



DIVISION OF  
CORPORATION FINANCE

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

April 7, 2014

Via E-Mail

Terrence E. Winters, Ph.D.  
Co-Chairman of the Board &  
Chief Executive Officer  
Vital Therapies, Inc.  
15222 Avenue of Science, Suite B  
San Diego, CA 92128

**Re: Vital Therapies, Inc.  
Amendment No. 5 to Registration Statement on Form S-1  
Filed April 3, 2013  
File No. 333-191711**

Dear Dr. Winters:

We have reviewed your amended registration statement and have the following comments.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

Use of Proceeds, page 41

1. We note your response to our prior comment 4 and the associated revisions to your registration statement. Pursuant to the requirements of Item 504 of Regulation S-K, where you have identified the specific purposes for which you intend to use the offering proceeds, you must disclose the approximate amount of proceeds intended to be used for each such purpose. In this regard, we note your disclosed expectation that the proceeds from the offering and existing cash and cash equivalents will be sufficient to fund development through receipt of initial data from leading Phase 3 trials. Please revise your disclosure in this section to indicate how your use of proceeds from the offering will be allocated towards the clinical development for each of VTI-208, VTI-210, and VTI-212, respectively.

We understand that the company has not yet made such specific determination, but that does not relieve you of your obligation to provide investors with your best estimate,

based on reasonable assumptions, of the manner in which you will allocate investors' funds. You may, as necessary, provide additional disclosure that advises investors of the particular factors and assumptions that form the basis of your estimate, any uncertainty surrounding these amounts and the reasons that the actual use of proceeds could vary. Please make any necessary conforming changes to your Prospectus Summary as well.

2. Please clarify your reference to receipt of "initial data," with respect to the level of clinical development you expect to reach using net proceeds from this offering and your existing cash and cash equivalents. In particular, please revise your disclosure to clarify whether you are referring to preliminary data obtained prior to the completion of Phase 3 trials of VTI-208, VTI-210, and VTI-212, data obtained following completion of such trials, or data obtained at some other point.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Act of 1933 and all applicable Securities Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

Terrence E. Winters, Ph.D.  
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April 7, 2014  
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Please contact Christina De Rosa at (202) 551-3577, Bryan Pitko at (202) 551-3203, or me at (202) 551-3715 with any questions.

Sincerely,

*/s/ Bryan J. Pitko* for

Jeffrey P. Riedler  
Assistant Director

cc: Via E-Mail  
Martin J. Waters  
Wilson Sonsini Goodrich & Rosati,  
Professional Corporation  
12235 El Camino Real, Suite 200  
San Diego, CA 92130-3002