



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

DIVISION OF  
CORPORATION FINANCE

Mail Stop 4720

November 12, 2015

Sean P. Nolan  
President and Chief Executive Officer  
AveXis, Inc.  
2275 Half Day Rd, Suite 160  
Bannockburn, Illinois 60015

Re: AveXis, Inc, Inc.  
Draft Registration Statement on Form S-1  
Submitted October 16, 2015  
CIK No. 0001652923

Dear Dr. Nolan:

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.

Prospectus Summary

1. We note your reference on page 2 to AVXS-101 as your “proprietary, wholly-owned gene therapy product candidate.” However, you state throughout the prospectus that you license the patents and patent applications related to AVXS-101 from third parties. Please delete the term “wholly-owned” from the description on page 2.
2. We note your disclosure on page 122 that for gene therapies, selecting patients with applicable genetic defects is a necessary condition to effective treatment. We also note your belief that diagnoses based on existing genetic tests developed and administered by laboratories certified under the Clinical Laboratory Improvement Amendments are sufficient to select appropriate patients and will be permitted by the FDA. Please revise your prospectus summary to discuss briefly the need for genetic testing and what, if any,

regulatory approvals of any genetic tests will be necessary to advance your product through your clinical trials and potential commercialization. In addition, please make any necessary changes to your risk factors.

Risks Associated with Our Business, page 4

3. Please include a bullet point risk factor to describe briefly the risks relating to your licensed patent portfolio. For example, we note your risk factor disclosure on page 49 that certain patents in the field of gene therapy that may have otherwise potentially provided patent protection for your product candidate will soon expire and potential claims covering AVXS-101 may never issue from a pending application.

Risk Factors, page 11

4. Please add a risk factor describing the disadvantages to stockholders attendant to the exclusive forum provision contained in your proposed restated certificate of incorporation.

The development and commercialization of AVXS-101..., page 15

5. Please revise the first bullet point in this risk factor to state that “the FDA will require additional clinical trials prior to approval of AVXS-101...”

We are in the process of changing our third party manufacturer of AVXS-101, page 31

6. Please advise us as to whether NCH has approved or if the approval of NCH is required for the initiated technology transfer of your current manufacturing process of AVXS-101 to SAFC. We may have additional comments.

If we are unable to build and integrate our new management team..., page 42

7. Please revise this risk factor to clarify, if true, that Dr. Kaspar serves in his position on a part-time basis and state the amount of time he devotes to your business activities. In addition, please specify the nature of any conflicts of interest that may exist as a result of your Chief Scientific Officer working for the company on a part-time basis while maintaining employment elsewhere.

Industry And Other Data, page 71

8. We refer to your statement, “[w]hile we believe that each of these studies and publications is reliable, you are cautioned not to give undue weight to such data.” In order to eliminate any inference that you are not liable for all of the information in your registration statement, please delete this statement from your registration statement.

Use Of Proceeds, page 72

9. In the first bullet point of this section, please state whether the allocated proceeds will allow you to fund your future SMA Type 1 trials for AVXS-101 to completion. If not, please describe how far in the trial process you anticipate the allocated proceeds will allow you to reach.

Common Stock Valuation Methodology, page 89

10. We may have additional comments on your accounting for equity issuances including stock compensation and beneficial conversion features. Once you have an estimated offering price, please provide us an analysis explaining the reasons for the differences between recent valuations of your common stock leading up to the IPO and the estimated offering price.

Contractual Obligations, Commitments and Contingencies, page 99

11. Please include the \$12,250,000 and \$9,600,000 milestone payments related to ReGenX and AskBio licenses, respectively, in the table with explanation of the events that trigger these milestones.

Strategic Collaborators and Relationships, page 113

12. Please expand your disclosure for each of your license agreements to further explain the nature and scope of the intellectual property transferred. For example, for each agreement, please clarify whether the intellectual property includes issued patents or solely patent applications. For each material patent or patent application family, please disclose the type of patent protection, such as composition of matter, use or process. In addition, please identify the applicable jurisdictions of the patents and patent applications and the respective patent expiration dates.

Nationwide Children's Hospital, page 113

13. Please expand your disclosure in this section to include:
  - the amount of the minimum funding obligation for the development of licensed products;
  - a description of NCH's "revisionary rights";
  - a description of the events that would trigger NCH's and OSU's options to require you to repurchase their Class A common stock; and
  - aggregate amounts paid or received to date.

REGENXBIO, page 115

14. Please expand the fourth bullet point in this section to describe the royalty percentages within a ten percent range (i.e., teens, twenties, thirties, etc.).

Asklepios Biopharmaceutical, Inc., page 116

15. Please revise your disclosure to include:
- the amount of the one-time royalty option fee; and
  - aggregate payments to date.

Employment Agreements, page 146

16. We note your disclosure on page F-50 that you have entered into employment agreements with five members of your management team. Please revise your disclosure to briefly describe the material terms of these agreements and kindly file the agreements as exhibits to your registration statement.

Consolidated Balance sheets, F-4

17. Please tell us why you do not disclose the number of shares of redeemable common stock outstanding pro forma at June 30, 2015, and why you include the number of redeemable common stock outstanding at June 30, 2015 in common stock outstanding pro forma at June 30, 2015.

Consolidated Statements of Cash Flows, F-7

18. Please explain to us the distinction between the line items “Employee stock-based compensation” and “Non-cash research and development,” which seems confusing given that there appears to be employee stock-based compensation in both line items.

Patent Costs, page F-13

19. Please tell us how your policy of classifying costs of filing and prosecuting patent applications as research and development is consistent with ASC 730-10-55-2(i).

Restricted Stock Granted to Non-Employees, page F-38

20. Please demonstrate for us how you determined the \$5,749,791 and \$9,512,215 recorded in the year ended December 31, 2014 and the six months ended June 30, 2015, respectively. Also explain your application herein of the accelerated application method as discussed in your stock compensation accounting policy note and your support in the accounting literature for using this method, and reconcile it to your disclosure herein that you recognized compensation expense on a straight-line basis.

Exhibit Index

21. We refer to your Exhibit 10.8 and the incorporation by reference. It appears that information has been redacted from the specified exhibit to REGENXBIO Inc.'s Form S-1. Please revise your exhibit index to remove the incorporation by reference and file the agreement in its entirety as an exhibit to your registration statement. Please note that, if appropriate, you may submit a request for confidential treatment of portions of your exhibits pursuant to Rule 406 under the Securities Act of 1933.

Other Comments

22. Please submit all exhibits as soon as practicable. We may have further comments upon examination of these exhibits.
23. Please confirm that the graphics included in your registration statement are the only graphics you will use in your prospectus. If those are not the only graphics, please provide any additional graphics prior to their use for our review.
24. 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.

You may contact Jacob Luxenburg at (202) 551-2339 or James Rosenberg at (202) 551-3679 if you have questions regarding comments on the financial statements and related matters. Please contact Tara Keating Brooks at (202) 551-8336, Amy Reischauer at (202) 551-3793, or me at (202) 551-3675 with any other questions.

Sincerely,

/s/ Suzanne Hayes

Suzanne Hayes  
Assistant Director  
Office of Healthcare and Insurance

cc: Via E-mail  
Divakar Gupta  
Cooley LLP