

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

June 8, 2018

Geoff MacKay
President and Chief Executive Officer
AVROBIO, Inc.
One Kendall Square
Building 300, Suite 201
Cambridge, MA 02139

Re: AVROBIO, Inc.

Registration Statement on Form S-1
Response Dated June 1, 2018

File No. 333-225213

Dear Mr. MacKay:

We have reviewed your June 1, 2018 response to our comment letter dated May 4, 2018 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 or 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.

Letter dated June 1, 2018 regarding determination of fair value of the Company's common stock

October 24, 2017 Valuation, page 3

1. Please tell us why there is not an amount recorded for beneficial conversion feature related to the October 2017 series A preferred stock issuance considering your valuation of \$.99 per share for your common stock and that the preferred stock was issued at \$.79 per share.

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Valuations, page 3

2. Please refer to the discussions of the valuations at various dates on page 3 and 4 beginning with the August 31, 2017 valuation. Provide us the IPO price per share before applying the probability percentage and the discount for lack of marketability. Provide us a description of the non-IPO scenario and the price per share before applying the discount for lack of marketability.

You may contact Rolf Sundwall at 202-551-3105 or Jim Rosenberg at 202-551-3679 if you have questions regarding comments on the financial statements and related matters. Please contact Dorrie Yale at 202-551-8776 or Suzanne Hayes at 202-551-3675 with any other questions.

Division of Corporation Finance Office of Healthcare & Insurance

cc: James Xu