



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-4631

Mail Stop 4631

November 12, 2015

Via E-Mail

Dr. Philip L. Rose
Chief Executive Officer
XG Sciences, Inc.
3101 Grand Oak Drive
Lansing, MI 48911

**Re: XG Sciences, Inc.
Draft Registration Statement on Form S-1
Submitted October 16, 2015
CIK No. 1435375**

Dear Dr. Rose:

We reviewed your draft registration statement and have the following comments. In some of our comments we may ask you to provide us information so that 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 that our comments apply to your facts and circumstances or do not believe that 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.

General

1. We note that you intend to file by amendment all exhibits. We may have comments on the exhibits after they are filed. Please allow us sufficient time to review these materials before requesting acceleration of the registration statement's effectiveness.
2. Provide us copies of all written communications as defined in Rule 405 under the Securities Act that you or anyone authorized 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.

3. Provide us copies of any artwork that you intend to use as soon as possible for our review and comment. Since we may have comments on these materials, you may wish to consider waiting for comments before printing and circulating any artwork.
4. We understand that you are attempting to register the resale of common shares underlying Series A preferred stock underlying warrants (1,072,720 shares). To the extent that the warrants have not been exercised, such that the Series A preferred stock is not yet outstanding, it is premature to register the resale of the common stock underlying the Series A preferred. To register the resale of underlying common stock, the security immediately overlying the common stock must already be issued and outstanding, or there must be no conditions to the completion of the sale of the overlying securities that are within the control of the investor. Please remove these shares of common stock from the registration statement.
5. We note that you have an ongoing private placement of Series B preferred stock which includes terms for its conversion into common stock. Please provide us your analysis why this ongoing private offering should not be integrated with your registered public primary offering. Specifically address whether your registration statement has or will constitute a general solicitation for purposes of the Series B preferred offering. Refer to Securities Act Release No. 8828 (August 10, 2007) and Questions 139.25 and 139.27 in the Securities Act section of our Compliance and Disclosure Interpretations available on the Commission's website.
6. Please update your financial information in accordance with Rule 8-08 of Regulation S-X.

Prospectus' Outside Front Cover Page

7. Because there is currently no market for your common stock, you must fix the price per share for the secondary offering until your common stock is quoted on the OTCBB. Revise the disclosures throughout the registration statement, including the plan of distribution for secondary offering section, to include a fixed price per share until the common stock is quoted on the OTCBB and at market or negotiated prices thereafter. Ensure that the disclosures throughout the registration statement are consistent.

Prospectus Summary, page 5

8. Disclose your accumulated deficit and history of losses and the fact that you anticipate that your cash and cash equivalents will be sufficient to fund your operations only through January 2016.

Risk Factors, page 11; Penny Stock Regulation, page 99

9. Since you are a penny stock issuer, provide appropriate risk factor disclosure of your penny stock status and the associated risks for investors.

Risk Factors, page 11; Customer Concentration, page F-24

10. Disclosure on page F-24 indicates that you had one customer whose revenue was 37% and 77% of total revenues in 2014 and 2013 and another customer whose revenue was 28% of total revenues in 2014. Advise what consideration you have given to risk factor disclosure of your customer concentration. Additionally, provide disclosure of your dependence on one or a few major customers in the business section. See Item 101(h)(4)(vi) of Regulation S-K.

The JOBS Act allows us to delay the adoption . . . , page 17

11. Since you have stated that you have irrevocably elected not to avail yourself of the extended transition period for new or revised accounting standards, please revise the subheading for this risk factor to focus on the other exemptions and accommodations for emerging growth companies that you may use.

Market and Industry Data and Forecasts, page 22

12. We note the disclosure concerning market and industry data and forecasts included in the registration statement that you obtained from industry publications and surveys. Please disclose whether you funded or commissioned any of this research. If so, file the consent of the third party preparing the information as an exhibit to the registration statement.

Holders of Equity, page 25

13. Where you state that you intend to convert your Series A preferred to common upon the listing of your stock on a qualified national exchange, please clarify, if true, that you intend to convert the Series A once your common stock is quoted on the OTCBB. Please also clarify that notwithstanding your intention to convert the Series A in this manner, holders of the Series A may also convert at their own election at any time before or after the common stock is quoted on the OTCBB.
14. Please disclose the transaction(s) in which selling shareholders purchased the warrants exercisable for 235,897 shares of common stock.

Operating Segment, page 30

15. Please tell us what consideration you have given to providing in the notes to your annual financial statements the entity-wide information in ASC 280-10-50-40 through 50-42.

Going Concern, page 33

16. In the second paragraph, please clarify how long the proceeds of the offering will satisfy your cash requirements, and whether you believe the other anticipated financings will be necessary within the next six months.

Summary Cash Flow, page 44

17. We assume that inclusion of the phrase “as outlined in this memorandum” in the fourth and seventh paragraphs is inadvertent. Please revise.

Description of Our Business, page 46

18. Disclose the amount spent during each of the last two fiscal years on research and development activities, and, if applicable, the extent to which the cost of those activities is borne directly by customers. See Item 101(h)(4)(x) of Regulation S-K.
19. Specify by footnote or otherwise to the diagram on page 53 what periods of time the phrases “Near Term,” “Medium Term,” and “Longer Term” encompass.

Distribution Channels, page 59

20. File as an exhibit to the registration statement a form of the sales agency agreement that you signed with companies in South Korea, Japan, Taiwan, China, and Italy.

Employment Agreements and Potential Payments Upon Termination, page 77

21. File the employment agreements with Messrs. Philip L. Rose and Michael R. Knox as exhibits to the registration statement. See Item 601(b)(10) of Regulation S-K.

Selling Securityholders, page 85

22. Disclose the nature of any position, office, or other material relationship which each selling securityholder has had within the past three years with XG Sciences, Inc. or any of its predecessors or affiliates. For example, disclosure on page 67 indicates that Mr. Michael R. Knox is a co-founder of the company and serves as its senior vice president, secretary, and director. See Item 507 of Regulation S-K.

23. For any selling securityholder that is a legal entity, identify by footnote or otherwise to the tabular presentation the natural person or persons having sole or shared voting and investment control over the securities held by the beneficial owner. For example, refer to Aspen Advanced Opportunity Fund. For guidance you may wish to refer to Question 140.02 in the Regulation S-K section of our Compliance and Disclosure Interpretations available on the Commission's website.

Common Stock, page 89

24. Disclose whether holders of your common stock have cumulative voting rights in the election of directors.

Series A Convertible Preferred Stock, page 89; Series B Convertible Preferred Stock, page 90

25. Please clarify the terms of the conversion mechanisms for each series of convertible preferred stock. We note that you are registering a number of shares of common stock equal to the number of shares of preferred stock that you have outstanding, but it is unclear from the description of the conversion terms that you describe here how you arrived at registering an equal number of shares for resale. For example, please clarify the meaning of the terms "Original Issue Price," "Conversion Price," and "Conversion Rate." Please also clarify whether quotation on the OTCBB that you identify elsewhere as the market upon which you will attempt to be quoted is sufficient to trigger the company's ability to require conversion of the preferred shares.

Procedures for Subscribing, page 99

26. File a form of the subscription agreement as an exhibit to the registration statement.

Legal Matters, page 102

27. Include counsel's address as required by paragraph 23 of Schedule A to the Securities Act.

Where You Can Find More Information, page 102

28. We note the "not necessarily complete" and "qualified in all respects" language. Clarify that statements made in the prospectus about the contents of any contract, agreement, or other document filed as an exhibit to the registration statement include the material provisions of the contract, agreement, or other document.

Note 2- Summary of Significant Accounting Policies, page F-7

Revenue Recognition, page F-8

29. Please expand your disclosure relating to grant contract revenue recognized using the milestone method to include all of the information required by ASC 605-28-50-2. This issue also applies to your interim information.

Exhibits and Financial Statement Schedules, page II-4

30. List the exhibits in sequential order. For example, exhibit 5.1 should precede exhibit 9.1. See Item 601(a)(2) of Regulation S-K.

Signatures, page II-9

31. The registration statement must be signed also by your principal financial officer and controller or principal accounting officer. Further, any person who occupies more than one of the specified positions, for example, principal financial officer and controller or principal accounting officer, must indicate each capacity in which he signs the registration statement. See Instructions 1 and 2 to “Signatures” on Form S-1, and revise.

Closing

You may contact Tracie Towner Mariner, Staff Accountant, at (202) 551-3744 or Terence S. O’Brien, Accounting Branch Chief, at (202) 551-3355 if you have questions about comments on the financial statements and related matters. You may contact Edward M. Kelly, Special Counsel, at (202) 551-3728 or me at (202) 551-3765 if you have any other questions.

Very truly yours,

/s/ Terence O’Brien for

Pamela A. Long
Assistant Director
Office of Manufacturing and Construction

Via E-mail

Clayton E. Parker, Esq.
Matthew Ogurick, Esq.
K&L Gates LLP
200 South Biscayne Boulevard, Suite 3900
Miami, FL 33131-2399