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

DIVISION OF
CORPORATION FINANCE

August 19, 2013

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.
Draft Registration Statement on Form S-1
Submitted July 22, 2013
CIK No. 0001280776

Dear Dr. Winters:

We have reviewed your draft registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. 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 the information you provide in response to these comments and your amended draft registration statement or filed registration statement, we may have additional comments.

General

1. Please note that where we provide examples to illustrate what we mean by our comments, they are examples and not complete lists. If our comments are applicable to portions of the filing that we have not cited as examples, please make the appropriate changes in accordance with our comments.

2. Please submit all exhibits as soon as practicable. We may have further comments upon examination of these exhibits.

3. Please confirm that the images included in your draft registration statement are all of the graphic, visual or photographic information you will be including. If you intend to use

any additional images, please provide us proofs of such materials. Please note that we may have comments regarding this material.

4. Please supplementally provide us with copies of all written communications, as defined in Rule 405 under the Securities Act, that you, or anyone authorized to do so on your behalf, present to potential investors in reliance on Section 5(d) of the Securities Act, whether or not they retain copies of the communications. Similarly, please supplementally provide us with any research reports about you that are published or distributed in reliance upon Section 2(a)(3) of the Securities Act of 1933 added by Section 105(a) of the Jumpstart Our Business Startups Act by any broker or dealer that is participating or will participate in your offering.

5. Please update your filing with financial statements for the quarterly period ended June 30, 2013 as required by Rule 3-12 of Regulation S-X.

Prospectus Summary, page 2

6. At your first reference, please explain what "immortal C3A cells" are and why cell immortality is important to the development and use of ELAD.

Risk Factors

"Ethical considerations require us to conduct open-label clinical trials…," page 14

7. Please revise your disclosure to further discuss the specific modifications you have made to your clinical trials to address the FDA's concern with respect to the open-label nature of your studies.

"The regulatory approval processes of foreign regulatory authorities are lengthy…," page 16

8. Please identify the countries outside of the United States in which you intend to seek regulatory approval for the marketing of ELAD.

"We rely on third party suppliers, and in some instances, a single third party supplier…," page 18

9. We note your disclosure that you rely on single-source supplied for critical components of ELAD. Please identify the specific suppliers of the critical components upon which you are reliant. In addition, to the extent that you are substantially dependent on these relationships, please file any underlying agreement with these parties as an exhibit to your registration statement.

"We could lose our valuable employees and thereby lose our advantage…" page 21

10. Please identify any individuals, other than your executive officers, that you consider "key employees."

"Our patent rights may prove to be an inadequate barrier to competition." Page 24

11. We note that you "hold a granted patent in the United States and elsewhere…" Please expand your disclosure to specify the intellectual property covered by the patent and the type of protection provided. Please also disclose the jurisdictions, other than the United States in which you hold material patents with respect to ELAD therapy. Likewise, please disclose the "certain other jurisdictions" that are reviewing this patent. Please make corresponding changes where you discuss your patent portfolio in "Business" on pages 57 and 69.

"We do not hold any patents covering our C3A cells…" page 25

12. Please indicate whether you have pursued patent protection for you production process in relation to the growth of C4A cells in ELAD cartridges, and if not, why you have not sought such protection. Please also indicate the extent to which the public availability of C3A lines impacts your ability to protect your intellectual property with respect to your proprietary production processes.

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 41
Overview, page 41

13. You state that you "have made significant improvements in the ELAD bedside unit and proprietary cartridge cell growth production process." Please expand your disclosure to describe the significant improvements referred to in that statement.

14. You state on page 1 that you are initiating three Phase 3 trials for VTI 208, VTI 210 and VTI 212. Please disclose the costs incurred during each period presented and to date for each product.

Business, page 56

15. We note your statement that data from Phase 1 and Phase 2 clinical trials showed a trend indicating that ELAD may increase survival rates. We also note your statements elsewhere in the prospectus that the FDA has stated there are insufficient preclinical and clinical data to determine whether ELAD has the potential to provide a clinically meaningful improvement in liver function and that the FDA has expressed its view that preliminary clinical evidence, at this time, does not indicate that ELAD may demonstrate a substantial improvement over standard-of-care. Please revise your disclosure to

indicate how your clinical trials for ELAD are impacted by the FDA's concerns and how you seek to address these concerns.

16. Please define the terms "predefined logrank analytical technique" and "Wilcoxon analytical technique" as used in this discussion.

17. We note that you believe that you "can price ELAD in a range consistent with other currently marketed life saving therapies." Please expand your disclosure to include examples of the life saving therapies to which you refer.

Clinical Experience with ELAD in Acute Liver Failure, page 62

18. For each clinical trial in which patients suffered serious adverse events, please identify the specific adverse event and the number of patients impacted.

19. Please revise your disclosure with respect to the VTI-208 study to highlight that the FDA has expressed concern that the VTI-208 study may not be adequately designed to provide convincing evidence of efficacy if there are significant differences in how ELAD patients and controls are treated during the treatment period and after hospital discharge.

Description of Capital Stock, page 101
Common Stock—Voting, page 101

20. Please expand your description of your common stock to specify the vote required by security holders to take action, as required by Item 202(a)(1)(v) of Regulation S-K.

Shares Eligible for Future Sale, page 106
Lock-Up Agreements, page 106

21. Please file a form of the lock-up agreement as an exhibit to your registration statement.

Critical Accounting Policies and Significant Judgments and Estimates
Share-Based Compensation, page 44

22. Since you have not disclosed an estimated offering price we are deferring a final evaluation of stock compensation and other costs recognized until the estimated offering price is specified. We may have further comments in this regard when the amendment containing that information is filed.

    - Please provide in your filing, containing the IPO price range, a discussion of each significant factor contributing to the difference between the fair value as of the date of each grant and the estimated IPO price range. Reconcile and explain the differences between the mid-point of your estimated offering price range and the fair values included in your analysis.

- Please provide additional disclosure through the date of effectiveness for all additional equity issuances including stock options, warrants, convertible preferred stock and debt, if any, since the latest balance sheet date.
- Please provide us an analysis of your conclusions relating to any beneficial conversion features that may or may not be required to be recorded in connection with any recent convertible preferred stock issuances, including the May and June 2013 offerings.

23. Please revise to disclose how you determined the enterprise value of the Company including the assumptions used at each valuation date.

Consolidated Financial Statements
Report of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm, page F-2

24. Please ask your auditors to revise the audit report to clarify that their audit report covers the amounts shown in your consolidated statements of operations, consolidated statements of cash flows and consolidated statements of comprehensive loss for the period from January 1, 2009 through December 31, 2010, as this is a development stage company.

Future Purchase Rights, page F-23

25. Please provide a reconciliation of the amounts shown on page F-23 to the amounts presented in the consolidated balance sheets of $5.1 million at March 31, 2013 and $0 at December 31, 2012. In this regard, provide a roll forward of this liability from the initial recognition date through the balance sheet date.

If you intend to respond to these comments with an amended draft registration statement, please submit it and any associated correspondence in accordance with the guidance we provide in the Division's October 11, 2012 announcement on the SEC website at http://www.sec.gov/divisions/corpfin/cfannouncements/drsfilingprocedures101512.htm.

Please keep in mind that we may publicly post filing review correspondence in accordance with our December 1, 2011 policy (http://www.sec.gov/divisions/corpfin/cfannouncements/edgarcorrespondence.htm). If you intend to use Rule 83 (17 CFR 200.83) to request confidential treatment of information in the correspondence you submit on EDGAR, please properly mark that information in each of your confidential submissions to us so we do not repeat or refer to that information in our comment letters to you.

You may contact Franklin Wyman at (202) 551-3660 or Mary Mast at (202) 551-3613 if you have questions regarding comments on the financial statements and related matters. Please contact Christina De Rosa at (202) 551-3577, Bryan Pitko at (202) 551-3203, or me at (202) 551-3715 with any other 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
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