



DIVISION OF  
CORPORATION FINANCE

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

February 7, 2020

Craig Kussman  
Chief Financial Officer  
Organovo Holdings, Inc.  
440 Stevens Avenue, Suite 200  
Solana Beach, California 92075

**Re: Organovo Holdings, Inc.**  
**Amendment No. 1 to Registration Statement on Form S-4**  
**Filed January 29, 2020**  
**File No. 333-235683**

Dear Mr. Kussman:

We have reviewed your amended 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 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. Unless we note otherwise, our references to prior comments are to comments in our January 19, 2020 letter.

Amendment No. 1 to Form S-4

Background of the Merger, page 96

1. We note your revised disclosure in response to our prior comment 4. Please disclose how the Organovo special committee considered the fact that Tarveda will still require substantial additional funding to finance its operations. For example, in this regard, it appears this was a consideration in evaluating the proposal from Company L described on pages 111-12.

Tarveda's Product Pipeline, page 200

2. We note your response to our prior comment 9. We believe that it is premature to include the two discovery stage programs in your pipeline table, particularly where there is

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minimal discussion of these programs in your disclosure. Please remove these programs from the table. We do not object to a discussion of each program below the table.

3. Please revise the pipeline table to reflect that you have yet to complete the Phase 1 portion of your Phase 1/2a trial for PEN-866 by shortening the line accordingly.

Madrigal Pharmaceuticals, Inc. License Agreement, page 204

4. We note your disclosure that the royalties are payable, on a product by product and country by country basis, until the latest to occur of expiration of the last to expire valid claim covering such product in such country or expiration of regulatory exclusivity for such product in such country. Please revise your description of this agreement to clarify when the royalty term ends.

Unaudited Pro Forma Combined Financial Statements

Note 4. Adjustments to Unaudited Pro Forma Combined Balance Sheet as of September 30, 2019, page 270

5. We note your response to our prior comment 14. Please tell us how you reflect the issuance of Organovo common shares to effect the reverse merger in the pro forma balance sheet. In this regard, pro forma adjustment F appears to reflect the conversion of Tarveda's outstanding preferred stock into common stock, but it is not clear whether this adjustment also reflects the exchange of outstanding Tarveda common stock into Organovo common stock based on the exchange ratio set forth in the Merger Agreement.
6. As a related matter, pro forma adjustment F also includes the elimination of historical Organovo equity. Please reconcile for us the adjustment to remove \$273.2 million in APIC to Organovo's historical APIC balance of \$304.3 million as of September 30, 2019.

You may contact Julie Sherman at 202-551-3640 or Angela Connell at 202-551-3426 if you have questions regarding comments on the financial statements and related matters. Please contact Ada D. Sarmiento at 202-551-3798 or Mary Beth Breslin at 202-551-3625 with any other questions.

Sincerely,

Division of Corporation Finance  
Office of Life Sciences

cc: Jeffrey C. Thacker, Esq.