



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 4720

June 30, 2016

Johan M. (Thijs) Spoor
President and Chief Executive Officer
AzurRx BioPharma, Inc.
760 Parkside Avenue
Downstate Biotechnology Incubator, Suite 217
Brooklyn, NY 11226

**Re: AzurRx BioPharma, Inc.
Amendment No. 2 to Draft Registration Statement on Form S-1
Submitted June 16, 2016
CIK No. 0001604191**

Dear Mr. Spoor:

We have reviewed your amended 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.

Experts, page 73

1. On page F-11, you state that warrants and contingent consideration were valued via a third-party valuation. Since you appear to fully rely on a third-party expert for these valuations, please name this specialist in your filing and provide their consent as an expert. Refer to Securities Act Sections Compliance and Disclosure Interpretation Question 141.02.

Johan M. (Thijs) Spoor
AzurRx BioPharma, Inc.
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Notes to Consolidated Financial Statements
Note 2 - Significant Accounting Policies
Fair Value Measurement, page F-10

2. In your response to comment 3, you state that a “series” of Black-Scholes Option pricing Models were used in determining the fair value of the contingent consideration. Please revise your disclosure to reflect this fact.

Note 10 – Original Issue Discounted Convertible Notes, page F-17

3. Please tell us how you accounted for the exchange of debt on March 31, 2016. Cite the relevant accounting literature to support your accounting.
4. 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 convertible debt 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 beneficial conversion features.

You may contact Keira Nakada at (202) 551-3659 or Lisa Vanjoske at (202) 551-3614 if you have questions regarding comments on the financial statements and related matters. Please contact Josh Samples at (202) 551-3199 or me at (202) 551-3675 with any other questions.

Sincerely,

/s/ Suzanne Hayes

Suzanne Hayes
Assistant Director
Office of Healthcare and Insurance

cc: David J. Levine, Esq.
Loeb & Loeb LLP