



DIVISION OF
CORPORATION FINANCE

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

June 5, 2015

Via E-mail

James R. Pekarsky
Chief Executive Officer
BiopharmX Corporation
1098 Hamilton Court
Menlo Park, California 94025

**Re: BiopharmX Corporation
Amended Registration Statement on Form S-1
Filed June 1, 2015
File No. 333-203317**

Dear Mr. Pekarsky:

We have reviewed the above-captioned filing and have the following comments.

Capitalization, page 56

1. Please revise your disclosure here and on page 58 to include the number of shares of common stock that were issued as a result of the exercise of warrants in March and April 2015. Please also revise your disclosure here and on page 58 to address the issuance of 54,054 shares of common stock as a result of the exercise of warrants in May 2015.

Dilution, page 58

2. Please revise your disclosure to include the following:
 - You indicate that your historical net tangible book value per share represents the amount of your total tangible assets reduced by the amount of your total liabilities and your Series A preferred stock divided by the total number of shares of your common stock outstanding. It appears that your historical net tangible book value of \$0.5 million or \$0.04 per share of common stock does not include the amount of your Series A preferred stock. Please revise your disclosure accordingly;
 - Please also disclose the total number of shares of your common stock outstanding used to calculate your pro forma net tangible book value, adjusted net tangible book value after this offering and adjusted net tangible book value after this offering and the KIP private placement. Please ensure that your disclosures clearly disclose how the amounts used in your calculations of net tangible book value, pro forma net tangible book value, pro forma as adjusted net tangible book value after this offering, and pro forma as adjusted net tangible book value after this offering and the KIP private placement are derived;

James Pekarsky
BiopharmX Corporation
June 5, 2015
Page 2

- Please revise to disclose the number of additional shares that could be issued if the underwriters were to exercise their option in full; and
- Please disclose the amount of estimated underwriting discounts and commissions and estimated offering expenses included in your dilution calculation.

You may contact Ernest Greene, Staff Accountant at (202) 551-3733 or, in his absence, Lisa Etheredge, Staff Accountant at (202) 551-3424 if you have questions regarding comments on the financial statements and related matters. Please contact Sherry Haywood, Staff Attorney at (202) 551-3345 or, in her absence, me at (202) 551-3397 with any other questions.

Sincerely,

/s/ Jay Ingram

Jay Ingram
Legal Branch Chief

Cc: Via E-mail
Robert Freedman, Esq.