

**PRIVATE AND CONFIDENTIAL**

February 23, 2011

Merck Sharp & Dohme Corp.
One Merck Drive
Whitehouse Station, NJ 08889-0100

Attention: Richard Kender, Senior Vice President, Business Develop & Corporate Licensing

Ladies and Gentlemen:

We understand that Merck Sharp & Dohme Corp. (“you”) has requested information regarding Inspire Pharmaceuticals, Inc. (the “Company”) in connection with your consideration of a possible negotiated transaction between you and the Company pursuant to which you or one of your controlled or controlling affiliates would acquire the Company (a “Transaction”). The Company is prepared, subject to the terms and conditions of this letter agreement (this “Agreement”), to furnish you with certain confidential and proprietary information concerning the Company on the terms set forth herein.

1. As a condition to being furnished information by or on behalf of the Company, you and your Representatives (as defined below) shall treat in accordance with this Agreement all information (including, without limitation, oral, written, emails and all other electronic information) concerning the Company or its Representatives that has been or may be furnished to you by or on behalf of the Company or any of its Representatives in connection with a possible Transaction, and all analyses, compilations, forecasts, studies, memoranda, notes, other materials and portions thereof prepared by you or any of your Representatives, or otherwise on your behalf, that contain, reflect or are based upon, in whole or in part, any such information, including, without limitation, any such materials stored in electronic format (collectively, the “Evaluation Material”). The term “Evaluation Material” does not include information that (a) is or becomes generally available to the public other than as a result of a disclosure by you or any of your Representatives, (b) is or becomes available to you on a non-confidential basis from a source other than the Company or its Representatives, provided that such source is reasonably believed by you to not be bound by an obligation of confidentiality (whether by agreement, duty or otherwise) to the Company or its Representatives or (c) you can demonstrate was independently developed by you without reference to, incorporation of, or other use of any Evaluation Material or information from any source that is bound by an obligation of confidentiality (whether by agreement, duty or otherwise) to the Company or its Representatives. As used in this Agreement, the term “Representatives” means (i) when used in relation to the Company, the Company’s direct and indirect parent, subsidiaries and affiliates and its and their respective directors, officers, employees, agents and advisors (including, without limitation, financial and legal advisors, consultants and accountants) and (ii) when used in relation to you, your subsidiaries and affiliates and your and their respective directors, officers, members, general (but not limited) partners, employees, agents, advisors (including, without limitation, financial and legal advisors, consultants and accountants) and any commercial bank or other person engaged by you to provide or arrange potential debt financing in connection with the Transaction (a “Potential Debt Source”). As used in this Agreement, the term “person” shall be broadly interpreted to include the media and any corporation, partnership, company, group, governmental entity, trust, natural person or other entity. As used in this Agreement, the term “affiliate” shall have the meaning ascribed to it in Rule 12b-2 under the Securities Exchange Act of 1934, as amended (the “Exchange Act”).

2. In consideration of being furnished Evaluation Material, you and your Representatives shall keep all Evaluation Material confidential, and you and your Representatives shall not disclose Evaluation Material to any other person, provided that (a) you may disclose Evaluation Material as required by applicable law, regulation or legal process and (b) you may disclose Evaluation Material to any of your Representatives who need to know such Evaluation Material for the sole purpose of evaluating a Transaction on your behalf if prior to any such disclosure (i) you advise such Representative of the confidential nature of the Evaluation Material and the terms of this Agreement, (ii) such Representative agrees with you to keep the Evaluation Material confidential in accordance with the terms hereof and to observe the other terms of this Agreement and (iii) in the case of a Representative that is a Potential Debt Source, such Representative agrees in a writing to the Company to be bound by the terms of this Agreement to the same extent as if it were a party hereto. You and your Representatives shall not provide any Evaluation Material to any potential equity financing source or other co-investor without the Company's prior written consent. In the event that the Company provides such consent with respect to a potential equity financing source or other co-investor, neither you nor your Representatives shall provide any Evaluation Material to such person unless and until such person has executed and delivered to the Company a letter agreement that is substantially identical to this Agreement. You and your Representatives shall not enter into any agreement or arrangement with any potential equity financing source or other co-investor regarding the provision of equity financing or other co-investment, nor shall you or any of your Representatives enter into any discussions with any such person regarding the provision of any equity financing or other co-investment, in each case without the prior written consent of the Company. Evaluation Material shall be used by you and your Representatives solely for the purpose of evaluating a Transaction and shall not be used for any other purpose whatsoever. This Agreement shall apply to your Representatives as if they were direct parties hereto and you shall be responsible for any breach of this Agreement by your Representatives, provided, that you shall not be responsible for any breach of this Agreement by any such Representative who has agreed in writing with the Company to be directly bound by the terms of this Agreement. Neither you nor any of your Representatives shall enter into any exclusivity, "lock-up", "dry-up" or other agreement or arrangement, whether written or oral, with any potential debt financing source that does or could reasonably be expected to directly or indirectly limit, restrict, restrain or otherwise impair the ability of such potential financing source to act as a financing source to any other person considering a transaction involving the Company.

3. In addition, except as required by applicable law, regulation or legal process, neither you nor any of your Representatives shall disclose to any person (except, if and to the extent permitted by the immediately preceding paragraph, to your Representatives and any potential equity financing source or other co-investor) (a) that Evaluation Material has been requested by or furnished or made available to you or your Representatives, (b) the fact that this Agreement exists or the terms hereof, (c) that you are considering a Transaction, (d) that investigations, discussions or negotiations are taking place concerning a Transaction or (e) any of the terms, conditions or other facts or information with respect to a Transaction or any other potential similar transaction involving the Company, including, without limitation, the status or termination thereof.

4. In the event that you or any of your Representatives are required by applicable law, regulation or legal process (including, without limitation, by oral questions, interrogatories, requests for information or documents, subpoena, civil investigative demand or other legal process) to disclose any Evaluation Material or any information of the type described in the immediately preceding paragraph, you shall provide the Company with prompt prior written notice of such requirement. You and your Representatives shall also, to the extent legally permissible, provide the Company as promptly as practicable with a description of the information that may be required to be disclosed (and, if applicable, the text of the disclosure itself) and reasonably cooperate (at Company's expense) with the Company to the extent it may seek to limit such disclosure, including, if requested, by taking all reasonable steps to resist or narrow any such disclosure or to obtain a protective order or other remedy with respect thereto. If a protective order or other remedy is not obtained and disclosure is legally required, you and your applicable Representatives shall (a) disclose such information only to the extent required in the opinion of your or your applicable Representatives' outside counsel and (b) give advance notice to the Company of the information to be actually disclosed as far in advance as is reasonably possible. In any such event, you and your applicable Representatives shall use reasonable efforts to ensure that all Evaluation Material

and all information of the type described in the immediately preceding paragraph that is so disclosed is accorded confidential treatment by the recipient thereof.

5. In the event that you determine not to proceed with a Transaction, you shall promptly inform the Company of that decision and, in that case or at any other time upon the request of the Company (in its sole discretion), you and your Representatives shall promptly deliver to the Company or destroy, at your election, all Evaluation Material, including all notes relating thereto, without retaining any copy thereof. If requested by the Company, you shall certify to the Company that all such material has been so delivered or destroyed in compliance herewith. Notwithstanding the delivery or destruction of the Evaluation Material required by this paragraph, any and all duties and obligations existing under this Agreement shall remain in full force and effect. Notwithstanding the foregoing or any delivery or destruction of any Evaluation Material, your Representatives that are accounting firms may retain solely for compliance purposes copies of the Evaluation Material in their possession in accordance with policies and procedures implemented by such persons in order to comply with applicable law, regulation or professional standards, provided, that any Evaluation Material so retained shall continue to be subject to the terms of this Agreement.

6. You acknowledge that, in your and your Representatives' examination of the Evaluation Material, you and your Representatives will have access to material, non-public information, and that you are aware, and shall advise your Representatives who receive Evaluation Material or are otherwise aware of the subject matter of this Agreement, that state and Federal laws, including, without limitation, Federal securities laws, impose restrictions on the dissemination of such information and trading in securities when in possession of such information.

7. For a period of 12 months from the date hereof, you shall not, nor shall you permit any of your Representatives to, directly or indirectly, (a) engage in any discussion regarding the Company or any of its affiliates with any supplier, vendor, customer or other person with whom the Company has a relationship, other than in the ordinary course of your or your applicable Representative's business consistent with past practice or (b) solicit for employment or hire any named officer or employee at the level of vice president or above of the Company or any of its subsidiaries or affiliates that you or any of your Representatives in connection with your consideration of a Transaction hereunder have discussions with or first obtain information with respect to, provided that this clause (b) shall not preclude you or any of your Representatives from hiring any such officer or employee who (i) has had his or her employment terminated by the Company or any of its subsidiaries or affiliates prior to commencement of employment discussions between you or your applicable Representative and such officer or employee, or (ii) responds to any general solicitation performed by you or your applicable Representative that is not targeted at the Company or any of its subsidiaries or affiliates.

8. Goldman Sachs & Co. ("Goldman") shall have exclusive responsibility for arranging appropriate contacts for due diligence and other purposes regarding your consideration of a possible Transaction. Unless otherwise expressly agreed to in writing by the Company, all communications regarding a Transaction, requests for information concerning the Company or its subsidiaries or affiliates or a Transaction, notices under this Agreement and questions regarding procedures in connection with a Transaction shall be submitted or directed exclusively to the representatives of Goldman specifically identified to you by Goldman as contacts with respect to a Transaction. Under no circumstances shall you or any of your Representatives directly communicate with any director, officer or other employee of the Company or any of its subsidiaries or affiliates regarding any Evaluation Material or a Transaction or any other matter in connection therewith (other than during any management presentation, site visit or other meeting or conference call pre-arranged through Goldman).

9. Neither the Company nor any of its Representatives makes any representations or warranties, express or implied, with respect to the accuracy or completeness of the Evaluation Material, including, without limitation, any forecasts, projections or other forward-looking information included therein. You agree that, other than as may be set forth in any definitive agreement with respect to a Transaction, neither the Company nor its Representatives shall have any liability whatsoever to you or any of your Representatives, including, without limitation, in contract, tort or under Federal or state securities laws, relating to or resulting from the use of the

Evaluation Material by you or your Representatives or any errors therein or omissions therefrom. You and your Representatives are not entitled to rely on any Evaluation Material and only such express representations and warranties regarding Evaluation Material as may be made to you in a definitive written agreement relating to a Transaction, if any, shall have any legal effect, subject to the terms and conditions of such agreement.

10. Each party agrees that no contract or agreement providing for a Transaction shall exist, directly or indirectly, unless and until a definitive written agreement with respect to a Transaction has been executed and delivered by both the Company and you or one of your affiliates. Each party also agrees that unless and until a definitive written agreement with respect to a Transaction has been executed and delivered by the Company and you or one of your affiliates, neither you nor the Company, nor any subsidiary or affiliate of the Company, shall be under any legal obligation of any kind whatsoever with respect to a Transaction by virtue of this Agreement (except for the matters specifically provided herein) or otherwise or by virtue of any written or oral communications with respect to a Transaction by any of the Company's or your Representatives. You agree that neither the Company nor any of its Representatives shall be under any obligation to provide you with any Evaluation Material or to supplement or update any Evaluation Material previously provided. Nothing contained in this Agreement nor the furnishing of any Evaluation Material hereunder shall be construed as granting or conferring any rights by license or otherwise in any intellectual property. You further agree that the Company possesses the right to, and may, in its sole and absolute discretion and for any or no reason at all, reject any and all proposals made by you or your Representatives with respect to a Transaction, terminate discussions and negotiations with you at any time, and conduct any process for a Transaction as it may determine (including, without limitation, negotiating with any other potentially interested person and entering into a definitive agreement with any other person without any prior notice to you or any of your Representatives).

11. For a period of 18 months from the date hereof (the "Restricted Period"), unless you are specifically invited in writing in advance by the board of directors or chief executive officer of the Company or Goldman on Company's behalf, neither you nor any of your affiliates nor any other person acting at your or your affiliates' direct or indirect instruction shall, in any manner, directly or indirectly, (a) acquire, offer to acquire, agree to acquire or make a proposal to acquire, by purchase or otherwise, or borrow, any equity securities, or any direct or indirect rights, options or other derivative interests with respect to any equity securities, of the Company or any subsidiary of the Company or of any successor to or person in control of the Company, or any assets or property of the Company or any subsidiary of the Company or of any such successor or controlling person (except that this restriction shall not apply to acquisitions by you or any benefit plan controlled by you of not more than one percent (in the aggregate) of the then outstanding shares of a Company's common stock); (b) make or in any way participate in any "solicitation" of "proxies" (as such terms are defined in Rule 14a-1 under the Exchange Act, and including any otherwise exempt solicitation pursuant to Rule 14a-2(b) under the Exchange Act) to vote or deliver a written consent with respect to, or seek to advise or influence any person with respect to the voting of or delivering a written consent with respect to, any voting securities of the Company or any of its subsidiaries (provided, that this clause (b) shall not prohibit the delivery by you or any of your Representatives of a revocable proxy or consent in response to a public proxy or consent solicitation made generally to all holders of the Company's equity securities pursuant to, and in accordance with, the applicable rules and regulations under the Exchange Act); (c) make any public announcement with respect to, or publicly support, or solicit or submit a proposal for or offer of (with or without conditions) any merger, consolidation, business combination, tender or exchange offer, recapitalization, reorganization, purchase of a material portion of the assets or properties of or other similar extraordinary transaction involving the Company or any of its subsidiaries or any of their respective securities; (d) form, join or in any way participate in any "group" (within the meaning of Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder) with respect to any securities of the Company or otherwise in connection with any of the foregoing; (e) submit a proposal (including any precatory proposal) to be considered by the stockholders of the Company, or take any action to nominate any person for membership on the board of directors of the Company, or take any action to remove any director from the board of directors of the Company or to change the size or composition of the board of directors of the Company; (f) otherwise act, alone or in concert with others, to seek or propose to control or influence the management, board of directors or policies or affairs of the Company or any of its subsidiaries; (g) disclose any intention, plan,

proposal or arrangement inconsistent with any of the foregoing; (h) advise, assist, encourage or direct any other person to do any of the foregoing, or act as a financing source for or otherwise invest in any person in connection with such person doing any of the foregoing; (i) take any action that could reasonably be expected to require the Company to make a public announcement regarding the possibility of a Transaction with you or any of your affiliates or any of the other events described in this paragraph; or (j) take any action challenging the validity or enforceability of this paragraph, or request the Company amend or waive any provision of this paragraph (including this clause (j)), provided, that (i) you may make confidential requests to the Company to amend or waive any of the limitations set forth in this paragraph, which the Company may accept or reject in its sole discretion, so long as any such request is made in a manner that does not reasonably require the public disclosure thereof by any person and (ii) your chairman or chief executive officer may communicate with the chairman and/or the chief executive officer of Company so long as such communication is made confidentially and any such request is made in a manner that does not reasonably require the public disclosure thereof by any person. Notwithstanding anything in this paragraph to the contrary, if a Fundamental Change Event (as defined below) occurs, you shall have the right to make one or more proposals to the Company regarding any of the matters in this paragraph, including, without limitation, to effect a transaction pursuant to which you or your affiliates would acquire a majority of the outstanding voting securities of the Company or all or substantially all of the assets of the Company and its subsidiaries. A “Fundamental Change Event” means the entry by the Company into a binding definitive agreement with a third person to effect a purchase, tender or exchange offer, merger or other business combination that, if consummated, would result in such third party owning at least a majority of the outstanding voting securities of the Company or all or substantially all of the assets of the Company and its subsidiaries (taken as a whole). You acknowledge that the Evaluation Material is being furnished to you and your Representatives, in part, in consideration of your agreements in this paragraph.

The Company represents to you that prior to the date of this Agreement, it has not entered into a confidentiality or similar agreement (taking into effect any waivers thereunder and amendments thereto) relating to a possible transaction with the Company as contemplated hereunder that contains (i) standstill provisions the duration of which are shorter than the Restricted Period, or (ii) a provision (such provision, a “Public Notice Release Provision”) that would permit the counterparty thereto to be released from its standstill obligations thereunder upon the Company announcing publicly (other than in connection with the execution of a definitive merger or similar acquisition agreement) that it is seeking purchasers for a majority of its outstanding voting securities or all or substantially all of its and its subsidiaries’ assets. The Company covenants and agrees that if it shall hereafter enter into a confidentiality or similar agreement (taking into effect any waivers thereunder and amendments thereto) relating to a transaction with the Company as contemplated hereunder that contains standstill provisions the duration of which are shorter than the Restricted Period or which contains a Public Notice Release Provision, the Company shall (A) provide written notice thereof to you, (B) agree to reduce the duration of the Restricted Period so that it is no longer than the duration of such shorter standstill period, and (C) agree to amend this Agreement to include a Public Notice Release Provision on terms substantially similar to those set forth in such other confidentiality or similar agreement.

12. You recognize and acknowledge the competitive value and confidential nature of the Evaluation Material and that the Company and its affiliates and its and their subsidiaries would be irreparably harmed if information contained therein or derived therefrom is disclosed to any person or used for any purpose, in each case in material breach by you or your Representatives of the terms of this Agreement, or any other material breach by you or your Representatives of this Agreement shall otherwise occur. You further understand and agree that monetary remedies would be inadequate to protect the Company and its affiliates and its and their subsidiaries against any actual or threatened material breach of this Agreement by you or your Representatives, and that Company shall be entitled to an injunction or injunctions to prevent material breaches or threatened material breaches by you or your Representatives of this Agreement and to compel specific performance of this Agreement. Such remedies shall not be the exclusive remedy for actual or threatened breaches of this Agreement but shall be in addition to all other remedies available at law or in equity to the Company and its affiliates and their respective subsidiaries. No failure or delay by any party hereto in exercising any right, power or privilege hereunder shall operate as a waiver thereof, nor shall any single or partial exercise thereof preclude any other or

further exercise thereof or the exercise of any other right, power or privilege hereunder. Notwithstanding anything to the contrary in this paragraph, Company agrees and acknowledges that you and your Representatives do not waive the right to contest, and shall not be prohibited from contesting, whether there has been a material breach by you or your Representatives of this Agreement.

13. If any provision contained in this Agreement or the application thereof to you, the Company, or any other person or circumstance shall be invalid, illegal or unenforceable in any respect under any applicable law as determined by a court of competent jurisdiction, the validity, legality and enforceability of the remaining provisions contained in this Agreement, or the application of such provision to such persons or circumstances other than those as to which it has been held invalid, illegal or unenforceable, shall remain in full force and effect and shall in no way be affected, impaired or invalidated thereby. In the case of any such determination of invalidity, illegality or unenforceability, the parties hereto shall negotiate in good faith in an effort to agree upon a suitable and equitable substitute provision to effect the original intent of the parties.

14. This Agreement shall be governed by, and construed in accordance with, the laws of the State of New York, without giving effect to the principles of conflict of laws thereof that would require the application of the laws of any other jurisdiction. Each party irrevocably submits, on behalf of itself and its Representatives, to the exclusive jurisdiction of the Chancery Court of the State of Delaware (the "Chancery Court"), or, solely to the extent the Chancery Court does not have subject matter jurisdiction, the exclusive jurisdiction of the other state or federal court located in the State of Delaware (such courts together with the Chancery Court, the "Chosen Courts"), for the purposes of any suit, action or other proceeding arising out of this Agreement or a Transaction. Each party irrevocably and unconditionally waives, on behalf of itself and its Representatives, and agrees not to plead or claim, any objection to the laying of venue of any action, suit or proceeding arising out of this Agreement or a Transaction in the Chosen Courts or that any such action, suit or proceeding brought in any such Chosen Court has been brought in an inconvenient forum. Each party irrevocably agrees, on behalf of itself and its Representatives, that service of any process, summons, notice or document by U.S. registered mail to the address set forth in the heading of this Agreement shall be effective service of process for any action, suit or proceeding brought against such party or any of its Representatives.

15. This Agreement contains the entire agreement between the parties concerning the subject matter hereof, and no modification of this Agreement or waiver of the terms and conditions hereof shall be binding upon either party, unless approved in writing by each party. This Agreement shall inure to the benefit of the parties hereto, and their successors and permitted assigns. Any assignment of this Agreement by either party without the prior written consent of the other shall be void.

16. The obligations of the parties under this Agreement shall terminate and be of no further force and effect two years from the date hereof, provided that such termination shall not relieve any party from liability for any breach of this Agreement prior to such termination.

17. This Agreement may be executed in counterparts (including, without limitation, via facsimile or other electronic image scan), each of which shall be deemed to be an original, but both of which shall constitute one and the same agreement and shall become effective when one or more counterparts have been signed by each of the parties and delivered to the other party.

[remainder of page intentionally left blank; signature page follows]

If the foregoing correctly sets forth the agreement between you and the Company, please sign and return a copy of this signature page, whereupon this Agreement shall become our binding agreement.

Very truly yours,

INSPIRE PHARMACEUTICALS, INC.,

By /s/ Adrian Adams

Name: Adrian Adams
Title: President & CEO

AGREED AND ACKNOWLEDGED
as of the date first written above

MERCK SHARP & DOHME CORP.

By /s/ Richard N. Kender

Name: Richard N. Kender
Title: Senior Vice President,
Business Development & Corporate
Licensing