



DIVISION OF
CORPORATION FINANCE

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

Via Facsimile and U.S. Mail

March 25, 2011

Sharon A. Barbari
Corporate Secretary
Cytokinetics, Incorporated
280 East Grand Avenue
South San Francisco, California 94080

Re: Cytokinetics, Incorporated
Preliminary Proxy Statement on Schedule 14A
Filed March 17, 2011
File No. 000-50633

Dear Ms. Barbari:

We have limited our review of your preliminary proxy statement to the issue we have addressed in our comment. Please respond to this letter by amending your proxy statement accordingly. If you do not believe our comment is applicable 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 proxy statement or any information you provide in response to this comment, as applicable, we may have additional comments.

Proposal Three, page 5

1. Your proposal to amend your Certificate of Incorporation to increase the number of authorized shares of common stock does not state whether you have any current plans, agreements, understandings, etc. with respect to the additional shares you propose to have authorized. If you have any such plans, agreements, understandings, etc., please note this in your disclosure and describe them. If you have none, please include a statement to that effect.

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.

Sharon A. Barbari
Cytokinetics, Incorporated
March 25, 2011
Page 2

Please contact Scot Foley at (202) 551-3383 or me at (202) 551-3715 with any questions.

Sincerely,

Jeffrey Riedler
Assistant Director