

Foundation Medicine, Inc.

Lock-Up Agreement

_____, 2013

Goldman, Sachs & Co.
J.P. Morgan Securities LLC
As Representatives of the several
Underwriters listed in Schedule 1
to the Underwriting Agreement
referred to below

c/o Goldman, Sachs & Co.
200 West Street
New York, NY 10282-2198

c/o J.P. Morgan Securities LLC
383 Madison Avenue
New York, NY 10179

Re: Foundation Medicine, Inc. - Lock-Up Agreement

Ladies and Gentlemen:

The undersigned understands that you, as representatives (each a "Representative" and together, the "Representatives"), propose to enter into an Underwriting Agreement on behalf of the several Underwriters named in Schedule I to such agreement (collectively, the "Underwriters"), with Foundation Medicine, Inc., a Delaware corporation (the "Company"), providing for a public offering (the "Public Offering") of the Common Stock of the Company (the "Shares") pursuant to a Registration Statement on Form S-1 to be filed with the Securities and Exchange Commission (the "SEC").

In consideration of the agreement by the Underwriters to offer and sell the Shares, and of other good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, the undersigned agrees that, during the period specified in the following paragraph (the "Lock-Up Period"), the undersigned will not offer, sell, contract to sell, pledge, grant any option to purchase, make any short sale or otherwise dispose of any shares of Common Stock of the Company, or any options or warrants to purchase any shares of Common Stock of the Company, or any securities convertible into, exchangeable for or that represent the right to receive shares of Common Stock of the Company, whether now owned or hereinafter acquired, owned directly by the

undersigned (including holding as a custodian) or with respect to which the undersigned has beneficial ownership within the rules and regulations of the SEC (collectively the "Undersigned's Shares") or publicly disclose the intention to take any of the foregoing actions, except as provided herein. The foregoing restriction is expressly agreed to preclude the undersigned from engaging in any hedging or other transaction which is designed to or which reasonably could be expected to lead to or result in a sale or disposition of the Undersigned's Shares even if such Shares would be disposed of by someone other than the undersigned. Such prohibited hedging or other transactions would include without limitation any short sale or any purchase, sale or grant of any right (including without limitation any put or call option) with respect to any of the Undersigned's Shares or with respect to any security that includes, relates to, or derives any significant part of its value from such Shares.

The Lock-Up Period will commence on the date set forth on the cover of the preliminary prospectus used in connection with the road show relating to the Public Offering and continue for 180 days after the public offering date set forth on the final prospectus used for the Public Offering (the "Public Offering Date") pursuant to the Underwriting Agreement.

If the undersigned is an officer or director of the Company, (i) the Representatives agree that, at least three business days before the effective date of any release or waiver of the foregoing restrictions in connection with a transfer of shares of Common Stock, the Representatives will notify the Company of the impending release or waiver, and (ii) the Company has agreed in the Underwriting Agreement to announce the impending release or waiver by press release through a major news service or as otherwise permitted under FINRA Rule 5131 at least two business days before the effective date of the release or waiver. Any release or waiver granted by each Representative hereunder to any such officer or director shall only be effective two business days after the date of such announcement. The provisions of this paragraph will not apply if (a) the release or waiver is effected solely to permit a transfer not for consideration and (b) the transferee has agreed in writing to be bound by the same terms described in this letter to the extent and for the duration that such terms remain in effect at the time of the transfer.

In the event that during the Lock-Up Period, each of the Representatives waive any prohibition on the transfer of shares of Common Stock, or any securities convertible into or exercisable for shares of Common Stock, held by (a) any person or entity that beneficially owns 1% or more of the outstanding shares of Common Stock, (b) any director or officer of the Company (or any member of such director's or officer's immediate family or any trust or estate planning vehicle for the benefit of any such director or officer), or (c) any Holder (as such term is defined in the Second Amended and Restated Investors' Rights Agreement, dated June 20, 2013, by and among the Company and certain security holders of the Company), the Representatives shall be deemed to have also waived the prohibitions set forth in this Lock-Up Agreement that

would otherwise have applied to the undersigned with respect to the same percentage of the undersigned's shares of Common Stock as the relative percentage of aggregate shares held by such party receiving the waiver which are subject to such waiver. The provisions of this paragraph will not apply: (1) unless and until each of the Representatives have first waived more than 1%, in the aggregate, of the Company's total outstanding shares of Common Stock from such prohibitions or (2) if (a) the release or waiver is effected solely to permit a transfer not for consideration and (b) the transferee has agreed in writing to be bound by the same terms described in this Lock-Up Agreement to the extent and for the duration that such terms remain in effect at the time of the transfer, provided that, subject to the exception set forth in clause (1) of this paragraph, any subsequent waiver by the Representatives of the prohibition on the transfer of shares of Common stock or other securities by the transferee shall trigger the provisions of this paragraph regardless of such transferee's level of ownership of the outstanding shares of Common Stock. Furthermore, the provisions of this paragraph will apply in the event that the Representatives grant a release or waiver to allow a holder of Common Stock to participate as a selling stockholder in a follow-on public offering of such shares of Common Stock pursuant to a registration statement on Form S-1; provided that the waiver to the undersigned will be limited to the undersigned's participation in such follow-on public offering and any shares released but not sold in such offering are subject to this Lock-Up Agreement immediately following such follow-on offering. In the event that, as a result of this paragraph, any shares of Common Stock held by the undersigned are released from the restrictions imposed by this Lock-Up Agreement, the Company shall use its commercially reasonable efforts to notify the undersigned within three business days that the same percentage of shares of Common Stock held by the undersigned has been released; provided that the failure to give such notice shall not give rise to any claim or liability against the Company, the Representatives or the Underwriters.

Notwithstanding the foregoing, the undersigned may (a) transfer the Undersigned's Shares (i) acquired in the Public Offering, (ii) acquired in open market transactions on or after the Public Offering Date, (iii) as a *bona fide* gift or gifts, provided that the donee or donees thereof agree to be bound in writing by the restrictions set forth herein, (iv) to any trust for the direct or indirect benefit of the undersigned or the immediate family of the undersigned, or if the undersigned is a trust, to any beneficiary (including such beneficiary's estate) of the undersigned, provided that the trustee of the trust or such beneficiary agrees to be bound in writing by the restrictions set forth herein, and provided further that any such transfer shall not involve a disposition for value, (v) if the undersigned is a corporation, partnership, limited liability company, trust or other business entity (A) to another corporation, partnership, limited liability company, trust or other business entity that is an affiliate (as defined in Rule 405 promulgated under the Securities Act of 1933, as amended) of the undersigned (including, for the avoidance of doubt, a fund managed by the same manager or managing member or general partner or management company or by an entity controlling, controlled by, or under common control with such manager or managing member or general partner or management company as the undersigned or who shares a common investment advisor with the undersigned) or (B) as part of a distribution without consideration by the undersigned to

its stockholders, partners, members or other equity holders, provided that in the case of any transfer contemplated in (A) or (B) above, it shall be a condition to the transfer that (x) each transferee executes an agreement stating that the transferee is receiving and holding such capital stock subject to the provisions of this Lock-Up Agreement, (y) there shall be no further transfer of such capital stock except in accordance with this Lock-Up Agreement and (z) such transfer shall not involve a disposition for value, (vi) by will or intestate succession upon the death of the undersigned, provided that the transferee agrees to be bound in writing by the restrictions set forth herein, (vii) in connection with the "net" or "cashless" exercise or settlement of stock options, restricted stock units or other equity awards (including any transfer for the payment of taxes due as a result of such vesting or exercise whether by means of a "net settlement" or otherwise) pursuant to an employee benefit plan disclosed in the final prospectus used for the Public Offering, provided that any such shares of Common Stock received upon such vesting or exercise shall be subject to the terms of this Lock-Up Agreement, (viii) (A) following the commencement of a tender or exchange offer made to all holders of the Company's capital stock involving a change of control of the Company or (B) upon the consummation of a merger or sale of the Company, regardless of how such a transaction is structured (it being further understood that this agreement shall not restrict the undersigned from entering into any agreement or arrangement in connection therewith, including an agreement to vote in favor of, or tender the Undersigned's Shares or other securities of the Company in, any such transaction or taking any other action in connection with any such transaction), (ix) in connection with the conversion of the outstanding preferred stock of the Company into shares of Common Stock, provided that any such shares of Common Stock received upon such conversion shall be subject to the terms of this Lock-Up Agreement, (x) by operation of law, such as pursuant to a qualified domestic order or in connection with a divorce settlement, provided that each such transferee executes an agreement stating that the transferee is receiving and holding such capital stock subject to the provisions of this Lock-Up Agreement, or (xi) with the prior written consent of each Representative on behalf of the Underwriters, or (b) enter into a written plan meeting the requirements of Rule 10b5-1 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), relating to the sale of securities of the Company, provided that the securities subject to such plan may not be sold and no public disclosure of any such action shall be required or shall be voluntarily made by any person until after the expiration of the Lock-Up Period. In addition, with respect to clauses (a)(i) and (a)(iii) through (a)(vii) above, it shall be a condition to such transfer that no filing under Section 16(a) of the Exchange Act shall be required or voluntarily made during the Lock-Up Period. For purposes of this Lock-Up Agreement, "immediate family" shall mean any relationship by blood, marriage or adoption, not more remote than first cousin. The undersigned now has, and, except as contemplated by clause (a) above, for the duration of this Lock-Up Agreement will have, good and marketable title to the Undersigned's Shares, free and clear of all liens, encumbrances, and claims whatsoever. The undersigned also agrees and consents to the entry of stop transfer instructions with the Company's transfer agent and registrar against the transfer of the Undersigned's Shares except in compliance with the foregoing restrictions.

Notwithstanding anything to the contrary contained herein, this Lock-Up Agreement will automatically terminate and the undersigned will be released from all of his, her or its obligations hereunder upon the earliest to occur, if any, of (i) the Company advises the Representatives in writing, that it has determined not to proceed with the Public Offering, (ii) the Company files an application with the SEC to withdraw the registration statement related to the Public Offering, (iii) the Underwriting Agreement is executed but is terminated (other than the provisions thereof which survive termination) prior to payment for and delivery of the shares of Common Stock to be sold thereunder, or (iv) December 31, 2013, in the event that the Underwriting Agreement has not been executed by such date.

The undersigned understands that the Company and the Underwriters are relying upon this Lock-Up Agreement in proceeding toward consummation of the Public Offering. The undersigned further understands that this Lock-Up Agreement is irrevocable and shall be binding upon the undersigned's heirs, legal representatives, successors, and assigns.

Very truly yours,

GATES VENTURES, LLC

Exact Name of Shareholder



Authorized Signature

26

AUTHORIZED REPRESENTATIVE

Title