



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

DIVISION OF
CORPORATION FINANCE

Mail Stop 3030

April 13, 2016

Via E-mail

Wes Brazell
Chief Financial Officer
TearLab Corporation
9980 Huennekens Street, Suite 100
San Diego, CA 92121

**Re: TearLab Corporation
Registration Statement on Form S-1
Filed March 22, 2016
File No. 333-210326**

Dear Mr. Brazell:

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. 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.

Fee Table

1. We note your disclosure on your prospectus cover page and on page 10 that you are registering the common shares underlying the Series A warrants. Please revise your fee table to include the registration of these common shares.

Prospectus Cover Page

2. Please disclose here the rate at which the Series A preferred stock is convertible into common stock. We note the disclosure on page 65 that each share of preferred stock is convertible into 10 shares of common stock; however, such information is not referenced here.

3. We note the disclosure on page 25 regarding your intention to seek stockholder approval to increase the number of authorized shares of common stock to “allow for the exercise of the Series A warrants” you intend to issue. If you need these additional authorized shares to satisfy your obligations in the transaction you are registering here, please obtain shareholder approval of the increase before requesting acceleration of your registration statement.
4. Please revise your filing to include all information except that which can be excluded pursuant to Rule 430A. As one example only, we note the disclosure on the cover page regarding your offering of up to \$15 million of units. Please revise to disclose the volume (i.e., number) of units, as well as the number of each component part.

The Offering, page 10

5. Please revise your disclosure to clarify the purpose of the structure of this transaction. For example, revise to clarify the purpose of offering two classes of units and the component securities as well as the purpose of the ownership limitation applicable to purchasers.

We expect to ask our stockholders to approve..., page 25

6. The heading of this risk factor refers to risks created by two separate events—an increase to your authorized shares and a reverse stock split. However, the text that follows discusses the risks from only one of those events. Please revise to discuss the risks created by the other event.

Incorporation of Certain Information by Reference, page 74

7. You indicate on the cover page that you are an “accelerated filer.” Because you are not a “smaller reporting company,” it appears you are ineligible to incorporate by reference future filings, as it appears you are attempting to do in the paragraph following the bullet points. See Item 12(b) of Form S-1. Please revise accordingly.

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.

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 Heather Percival at (202) 551-3498 or Geoff Kruczek, Senior Attorney, at (202) 551-3641 with any questions.

Sincerely,

/s/ Geoff Kruczek for

Amanda Ravitz
Assistant Director
Office of Electronics and Machinery

cc: Daniel Horwood
Wilson Sonsini Goodrich & Rosati