

March 5, 2009

By EDGAR and Federal Express

U.S. Securities and Exchange Commission
Division of Corporation Finance
100 F. Street, N.E.
Mail Stop 6010
Washington, D.C. 20549
Attention: Jeffrey P. Riedler
Mike Rosenthal

Re: Cytokinetics, Incorporated
Form 10-K filed March 12, 2008 and
Definitive Proxy Statement filed April 2, 2008
Response to SEC Comment Letter dated January 26, 2009
File No. 000-50633

Ladies and Gentlemen:

Cytokinetics, Incorporated (the “**Company**”) provides this response to the comments of the staff (the “**Staff**”) of the Securities and Exchange Commission (the “**Commission**”) contained in the Staff’s letter dated January 26, 2009 (the “**Staff Letter**”), relating to the above-referenced Form 10-K and Definitive Proxy Statement filed by the Company. In response to the Staff’s comments, we have reproduced below the comments set forth in the Staff Letter and followed each comment with our response. The numbered paragraphs of this letter set forth below correspond to the numbered paragraphs of the Staff Letter. References to “we,” “our” or “us” mean the Company or its advisors, as the context may require.

Consistent with the preliminary telephonic discussion between the Staff and our counsel at Wilson Sonsini Goodrich & Rosati, P.C., on December 10, 2008, we propose to include applicable additional or modified disclosure resulting from the Staff’s comments in the Company’s future filings with the Commission, rather than through an amendment to prior filings. As presented in more detail below, we expect the first of such future filings to be the proxy statement prepared in connection with the Company’s 2009 annual meeting of stockholders.

Schedule 14A

Executive Compensation, page 23

COMMENT 1:

- We note your response to our original comment contains some individual and corporate goals and their relation to elements of compensation. However, certain phrases like, "such as" and "for example" indicate that the goals listed here are not a comprehensive list of those used in determining executive compensation. Please revise your disclosure in this section further to include all the individual and corporate goals for the named executive officers that contributed to their compensation, and clarify how the level of achievement of those goals related to the level of compensation awarded to each named executive officer. Also, please disclose the individual achievement level attained by Dr. Wolff as you have for the other two named executive officers whose compensation was based on individual goals.**

RESPONSE:

With respect to the Staff's initial comment, the use of exemplary language in our January 16, 2008 letter was not intended to indicate that we would only list some of the goals of our named executive officers. The use of such language only reflected that the actual disclosures for the Company's next proxy have not yet been finalized.

As requested by the Staff, we intend to include in our disclosure for this section the predetermined individual and corporate goals for the named executive officers, as well as other circumstances and developments, that materially contributed to their compensation. As noted in our January 16, 2009 letter, in setting compensation for the named executive officers, the Compensation Committee takes into account achievement levels with respect to specific predetermined corporate and individual goals and other relevant circumstances and developments, e.g., the implementation in 2008 of a strategic reduction in force that was unplanned at the start of the year when 2008 individual and corporate goals were established.

With respect to Dr. Wolff and the other named executive officers, we will disclose the respective individual achievement levels attained.

Should you have any further questions or comments, please do not hesitate to contact me at (650) 624.3015.

Sincerely,

Cytokinetics, Incorporated

/s/ Michael Rabson Ph.D.

Michael Rabson, Ph.D.
Senior Vice President, Business Development
and Legal Affairs, and General Counsel

cc: Michael O'Donnell, Esq.
Alexander Phillips, Esq.
Wilson Sonsini Goodrich & Rosati, P.C.

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