

April 19, 2021

Robert Spignesi
President and Chief Executive Officer
Rapid Micro Biosystems, Inc.
1001 Pawtucket Boulevard West, Suite 280
Lowell, MA 01854

Re: Rapid Micro

Biosystems, Inc.

Draft Registration

Statement on Form S-1

Submitted March 22,

2021

CIK No. 0001380106

Dear Mr. Spignesi:

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 Registration Statement on Form S-1

General

1. Please 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. Prospectus Summary Overview, page 1

2. Please expand your disclosure on the top of page 2 to describe what a Form 483 is.

Robert Spignesi
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April NameRapid Micro Biosystems, Inc.
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FirstName LastName

3. We note your disclosure that your Growth Direct platform is the only fully automated, high-throughput and secure MQC solution. We further note your disclosure under Competition, on page 106, that you compete with companies that have entered the MQC testing market with alternative automated solutions, such as Interscience. Please revise to reconcile or clarify these disclosures. Our market, page 6

4. Please expand your disclosure to describe how you developed the estimates of your total addressable market, or TAM, where discussed in both the Summary and Business sections of the prospectus.
Risk Factors, page 14
5. We note your disclosure on page 16 in the risk factor, "Our revenue from customers is highly concentrated," that 45.8% of our revenue was generated from two customers and 46.1% of our revenue was generated from three customers in the years ended December 31, 2019 and 2020, respectively. Please expand the Summary and Business disclosure to discuss your dependence on a few major customers. See Item 101(h)(4)(vi) of Regulation S-K.
Market and Industry Data, page 53
6. You state that you have not independently verified market and industry data from third-party sources and that the market definitions employed have not been verified by any independent source. Please note that you are responsible for the entire contents of the registration statement. Please revise your disclosure to remove any implication that you are not responsible for assessing the reasonableness and soundness of the market and industry data and definitions included in your disclosures.
Capitalization, page 56
7. Please revise the table to include debt as part of your capitalization.
Critical accounting policies and significant judgments and estimates, page 75
8. We note from page 66 the description of your consumables and LIMS connection software, especially that the latter is "optional". Referring to the revenue recognition policy on page 76, please clarify herein and in the significant accounting policy on pages F-16-F-17 whether your proprietary consumables and/or LIMS software can be purchased and/or effectively utilized without the Growth Direct System (as described on page 5).
Explain how the Growth Direct system can operate as intended without these products.
Finally, explain why the purchase of the consumables and/or the installation of the software would not constitute a separate performance obligation if there is no binding agreement or requirement to purchase the consumables and/or the software and these products can be used without each other, if true.
Robert Spignesi
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Business License agreement, page 105
9. Please expand your disclosure regarding the Thermo Fisher license agreement to disclose the fees paid to date under the agreement and the royalty rate you are obligated to pay, within a ten percent range. In addition, we note the license will remain in effect until the last to expire licensed patent right. Please separately disclose the expiration year of the licensed patents in the Intellectual Property section.
Intellectual property, page 105
10. Please expand your disclosure to address the following:
disclose the foreign jurisdictions where you have been issued or granted patents and where you have patent applications pending; and
disaggregate the number of your owned patents by type of patent or patent family and

disclose the related expiration dates for each group.
Government Regulation, page 106

11. We note your disclosure in this section that your Growth Direct platform is not directly subject to regulation by the FDA. Please expand your disclosure to explain what regulations the company adheres to in developing its products, including the Growth Direct platform.
Principal stockholders, page 127

12. Please identify the natural person(s) with voting and/or dispositive power over the shares owned by Colony Harvest Ltd. and Endeavour Medtech Growth II LP.

You may contact Jenn Do at 202-551-3743 or Daniel Gordon at 202-551-3486 if you have questions regarding comments on the financial statements and related matters. Please contact David Gessert at 202-551-2326 or Laura Crotty at 202-551-7614 with any other questions.

FirstName LastNameRobert Spignesi
Corporation Finance
Comapany NameRapid Micro Biosystems, Inc.
Sciences
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cc: Wesley C. Holmes
FirstName LastName

Sincerely,
Division of
Office of Life