

Waleed H. Hassanein, M.D.
President and Chief Executive Officer
TransMedics Group, Inc.
200 Minuteman Road
Andover, MA 01810

Re: TransMedics Group, Inc.
Draft Registration Statement on Form S-1
Submitted on October 19, 2018
CIK No. 0001756262

Dear Dr. Hassanein:

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.

Draft Form S-1 submitted on October 19, 2018

Industry and Market Data, page ii

1. Please tell us whether you commissioned any of the third-party data included in your registration statement.
Our Business, page 1

2. We note your disclosure that you have developed a "substantial" body of clinical evidence supporting effectiveness and safety of your OCS product. Since efficacy and safety are determinations within the authority of the FDA, it is not appropriate to make these
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claims to the extent you have not received approval for certain indications discussed. You may describe the primary and secondary endpoints of any clinical trials, provide data indicating the achievement of the endpoints and any statistical measures relating to the significance of the data.

3. Please provide a more detailed discussion of underlying assumptions used in your addressable market calculation.
Risks Associated with Our Business, page 7

4. Please revise the first bullet point in this section to quantify your operating losses for the most recent period and your total accumulated deficit.
Implications of Being an Emerging Growth Company and Smaller Reporting Company, page 8

5. 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.
Our existing and any future indebtedness..., page 15

6. Please describe the applicable covenants from your credit agreement with more specificity and include a discussion of the potential risks relating to the financial covenant mentioned on page 80.
Use of Proceeds, page 55

7. Please provide more specific disclosure regarding the intended advancements in clinical trials and the continued development and commercialization of your OCS products. As examples only, provide more detail regarding the clinical trials you plan to pursue, whether new or existing, whether you believe the proceeds will be sufficient to complete the clinical trials, and how you intend to continue developing your products.
Dilution, page 60

8. Please expand to disclose how the amounts and percentages in the second table would change assuming the exercise of all outstanding options and warrants.
Net Revenue, page 72

9. Revise here and on page 75 to provide the relative growth rate in revenue of consoles versus disposable sets for each of the three OCS product classes. Also, quantify the extent to which change in price for each OCS product class affected your revenue.

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Stock-Based Compensation, page 84

10. We note your disclosure on page 86 related to the stock options granted between January 1, 2017 and September 29, 2018. When pricing information for this offering is available, please tell us the significant reasons for any material differences between your last fair value determination and the mid-point of the estimated IPO price range.
Clinical Evidence, page 105

11. Please tell us whether your studies or other studies or peer-reviewed articles have revealed any material disadvantages of your product.

12. Please tell us when you expect the study mentioned at the bottom of page 106 to be published.
Patents and Trademarks, page 115

13. Please distinguish between patents that you own and patents that you license. Ensure that the quantification of the patents that you license does not include patents that have expired, and tell us the significance to your business of the patents you license that have recently expired or will expire in 2018.
FDA Premarket Clearance and Approval Requirements, page 120

14. Please clarify what you mean by "extended" and "standard" criteria.
Underwriting, page 170

15. Please specify the "certain other conditions" to the underwriters' obligations mentioned in the second paragraph.
Relationships, page 171

16. Please provide more specific information regarding the past relationships with the

underwriters mentioned in the last paragraph on page 171.
Note 2. Summary of Significant Accounting Policies
Property and Equipment, page F-12

17. Please tell us how you determined that OCS Consoles have an estimated useful life of five years.
Inventory, page F-13

18. You disclose that inventory is valued at the lower of cost or market value and that you establish provisions for excess and obsolete inventory. Please revise the policy to comply with the lower of cost or net realizable value requirements of ASC 330-10-35-1B.
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Additionally, revise to disclose how your accounting for excess or obsolete inventory complies with ASC 330-10-35-14 and SAB Topic 5.BB.
Revenue Recognition, page F-15

19. You disclose that when you loan the OCS Console to customers you do not require minimum purchase commitments. Clarify if any of your sales agreements contain minimum purchase commitment. Please also tell us how you have determined the relative fair value allocated to the OCS Console deliverable in the multiple-element arrangement under ASC 605-25-15-3 and 15-3A.
Note 15. Segment Reporting and Geographic Data , page F-46

20. You discuss throughout the filing that you have organ-specific disposable sets and OCS Consoles. We also see on page 72 that these classes of disposable sets have different selling prices and gross margins. Please revise the filing to provide product line disclosures for each class of the organ-specific disposable sets as required by ASC 280-10-50-40.
You may contact Tara Harkins at 202-551-3639 or Kevin Kuhar, Accounting Branch Chief, at 202-551-3662 if you have questions regarding comments on the financial statements and related matters. Please contact Thomas Jones at 202-551-3602 or Heather Percival, Senior Attorney, at 202-551-3498 with any other questions.

FirstName LastNameWaleed H. Hassanein, M.D.
Corporation Finance
Comapany NameTransMedics Group, Inc.
Electronics and Machinery
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cc: Tara Fisher
FirstName LastName

Sincerely,
Division of
Office of