

October 12, 2012

**VIA EDGAR TRANSMISSION**

Securities and Exchange Commission  
100 F Street, N.E.  
Washington, D.C. 20549

Attention: Jeffrey P. Riedler, Assistant Director  
Johnny Gharib  
Bryan Pitko

**Re: MEI Pharma, Inc.  
Registration Statement on Form S-3  
Filed September 21, 2012  
File No. 333-184011**

Ladies and Gentlemen:

This letter is being filed in response to a comment from the staff (the "Staff") of the Securities and Exchange Commission (the "Commission") transmitted by letter dated October 4, 2012, to Daniel P. Gold, PhD, President and Chief Executive Officer of MEI Pharma, Inc. (the "Company"), with respect to the above-referenced Registration Statement on Form S-3 (the "Registration Statement").

This letter recites the Staff's comment and then provides the Company's response to that comment.

- 1. We note that, in addition to the 1,174,536 shares of common stock issued to the selling stockholder pursuant to the Asset Purchase Agreement, you are attempting to register the resale of 1,390,464 shares of common stock that are issuable upon the achievement of certain clinical and regulatory milestones. Please provide your legal analysis as to why the 1,390,464 shares of common stock are ripe for registration. We note that you are attempting to register the resale of such shares when they have not yet been issued and may never be outstanding if the clinical and regulatory milestones set forth in the Asset Purchase Agreement do not occur or if you pay the "Phase 3 Milestone Event" payment entirely in cash.**

Response:

As described in the Registration Statement, on August 22, 2012, the Company consummated its acquisition (the "Acquisition") from S\*Bio Pte Ltd., a Singapore private limited company ("S\*Bio"), of all of S\*Bio's right, title and interest in certain intellectual property and other assets related to compounds SB939, SB1304, SB1354 and SB1502 (the "Acquired Compounds"), pursuant to the terms of an Asset Purchase Agreement, dated August 7, 2012 (the "Asset Purchase Agreement").

Pursuant to the terms of the Asset Purchase Agreement, as part of the consideration for the Acquired Compounds, the Company agreed to make certain milestone payments to S\*Bio upon the achievement of certain clinical, regulatory and net sales-based milestones. Upon the occurrence of the dosing of a patient in a Phase 3 trial (or, under certain circumstances, a Phase 2 trial) of a product containing any of the Acquired Compounds (the “First Milestone Event”), the Company has agreed to pay S\*Bio \$200,000 in cash as well as shares of Common Stock (the “Milestone Payment Shares”) having a market value of \$500,000, as determined in accordance with the terms of the Asset Purchase Agreement. The Company may pay the \$500,000 in Milestone Payment Shares if the Milestone Payment Shares have been registered for resale under the Securities Act of 1933, are listed on Nasdaq and do not require stockholder approval, and such amount is otherwise payable in cash. The Milestone Payment Shares are issuable without the payment by S\*Bio of any additional consideration or the performance by S\*Bio of any additional acts, and without any investment decision by S\*Bio.

General Instruction I.B.3 to Form S-3 provides that an issuer is eligible to use Form S-3 to register “[o]utstanding securities to be offered for the account of any person other than the issuer, . . . if securities of the same class are listed and registered on a national securities exchange or are quoted on the automated quotation system of a national securities association.” In its Compliance and Disclosure Interpretations (“C&DIs”) for the Securities Act Forms, the Staff previously addressed whether shares that are issuable in a merger transaction, but are not yet outstanding, can be registered on Form S-3 pursuant to General Instruction I.B.3. Specifically, Question 116.05 provides:

**Question:** In reliance on Securities Act Section 4(2), a merger transaction will not be registered. May resales of earnout shares to be issued in connection with the merger be registered on Form S-3 pursuant to General Instruction I.B.3 after the consummation of the merger, even though the shares have not been earned and are not outstanding at the time the registration statement is filed?

**Answer:** Yes. [Feb. 27, 2009]

We respectfully submit that the Milestone Payment Shares that may be issuable under the terms of the Asset Purchase Agreement are eligible for registration on Form S-3 immediately following the closing of the Acquisition because such shares are “earnout” shares in accordance with the Staff’s guidance provided in C&DI Question 116.05. In Question 116.05, the Staff confirmed that earnout shares in a merger context are eligible for registration on Form S-3. Although using different terminology, there is no meaningful legal distinction between “earnout shares” and “milestone shares.” In both cases, the issuer is contractually obligated under the terms of the merger or purchase agreement to issue the shares upon the occurrence of future events, whether the events are based on financial metrics, the receipt of regulatory approvals or some other event. Although the fact pattern envisioned by the Staff in Question 116.05 involves a merger transaction, there is no meaningful distinction between the payment of earnout and milestone shares in an acquisition transaction structured as a merger or as an asset purchase. This is consistent with the

equivalent treatment of securities acquired as contingent payments of the purchase price for the sale of an equity interest in a business (as in a merger) or the assets of a business (as in an asset purchase) for purposes of calculating the holding period under Rule 144(d)(3)(iii), which in each case are deemed to have been acquired at the time of such sale if subject only to conditions other than the payment of additional consideration for such securities.

The Milestone Payment Shares are issuable by the Company upon the achievement of the First Milestone Event relating to the Acquired Compounds under the terms of the Asset Purchase Agreement, without any requirement for S\*Bio to provide the Company with any additional consideration or perform any additional acts, nor make any investment decision. Accordingly, the Milestone Payment Shares are eligible for registration on the Company's Registration Statement.

If you have any questions concerning responses to these comments, please contact the undersigned at (858) 792-0865 or Thomas M. Zech at (858) 369-7111.

Sincerely,  
MEI PHARMA, INC.

By: /s/ Daniel P. Gold  
Daniel P. Gold  
President and Chief Executive Officer

cc: Steven A. Navarro  
Finnbarr D. Murphy  
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