



DIVISION OF
CORPORATION FINANCE

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

April 11, 2013

Via E-Mail

Brian Tuffin
Chief Executive Officer
Fuse Science, Inc.
6135 NW 167th Street, #E-21
Miami, FL 33015

**Re: Fuse Science, Inc.
Registration Statement on Form S-1
Filed March 22, 2013
File No. 333-187491**

Dear Mr. Tuffin:

We have limited our review of your registration statement to those issues we have addressed in our 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. Where 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. We note that you are registering the resale of 71,137,568 shares of your common stock by various selling shareholders. Given the size of the proposed offering relative to the number of shares outstanding held by non-affiliates, the nature of the offering and the selling shareholders, the transaction appears to be a primary offering. Because you are not eligible to conduct a primary offering on Form S-3 you are not eligible to conduct a primary at-the-market offering under Rule 415(a)(4).

If you disagree with our analysis, please advise the staff of the company's basis for determining that the transaction is appropriately characterized as a transaction that is eligible to be made under Rule 415(a)(1)(i). In your analysis, please refer to Securities Act C&DI 612.09 and address the following among any other relevant factors:

- how long the selling shareholders have held the shares;
- the circumstances under which they received them;

- their relationship to the issuer;
- the amount of shares involved;
- whether the sellers are in the business of underwriting securities;
- whether under all the circumstances it appears that the seller is acting as a conduit for the issuer.

We also note that in July 2012 you registered the resale offering of an additional 35,792,770 shares of your common stock by several of the same selling shareholders as in the instant offering. Please inform us as to whether the selling shareholders have completed the resale of all of the shares in the July 2012 offering. Please note that we will consider the shares registered in the July 2012 offering as part of the instant offering if the resale of these shares by selling shareholders was not completed 60 days prior to the filing of the instant registration statement.

Prior Transactions with Selling Stockholders, page 16

2. In the table on page 16, please clarify:
 - the number of shares of common stock that were outstanding prior to each of the June 2011 Round I Financing and the February 2012 Financing; and
 - the number of shares of common stock that were outstanding prior to each financing and held by persons other than the selling shareholders, affiliates of the company, or affiliates of the selling shareholders.

Non-affiliated owners and previously registered shares..., page 17

3. In your table on page 17, please identify the number of shares outstanding prior to the convertible note transaction that are held by persons other than the selling shareholders, affiliates of the company, and affiliates of the selling shareholders. In addition, the table appears to indicate that no shares were previously registered for resale by the selling shareholders in prior registration statements, that no shares are currently held by selling shareholders, and that no shares were previously sold in resale transactions by the selling shareholders. Please reconcile these amounts with the statements elsewhere in the document, including the description of the February 2012 Financing, the related July 2012 registration statement, and your selling shareholders table.

Selling Stockholders, page 23

4. We note that the table on page 23 lists 70,989,158 shares to be registered for resale by the selling shareholders. Please reconcile this with the 71,137,568 shares registered in the fee table and referenced elsewhere in the registration statement.

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

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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.

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.

Please contact Amy Reischauer at (202) 551-3793, Bryan Pitko at (202) 551-3203 or me at (202) 551-3715 with any other questions.

Sincerely,

/s/ Bryan J. Pitko for

Jeffrey P. Riedler
Assistant Director

cc: Via E-Mail
Dale S. Bergman
Roetzel & Andress
350 East Las Olas Blvd., Suite 1150
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