



DIVISION OF
CORPORATION FINANCE

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

January 12, 2016

Via E-mail

James Caruso
President and Chief Executive Officer
Cellestar Biosciences, Inc.
3301 Agriculture Drive
Madison, WI 53716

**Re: Cellestar Biosciences, Inc.
Registration Statement on Form S-1
Filed December 18, 2015
File No. 333-208638**

Dear Mr. Caruso:

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.

The Offering, page 4

1. We note that you intend to offer an as-yet-undetermined number of shares of common stock. We further note that, pursuant to the definitive proxy statement on Schedule 14A you filed on January 7, 2016, you intend to hold a special meeting of stockholders on February 8, 2016 to enable you to effect a reverse stock split that will ensure you have a sufficient number of authorized but unissued shares to complete this offering. Please confirm that you will not request acceleration of the effective date of your registration statement until you have obtained shareholder approval of and subsequently undertaken a reverse stock split such that you will have sufficient authorized shares to conduct the offering.

Exhibit Index

2. We note that you intend to file your opinion of counsel (exhibit 5.1) by amendment. Please confirm that you will file this opinion prior to requesting acceleration of the effective date of your 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 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.

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You may contact Scot Foley at (202) 551-3383, Mary Beth Breslin at (202) 551-3625 or me at (202) 551-3675 with any questions.

Sincerely,

/s/ Mary Beth Breslin for

Suzanne Hayes
Assistant Director
Office of Healthcare and Insurance

cc: Paul Bork, Esq.
Foley Hoag LLP
155 Seaport Boulevard
Boston, Massachusetts 02210