promissory Note without setoff, recoupment or deduction and regardless of any counterclaim or defense. This Promissory Note has been negotiated and delivered to Lender and is payable in the State of California. This Promissory Note shall be governed by and construed and enforced in accordance with, the laws of the State of California, excluding any conflicts of law rules or principles that would cause the application of the laws of any other jurisdiction.

BORROWER:

MERRIMACK PHARMACEUTICALS, INC.

By: _____

EXHIBIT C**NAME, LOCATIONS, AND OTHER INFORMATION FOR BORROWER**

1. Borrower represents and warrants to Lender that Borrower's current name and organizational status as of the Closing Date is as follows:

Name: **MERRIMACK PHARMACEUTICALS, INC.**
 Type of organization: Corporation
 State of organization: Delaware
 Organization file number: 4833458

2. Borrower represents and warrants to Lender that for two (2) years prior to the Closing Date, Borrower did not do business under any other name or organization or form except the following:

Name: Merrimack Pharmaceuticals, Inc.
 Used during dates of: Two (2) years prior to the Closing
 Type of Organization: Corporation
 State of organization: Delaware
 Organization file Number: 4833458
 Borrower's fiscal year ends on: December 31
 Borrower's federal employer tax identification number is: 04-3210530

3. Borrower represents and warrants to Lender that its chief executive office is located at One Kendall Square, Suite B7201, Cambridge, MA 02139.

EXHIBIT D**BORROWER'S DEPOSIT ACCOUNTS AND INVESTMENT ACCOUNTS**

Bank Name	Account Number	Branch Address	Company/Subsidiary
Cambridge Savings Bank		1374 Mass Avenue Cambridge, MA 02138 (617) 520-5315	Merrimack Pharmaceuticals, Inc.
UBS		The UBS Tower 1 North Wacker Drive 25 th Floor Chicago, IL 60606 (800) 372-1993	Merrimack Pharmaceuticals, Inc.

EXHIBIT E**COMPLIANCE CERTIFICATE**

Hercules Technology Growth Capital, Inc.
 400 Hamilton Avenue, Suite 310
 Palo Alto, CA 94301

Reference is made to that certain Loan and Security Agreement dated November 8, 2012 and all ancillary documents entered into in connection with such Loan and Security Agreement all as may be amended from time to time, (hereinafter referred to collectively as the "Loan Agreement") between Hercules Technology Growth Capital, Inc. ("Hercules") as Lender and **MERRIMACK PHARMACEUTICALS, INC.** (the "Company") as Borrower. All capitalized terms not defined herein shall have the same meaning as defined in the Loan Agreement.

The undersigned is an Officer of the Company, knowledgeable of all Company financial matters, and is authorized to provide certification of information regarding the Company; hereby certifies, in such capacity, that in accordance with the terms and conditions of the Loan Agreement, the Company is in compliance in all material respects for the period ending _____ of all covenants, conditions and terms and hereby reaffirms that all representations and warranties contained therein are true and correct in all material respects on and as of the date of this Compliance Certificate, except to the extent such representations and warranties expressly relate to an earlier date, after giving effect in all cases to any standard(s) of materiality contained in the Loan Agreement as to such representations and warranties. Attached are the required documents supporting the above certification. The undersigned further certifies on behalf of the Company that if the Financial Statements being delivered herewith are being delivered pursuant to Section 7.1(b) or (c) of the Loan

Agreement, such Financial Statements have been prepared in accordance with GAAP, and are consistent from one period to the next except as explained below.

REPORTING REQUIREMENT	REQUIRED	CHECK IF ATTACHED
Interim Financial Statements	Monthly within 30 days	
Interim Financial Statements	Quarterly within 45 days	
Audited Financial Statements	FYE within 90 days	

Very Truly Yours,

MERRIMACK PHARMACEUTICALS, INC.

By: _____

Name: _____

Its: _____

EXHIBIT F

FORM OF JOINDER AGREEMENT

This Joinder Agreement (the "Joinder Agreement") is made and dated as of _____, 201____, and is entered into by and between _____, a _____ corporation ("Subsidiary"), and Hercules Technology Growth Capital, Inc. as a Lender.

RECITALS

A. Subsidiary's Affiliate, **MERRIMACK PHARMACEUTICALS, INC.** ("Company") has entered into that certain Loan and Security Agreement dated November 8, 2012, with Lender, as such agreement may be amended (the "Loan Agreement"), together with the other agreements executed and delivered in connection therewith;

B. Subsidiary acknowledges and agrees that it will benefit both directly and indirectly from Company's execution of the Loan Agreement and the other agreements executed and delivered in connection therewith;

AGREEMENT

NOW THEREFORE, Subsidiary and Lender agree as follows:

1. The recitals set forth above are incorporated into and made part of this Joinder Agreement. Capitalized terms not defined herein shall have the meaning provided in the Loan Agreement.
2. By signing this Joinder Agreement, Subsidiary shall be bound by the terms and conditions of the Loan Agreement the same as if it were the Borrower (as defined in the Loan Agreement) under the Loan Agreement, mutatis mutandis, provided however, that Lender shall have no duties, responsibilities or obligations to Subsidiary arising under or related to the Loan Agreement or the other agreements executed and delivered in connection therewith. Rather, to the extent that Lender has any duties, responsibilities or obligations arising under or related to the Loan Agreement or the other agreements executed and delivered in connection therewith, those duties, responsibilities or obligations shall flow only to Company and not to Subsidiary or any other person or entity. By way of example (and not an exclusive list): (a) Lender's providing notice to Company in accordance with the Loan Agreement or as otherwise agreed between Company and Lender shall be deemed provided to Subsidiary; (b) a Lender's providing an Advance to Company shall be deemed an Advance to Subsidiary; and (c) Subsidiary shall have no right to request an Advance or make any other demand on Lender.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

[SIGNATURE PAGE TO JOINDER AGREEMENT]

SUBSIDIARY:

By: _____

Name: _____

Title: _____

Address: _____

Telephone:
Facsimile:

LENDER: **HERCULES TECHNOLOGY GROWTH CAPITAL, INC.**

By: _____
Name: _____
Its: _____

EXHIBIT G

ACH DEBIT AUTHORIZATION AGREEMENT

Hercules Technology Growth Capital, Inc.
400 Hamilton Avenue, Suite 310
Palo Alto, CA 94301

Re: Loan and Security Agreement dated November 8, 2012 between MERRIMACK PHARMACEUTICALS, INC. ("Borrower") and Hercules Technology Growth Capital, Inc. ("Company") (the "Agreement")

In connection with the above referenced Agreement, the Borrower hereby authorizes the Company to initiate debit entries for the periodic payments due under the Agreement to the Borrower's account indicated below. The Borrower authorizes the depository institution named below to debit to such account.

DEPOSITORY NAME:	BRANCH:
CITY:	STATE AND ZIP CODE:
TRANSIT/ABA NUMBER:	ACCOUNT NUMBER:

This authority will remain in full force and effect so long as any amounts are due under the Agreement.

MERRIMACK PHARMACEUTICALS, INC.

By: _____
Date: _____



FOR IMMEDIATE RELEASE

Merrimack Pharmaceuticals Reports Third Quarter 2012 Financial Results

Five novel therapeutic candidates progressing through clinical development, including one Phase 3 trial in second line pancreatic cancer and four Phase 2 trials in multiple cancer indications

Proprietary Network Biology platform driving discovery and development of each candidate and its companion diagnostic

Cambridge, Mass., November 14, 2012 — Merrimack Pharmaceuticals, Inc. (NASDAQ: MACK), a biopharmaceutical company discovering, developing and preparing to commercialize innovative medicines paired with companion diagnostics for the treatment of cancer, today announced its third quarter 2012 financial results.

“This past quarter we hit a key milestone of presenting initial clinical data on MM-121 and MM-111 in the combination setting showing that ErbB3 is a promising target,” said Robert Mulroy, President and CEO of Merrimack. “As we look to the year ahead, we are excited to continue moving both of these molecules as well as the rest of our novel pipeline forward in clinical development and to present the first Phase 2 data on MM-121, the most advanced of our Network Biology-derived therapeutics.”

Merrimack will host a conference call on Thursday, November 15 at 11 a.m., Eastern time, to provide a brief update on its development pipeline, including a description of the Phase 2 clinical trial for MM-111, Merrimack’s ErbB3 (HER3) inhibitor for the ErbB2 (HER2) positive setting. The call will also provide a summary of third quarter financials. Investors and the general public are invited to listen to the call by dialing (877) 564-1301 (domestic) or (224) 357-2394 (international) five minutes prior to the start of the call and providing the passcode 55448769. A listen-only webcast of the call can be accessed in the Investor Relations section of Merrimack’s website, <http://investors.merrimackpharma.com>, and a replay of the call will be archived there.

Key Recent Accomplishments, Upcoming Milestones and Conferences

In the past few months, Merrimack achieved a number of significant accomplishments, including the presentation of initial clinical data on both MM-121, Merrimack’s ErbB3 inhibitor partnered with Sanofi, in combination with paclitaxel, and MM-111, in combination with multiple agents, at the European Society for Medical Oncology (ESMO) meeting.

Merrimack anticipates the following milestones in the next 12 months:

- Completion of enrollment and announcement of top line data on the NAPOLI-1 study, MM-398’s global Phase 3 clinical trial in gemcitabine-resistant pancreatic cancer;
- Completion of enrollment in several Phase 2 clinical trials;
- Announcement of top line data from several MM-121 Phase 2 clinical trials;
- Presentation on a Phase 1 monotherapy study of MM-302, Merrimack’s HER2-targeted nanotherapeutic encapsulation of doxorubicin, at the San Antonio Breast Cancer Symposium, December 4-8, 2012;
- Initiation of a Phase 2 clinical trial for MM-111 in second line gastric cancer;
- Initiation of a Phase 1 clinical trial for MM-141, an IGF signaling inhibitor that will represent Merrimack’s sixth novel therapeutic to enter clinical development; and
- Initiation of a Phase 1 clinical trial for MM-DX-929, an imaging diagnostic for Merrimack’s nanotherapeutics.

Merrimack expects to present at the following investor and scientific conferences in the coming months:

- J.P. Morgan SMid Cap Conference, November 29, 2012 in New York, New York;
- San Antonio Breast Cancer Symposium, December 4-8, 2012 in San Antonio, Texas;
- Oppenheimer 23rd Annual Healthcare Conference, December 12-13, 2012 in New York, New York;
- Bank of America Merrill Lynch 2012 Healthcare One-on-One Conference, December 13, 2012 in Denver, Colorado; and
- J.P. Morgan 2013 Healthcare Conference, January 6-10, 2013 in San Francisco, California.

Third Quarter 2012 Financial Results and Financial Outlook

Merrimack reported a net loss of \$23.3 million for the third quarter of 2012, compared to \$18.7 million for the third quarter of 2011. Net loss per share available to common stockholders for the third quarter of 2012, both basic and diluted, was \$0.25 per share, compared to a loss of \$1.81 per share for the third quarter of 2011. This decrease in net loss per share available to common stockholders was primarily attributable to an increase in the number of weighted-average common shares used in computing net loss per share available to common stockholders as a result of Merrimack’s April 2012 initial public offering in which all outstanding shares of Merrimack’s convertible preferred stock were converted into 66,255,529 shares of common stock and in which Merrimack issued 15,042,459 new shares of common stock.

Collaboration revenues for the third quarter of 2012 were \$11.3 million, compared to \$8.6 million for the third quarter of 2011, an increase of \$2.7 million, or 31%. This increase was a result of increases in development, milestone and manufacturing revenues recognized under the 2009 license and collaboration agreement with Sanofi for the development and commercialization of MM-121.

Research and development expenses for the third quarter of 2012 were \$30.9 million, compared to \$23.9 million for the third quarter of 2011, an increase of \$7.0 million, or 29%. This increase was primarily attributable to \$3.9 million of increased overall spending on the MM-398 program related to Merrimack's ongoing Phase 3 clinical trial coupled with \$2.8 million of increased spending on preclinical programs, general research and discovery due to an increase in the number of preclinical programs in the pipeline, and increased costs associated with each preclinical program as they approach clinical development, including increased costs of \$0.8 million due to IND-enabling activities related to MM-141.

General and administrative expenses for the third quarter of 2012 were \$4.3 million, compared to \$3.3 million for the third quarter of 2011, an increase of \$1.0 million, or 30%. This increase was primarily attributable to an increase in labor and labor-related costs, including increased stock compensation expense of \$0.3 million, and increased rent, insurance and pre-commercialization costs.

On November 8, 2012, Merrimack entered into a Loan and Security Agreement with Hercules Technology Growth Capital, Inc. (NYSE: HTGC) pursuant to which a term loan of up to an aggregate principal amount of \$40.0 million is available to Merrimack. The Loan and Security Agreement provides for an initial term loan advance of \$25.0 million, which closed on November 8, 2012, and an additional term loan advance of up to \$15.0 million, which is available at any time through December 15, 2012 upon Merrimack's request. The term loan bears interest at an annual rate equal to the greater of 10.55% and 10.55% plus the prime rate of interest minus 5.25%, but may not exceed 12.55%. The Loan and Security Agreement provides for interest-only payments for twelve months and repayment of the aggregate outstanding principal balance of the loan in monthly installments starting on December 1, 2013 and continuing through May 1, 2016. If Merrimack receives aggregate gross proceeds of at least \$75 million in one or more transactions prior to December 1, 2013, including pursuant to a financing or collaboration, Merrimack may elect to extend the interest-only period by 6 months so that the aggregate outstanding principal balance of the loan would be repaid in monthly installments starting on June 1, 2014 and continuing through November 1, 2016. There were no warrants issued related to the Loan and Security Agreement. In addition, Merrimack paid a fee of \$0.3 million upon closing and is required to pay a fee of \$1.2 million at maturity. At Merrimack's option, Merrimack may elect to prepay all or any part of the outstanding term loan without penalty. In connection with the Loan and Security Agreement, Merrimack granted Hercules a security interest in all of Merrimack's personal property now owned or hereafter acquired, excluding intellectual property but including proceeds from the sale, if any, of intellectual property, and a negative pledge on intellectual property. The Loan and Security Agreement also contains certain representations,

warranties and non-financial covenants of Merrimack. Merrimack received net proceeds of \$24.7 million from the term loan advance on November 8, 2012.

Merrimack expects its existing unrestricted cash and cash equivalents and investments on hand as of September 30, 2012 of \$86.7 million, plus the \$40.0 million term loan made available under the Loan and Security Agreement with Hercules, to be sufficient to fund operations into 2014.

About Merrimack

Merrimack Pharmaceuticals is a biopharmaceutical company discovering, developing and preparing to commercialize innovative medicines paired with companion diagnostics for the treatment of serious diseases, with an initial focus on cancer. Merrimack applies Network Biology, its proprietary systems biology-based approach to biomedical research, throughout the research and development process. Merrimack currently has five targeted therapeutic oncology candidates in clinical development.

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 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 statements about the ability to translate clinical data into future clinical success, Merrimack's anticipated milestones over the next 12 months, Merrimack's presentations at upcoming investor and scientific conferences and expectations regarding the sufficiency of Merrimack's cash balance to fund operating expenses and capital expenditures. 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. Such risks and uncertainties include, among others, the uncertainties inherent in the initiation of future clinical trials, availability of data from ongoing clinical trials, expectations for regulatory approvals, development progress of Merrimack's companion diagnostics, availability of funding sufficient for Merrimack's foreseeable and unforeseeable operating expenses and capital expenditure requirements, and other matters that could affect the availability or commercial potential of Merrimack's drug candidates or companion diagnostics. 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 August 14, 2012 and other reports Merrimack files with the SEC.

Investor & Media Contact: Kathleen Petrozzelli Gallagher, Corporate Communications, Merrimack, 617-441-1043, kgallagher@merrimackpharma.com

MERRIMACK PHARMACEUTICALS, INC. CONDENSED CONSOLIDATED FINANCIAL RESULTS (in thousands, except per share amounts)

	Three Months Ended September 30,	
	2011	2012(1)
Collaboration revenues	\$ 8,582	\$ 11,323
Operating expenses:		
Research and development	23,913	30,885
General and administrative	3,306	4,312
Total operating expenses	27,219	35,197

Loss from operations		(18,637)		(23,874)
Other income and expenses		(87)		554
Net loss		(18,724)		(23,320)
Less net loss attributable to non-controlling interest		(125)		(121)
Net loss attributable to Merrimack Pharmaceuticals	\$	(18,599)	\$	(23,199)
Net loss per share available to common stockholders — basic and diluted	\$	(1.81)	\$	(0.25)
Weighted-average common shares used in computing net loss per share available to common stockholders — basic and diluted		11,389		93,724

CONDENSED CONSOLIDATED BALANCE SHEET DATA

(in thousands)

	<u>December 31, 2011</u>	<u>September 30, 2012(1)</u>
Cash and cash equivalents	\$ 50,454	\$ 27,909
Available-for-sale securities	—	58,759
Total assets	85,299	123,211
Convertible preferred stock	268,225	—
Common stock	118	940
Total stockholders' (deficit) equity	(290,490)	12,797

(1) In April 2012, Merrimack closed the initial public offering of its common stock pursuant to a registration statement on Form S-1, as amended. Merrimack sold an aggregate of 15,042,459 shares of common stock under the registration statement at a public offering price of \$7.00 per share, including 742,459 shares pursuant to the exercise by the underwriters of an over-allotment option. Net proceeds were approximately \$98.1 million, after deducting underwriting discounts and commissions and other offering expenses payable by Merrimack but prior to the payment of accrued dividends on Merrimack's Series B convertible preferred stock. Upon closing the initial public offering, all outstanding shares of Merrimack's convertible preferred stock were converted into 66,255,529 shares of common stock, all outstanding warrants to purchase shares of convertible preferred stock were converted into warrants to purchase shares of common stock and approximately \$4.3 million of cash dividends became payable to the holders of Series B convertible preferred stock.

#