



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 4631

March 10, 2016

Via E-Mail

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

**Re: XG Sciences, Inc.
Pre-effective Amendment 1 to Registration Statement on Form S-1
Filed March 1, 2016
File No. 333-209131**

Dear Dr. Rose:

We reviewed the filing and have the following comments.

Prospectus Summary, page 1; Going Concern, page 30

1. Disclosure on page 3 and elsewhere that you may need to raise an additional \$11 million or more before you are capable of achieving sustainable cash flow from operations is inconsistent with disclosure on page 30 and elsewhere that you may need to raise an additional \$15 million or more before you are capable of achieving sustainable cash flow from operations. Please reconcile the disclosures.

We would be adversely affected by our exposure to customer concentration risk, page 8; Manufacturing Capacity and Concentration of Business, page 52; Note 15, Customer Concentration, page F-27

2. Disclosure that one customer accounted for 20% of revenue and another customer accounted for 12% of revenue in 2015 is inconsistent with disclosure on page 52 that one customer accounted for 15% of revenue and another customer accounted for 9% of revenue in 2015. Additionally, disclosures on pages 8 and 52 appear to be inconsistent with disclosure on page F-27 that one customer accounted for 12% of product revenues and no other customer accounted for more than 10% of product revenues in 2015. Please reconcile the disclosures.

Product Sales Summary, page 33; Order Summary, page 33

3. Disclosure in the second paragraph under “Product Sales Summary” that 2015 orders have increased nearly 50% as compared to the previous year is inconsistent with disclosure in the table under “Order Summary” that 2015 orders have increased 11% as compared to the previous year. Please reconcile the disclosures.

Dave Pendell, page 62

4. Describe briefly Mr. David Pendell’s business experience during the past five years as required by Item 401(e)(1) of Regulation S-K.

Shareholder Agreement, page 63

5. We note your response to comment 8 in our February 11, 2016 letter. In the fourth paragraph of this section, however, where you discuss preemptive rights to acquire shares of all shareholder stock that the company may sell excludes “Excluded Stock” as that term is defined in the sixth paragraph. Please clarify. If the shares of stock that are registered in this transaction are not “Excluded Stock” for purposes of the preemptive rights provision, please revise to respond to comment 8.

Shareholder Agreement, page 73

6. Update the disclosure to summarize the principal provisions of the February 26, 2016 amendment. Alternatively, provide cross reference to disclosure elsewhere in the registration statement.

Direct Sales Efforts by company without Sales Agents, page 88

7. Please identify your officers and directors who will conduct the offering on your behalf and will rely on Rule 3a4-1 to do so without registering as broker-dealers.

Exhibits 10.7 and 10.12

8. You did not file exhibit A to exhibit 10.7, and you did not file addendum A to exhibit 10.12. Please refile the exhibits, including attachments, in their entirety.

Exhibits 10.37, 10.38, and 99.1

9. We note the “Provided herewith” language in the exhibit index. Revise the exhibit index to indicate that exhibit 10.37 was filed on January 27, 2016 and that exhibits 10.38 and 99.1 were filed on March 1, 2016.

Exhibit 23.1

10. The consent refers to a report date of February 29, 2016. However, the date of the report included in the filing appears to be March 1, 2016. Please address the discrepancy.

Closing

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 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, if 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.

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 and the Securities Exchange Act 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.

Dr. Philip L. Rose
XG Sciences, Inc.
March 10, 2016
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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/ Pamela A. Long

Pamela A. Long
Assistant Director
Office of Manufacturing and Construction

Via E-mail

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