



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

DIVISION OF
CORPORATION FINANCE

Mail Stop 3030

July 14, 2016

Via E-mail

Robin C. Stracey
Chief Executive Officer
Cesca Therapeutics Inc.
2711 Citrus Road
Rancho Cordova, CA 95742

**Re: Cesca Therapeutics Inc.
Registration Statement on Form S-3
Filed June 29, 2016
File No. 333-212314**

Dear Mr. Stracey:

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.

Incorporation of Information by Reference, page 5

1. Please incorporate by reference your current report on Form 8-K filed on June 20, 2016.

Description of Debt Securities, page 14

2. We note your disclosure that there may be circumstances under which you intend not to issue your debt securities pursuant to an indenture. Please note that "an indenture which limits the aggregate principal amount of securities at any time outstanding thereunder to \$10,000,000" is one of the conditions for exemption under Section 304(a)(9) of the Trust Indenture Act. Please revise your disclosure accordingly.

Exhibit 5.1

3. When offering Units comprised of underlying securities, the legality opinion must address the legality of the issuance of the Unit itself, in addition to each component. Please provide an opinion that addresses the legality of the Units. See Section II.B.1.h of Staff Legal Bulletin No. 19.
4. Please file an opinion that does not include the limitation on reliance in the penultimate sentence of this exhibit. See Section II.B.3.d of Staff Legal Bulletin No. 19.

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.

Robin C. Stracey
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July 14, 2016
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Please contact Tim Buchmiller at (202) 551-3635 or me at (202) 551-3617 with any questions.

Sincerely,

/s/ Russell Mancuso

Russell Mancuso
Branch Chief
Office of Electronics and Machinery

cc: Evan Y. Ng., Esq.
Dorsey & Whitney LLP