



DIVISION OF
CORPORATION FINANCE

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

May 6, 2015

Via E-mail

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

**Re: BiopharmX Corporation
Registration Statement on Form S-1
Filed April 9, 2015
File No. 333-203317**

Dear Mr. Pekarsky:

We have reviewed your 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 amending your registration statement and 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.

General

1. Please note the updating requirements of Rule 8-08 of Regulation S-X.
2. 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.

Prospectus Cover Page

3. Please include a price range or the method you will use to price the common stock and clarify that the share prices on the OTCQB may not be indicative of the market price of your common stock on a national securities exchange. Refer to Item 501(b)(3) of Regulation S-K.

Outside back cover page of the prospectus

4. Please provide the dealer prospectus delivery obligation legend required by Item 502(b) of Regulation S-K on the outside back cover page of your prospectus.

Risk Factors, page 11

We have identified material weaknesses in our internal control . . . , page 45

5. We note that you have identified certain material weaknesses in your internal control over financial reporting. Please explain in detail what these material weaknesses relate to and the reasons for each error or misapplication of accounting. Please revise this text so that it gives investors a concise, concrete description of the condition that poses a risk. In addition, tell us the dollar amounts relating to the post-closing adjustments that were made to the company's books and records and its financial statements as a result of the material weaknesses.

Management's Discussion and Analysis of Fiscal Condition and Results of Operation, 60

General

6. You incurred \$2.5 million and \$671,000 on research and development activities in fiscal 2014 and 2013. Please disclose the following information for each of your major research and development projects:
 - The nature, objective, and current status of the project and the extent that its success relies on parties other than you;
 - The costs incurred during each period presented and to date on the project;
 - The nature, timing and estimated costs of the efforts necessary to complete the project;
 - The anticipated completion dates (if known or reasonably certain);
 - The risks and uncertainties associated with completing the development projects on schedule, and the consequences to operations, financial position and liquidity if the project is not completed timely; and
 - The period in which material net cash inflows from significant projects are expected to commence.

Capital Resources and Liquidity, page 63

7. You disclosed that your accountants have indicated that there is substantial doubt about your ability to continue as a going concern over the next twelve months from December 31, 2014. Please refer to SEC Codification of Financial Reporting Policies Section 607.02, *Uncertainty About an Entity's Continued Existence* and revise to provide

additional detail including but not limited to the following:

- Prominent disclosures of your financial difficulties and viable plans to overcome these difficulties;
- How you will support your business if you cannot obtain funding;
- Disclosures of any known demand, commitments or uncertainties that will result in your liquidity increasing or decreasing in any material way; and
- A reasonably detailed discussion of your ability or inability to generate sufficient cash to support operations for twelve months after the date of your financial statements.

Description of Capital Stock, page 123

Registration Rights, page 124

8. Please disclose any potential cash penalties under the registration rights agreement, if applicable. Please also disclose any additional penalties that could result from delays in registering your common stock. Refer to FASB ASC 825-20-50-1.

Financial Statements

Intangible Assets, page F-9

9. You disclose that intangible assets related to in-process research and development projects are considered to be indefinite-lived until the completion of the associated research and development efforts. It is unclear from your disclosure when you acquired these intangible assets. Please revise your disclosure to clearly explain how you acquired these intangible assets. You also indicate that as of December 31, 2014, there have been no sales of VI₂OLET and as such, the amortization period associated with the intangible asset has not commenced. Considering your disclosure on page 3, which indicates that you launched VI₂OLET iodine in December 2014 in on-line stores, please tell us how you determined that the amortization period associated with the intangible assets should not have commenced. Please cite the accounting literature used to support your conclusions.

11. Commitments and Contingencies, page F-17

License Agreement, page F-17

10. In March 2013, you executed an amended and restated collaboration and licensing agreement with Iogen, LLC. You disclosed that you capitalized as Intangible Assets, in your ended December 2013, the amount of \$150,000 related to the agreement. No royalties have been paid as of December 31, 2014. Please disclose the balance of this intangible asset as of December 31, 2014. Please also confirm, if true, that this agreement is also the intangible asset related to in-process research and development

projects mentioned in a comment above. Otherwise, please disclose how you are accounting for this intangible asset. Please cite the accounting literature used to support your conclusion.

12. Convertible Redeemable Preferred Stock and Stockholders' Equity, page F-18

11. Please revise to describe the significant redemption provisions of your convertible redeemable preferred stock.

16. Subsequent Events, page F-24

12. In March and April 2015, you amended certain warrants to reduce the exercise price of such warrants from \$3.70 to \$2.50 per share with a corresponding increase in the number of common stock exercisable under the warrants so that the aggregate exercise value of such warrants remained the same. Please tell us how you accounted for this modification of warrants. Please cite the accounting literature used to support your conclusion.

Item 16. Exhibits and Financial Statement Schedules, page II-3

13. Please file your supply agreement with UPM Pharmaceuticals with your next amendment. See Item 601(b)(10) of Regulation S-K.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Act of 1933 and all applicable Securities Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement, please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

James Pekarsky
BiopharmX Corporation
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Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

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.