



DIVISION OF  
CORPORATION FINANCE

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

April 30, 2020

Sarah Boyce  
President and Chief Executive Officer  
Avidity Biosciences, Inc.  
10975 N. Torrey Pines Road, Suite 150  
La Jolla, California 92037

**Re: Avidity Biosciences, Inc.**  
**Draft Registration Statement on Form S-1**  
**Submitted April 3, 2020**  
**CIK No. 0001599901**

Dear Ms. Boyce:

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

Our Development Programs, page 2

1. We note that you have four muscle programs in the research and discovery stage. Please provide us your analysis as to why these programs are material enough to be included in your pipeline table. Please also add columns for each of Phase 1, Phase 2 and Phase 3 to the table.
2. Please revise to explain what you mean by "durable, dose-dependent manner" as used in the second paragraph on page 3 and elsewhere in the prospectus.

Our Strategy, page 4

3. We note your disclosure that your strategy is to "rapidly advance" or "rapidly progress" clinical development for some of your muscle programs. Please revise these statements and any similar disclosure to remove any implication that you will be successful in commercializing your product candidates in a rapid or accelerated manner as such statements are speculative. In addition, please identify the development pathways you intend to pursue to expedite approval of your lead candidate, should your Phase 1/2 trial of AOC 1001 planned for 2021 be successful as noted on page 3.

Implications of Being an Emerging Growth Company and a Smaller Reporting Company, page 6

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.

We partially depend on intellectual property licensed from third parties, page 59

5. We note your disclosure regarding an option agreement with the University of Alberta pursuant to which you in-license key patent applications for your Exon 51 skipping Antibody Oligonucleotide Conjugate for Duchenne muscular dystrophy and future product candidates. Please provide a summary of the material terms of this agreement in the Business section and file this agreement as an exhibit or tell us why you do not believe it is required.

Management's Discussion and Analysis of Financial Condition and Results of Operations  
Research Collaboration and License Agreement With Lilly, page 85

6. Please disaggregate the milestones payments into those for development, regulatory, and commercialization for further transparency into the collaboration and license agreement with Lilly.

Critical Accounting Policies and Estimates

Stock Based Compensation

Common Stock Valuations, page 94

7. Once you have an estimated offering price or range, please explain to us how you determined the fair value of the common stock underlying your equity issuances and the reasons for any differences between the recent valuations of your common stock leading up to the IPO and the estimated offering price. This information will help facilitate our review of your accounting for equity issuances including stock compensation and beneficial conversion features.

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Intellectual Property, page 124

8. Please disclose which foreign jurisdiction or jurisdictions you are referring to when you state that you have filed an "international" patent application.

Intellectual Property Relating to Our AOC Product Platform, page 126

9. Please identify the foreign jurisdictions where you have filed patent applications related to your product platform.

Principal Stockholders, page 176

10. Please revise footnote (1) to clarify, if true, that Dr. Wong is the sole person with voting and investment control over the shares held by RTW Investments and footnote (2) to clarify, if true, that Bihua Chen is the sole person with such control over the shares held by Cormorant Asset Management, or revise each to identify all natural person or persons who have voting and investment control of the shares held by these entities.

Notes to the Financial Statements

2. Summary of Significant Accounting Policies

Unaudited Pro Forma Information, page F-8

11. Please tell us why it is appropriate to include the proceeds from the sale of Series C convertible preferred stock in January 2020 and conversion into common stock in the unaudited pro forma information here and throughout the filing as if the transactions had occurred as of December 31, 2019.

You may contact Christine Torney at 202-551-3652 or Mary Mast at 202-551-3613 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: Cheston J. Larson, Esq.