

January 16, 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
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 December 9, 2008 (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 Company’s Annual Report on Form 10-K for the year ending December 31, 2008 and the proxy statement prepared in connection with the Company’s 2009 annual meeting of stockholders.

In addition, as requested by the Staff Letter, please note that the Company hereby acknowledges that:

- the Company is responsible for the adequacy and accuracy of the disclosure in the filings;
 - Staff comments or changes to disclosure in response to Staff comments do not foreclose the Commission from taking any action with respect to the filings; and
 - the Company may not assert Staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.
-

Patents and Other Intellectual Property, page 21

COMMENT 1: Please disclose expiration dates of your material patents. Alternatively, you may disclose a range of expiration dates for groups of patents related by technology or product.

RESPONSE: In its Annual Report on Form 10-K for 2008, for each of its drug candidates in clinical development, the Company will identify the U.S. patent(s) covering the applicable drug candidate, and indicate whether it has additional patents or patent applications relating to the methods of making or using such drug candidate. In addition, with respect to U.S. patent expiration dates, the Company will provide disclosure comparable to the following:

With regard to Cytokinetics' oncology drug candidates currently in clinical trials, the U.S. patent covering *ispinesib* will expire in 2020, unless extended, and U.S. patent covering SB-743921 will expire in 2023, unless extended. However, both *ispinesib* and SB-743921 are still in clinical development and have not yet been approved by the FDA. If either of these drug candidates is approved, then pursuant to 35 USC 156, Cytokinetics may apply for an extension of the U.S. patent term for a patent covering the approved drug, which extension could extend the term of the applicable patent by up to a maximum of 5 additional years.

With regard to Cytokinetics' drug candidates directed to muscle biology targets, U.S. patent applications are pending but have not yet issued. At present, it is not known or determinable whether patents will issue from any of these applications or what the expiration dates would be for any patents that do issue.

Option Exercises in 2007, proxy page 31

COMMENT 2: Item 402(g) of Regulation S-K requires disclosure of both option exercises and stock vested. We note that the disclosure you provide only includes option exercises from 2007. However, it appears there are a number of stock option grants outstanding and vesting monthly. Please revise your disclosure in this table to include vested stock.

RESPONSE: We agree with the Staff's statement that Item 402(g) of Regulation S-K requires disclosure of both option exercises and stock vested in the Option Exercises and Stock Vested Table. Items 402(g)(2)(iv) and (v) state that, "The Table shall include: The number of shares of stock that have vested (column (d)); and the aggregate dollar value realized upon vesting of stock, or upon the transfer of an award for value (column (e))." We respectfully note that Item 402(a)(6)(i) defines "stock" as follows: "instruments such as common stock, restricted stock, restricted stock units, phantom stock, phantom stock units, common stock equivalent units or any similar instruments *that do not have option-like features*, and the term option means instruments such as stock options, stock appreciation rights and similar instruments with option-like features." (emphasis added)

No named executive officers of the Company held shares of vested or unvested Company stock, as defined in Item 402(a)(6)(i), during 2007; hence there were no instances of stock vesting in 2007 to disclose pursuant to the requirements of Item 402. Consequently, the Company omitted columns (d) and (e) from the Option Exercises and Stock Vested Table.

Schedule 14A

Executive Compensation, page 23

COMMENT 3: Please revise your discussion to more specifically describe your corporate and each named executive officers' individual goals. The description should be quantified to the extent that the goals were quantified.

Please disclose the extent to which named executive officers accomplished both corporate and individual goals and explain how you considered these accomplishments when awarding salary increases, bonuses and stock options. For example:

- You state that, "Salary increases effective March 1, 2008, as determined at the Committee's February 29, 2008 meeting, were based on the 2007 performance of each named executive officer, and were based on a review of each officer's respective performance against both the Company's goals and the individual's goals"; and
- You state that, "On February 29, 2008, the Committee awarded our executive officers options to purchase shares of our Common Stock in recognition of their contributions during 2007".

RESPONSE: With respect to the first portion of the Staff's comment regarding corporate and individual goals, in future filings we will provide the following level of detail:

Corporate Goals. Our corporate goals are established at the beginning of each calendar year and are intended to correspond with deliverables expected to return both near and long term shareholder value, such as commencement and completion of clinical trials for our drug candidates CK-1827452, *ispinesib* and SB-743921; completion of corporate partnering arrangements; receipt of funds from partnered programs or equity capital markets; advancement of research programs to defined stages; clinical candidate selection; pre-regulatory filing deliverables; and financial achievements such as closing the fiscal year with sufficient going forward cash to cover the next year's budgeted expenditures.

The Compensation Committee does not use a rigid formula in determining the Company's performance relative to its goals but assesses the degree of success achieved with respect to each of these goals. The Committee considers the extent of actual results against the specific deliverables associated with each objective, the extent to which the objective was a significant stretch goal for the organization, and whether significant unforeseen obstacles or favorable circumstances altered the expected difficulty of achieving the desired results. In addition, the Compensation Committee takes into consideration other factors which may have made certain stated goals more or less important to the Company's success and other accomplishments by the Company during the year which, although not included as part of the formal goals, are nonetheless deemed important to the Company's short and long term success. From this process, the Committee ultimately determines a percentage that it believes fairly represents the Company's achievement level for the prior year.

Individual Goals. Individual goals for each named executive officer (NEO) are derived from the corporate goals that relate to his or her functional area (except for the CEO, who has no individual goals apart from the corporate goals). For example, Dr. Wolff's goals relate to specific accomplishments with respect to planned and on-going clinical trials; Dr. Morgans' goals relate to manufacturing of sufficient material to support planned and on-going clinical and preclinical studies, the conduct of certain

preclinical studies to support potential regulatory filings for our compounds and the advancement of certain research programs; and Ms. Barbari's goals relate to specific activities in maintaining appropriate cash reserves, gaining access to additional equity capital and ensuring compliance with internal controls as required by Sarbanes-Oxley.

As with the corporate goals, no rigid formula is used in assessing each NEO's success relative to goals. The CEO and Committee consider the extent of results achieved against the specific deliverables associated with each objective, the extent to which the objective was a significant stretch goal for the individual, and whether significant unforeseen obstacles or favorable circumstances altered the expected difficulty of achieving the desired results. In addition, other factors are considered which may have made some stated goals more or less important to the Company's success and other accomplishments by the individual during the year which, although not included as part of the formal goals, are nonetheless deemed important to the Company's short and long term success. From this process, the Committee ultimately determines, based on recommendations by the CEO, a percentage that it believes fairly represents the NEO's personal achievement level for the year.

With respect to the second portion of the Staff's comment regarding the level of achievement of corporate and individual goals and the resulting impact on various elements of compensation, in future filings we will include the following level of disclosure:

Salary Increases. Salary increases are based in part on goal achievement. However, the Committee also considers each NEO's broader contributions to the organization, such as the manner in which he or she achieves objectives, collaborative contributions outside of his or her area of responsibility, management performance, financial/budget management and other criteria, and market salary data for comparable executive positions from our defined peer group of companies. There is no predetermined weighting of goal achievement versus these other factors; rather, the Committee uses its discretion in considering each of these elements in the context of the Company's and the individual's overall performance and the importance of retaining such individual to the Company's long-term success.

Bonuses. Bonuses are the compensation element most closely tied to performance. Each NEO's performance-based target bonus is expressed as a percentage of his or her salary and is set at a level that, upon achievement of 100% of established goals for the Company and the individual, represents a competitive bonus that is consistent with the benchmarked data at the median level for a similar executive position. For 2007, the President and Chief Executive Officer's target bonus was set at 50% of base salary, and the Executive Chairman's target bonus was set at 40%. For the Senior Vice President and Vice President levels, the target bonus was 30% and 25% of base salary, respectively.

The more senior a NEO's position and operational responsibilities within the Company, the greater percentage of his or her bonus is weighted to the achievement of corporate goals. At the President and Chief Executive Officer level, 100% of the bonus was based on the achievement of the corporate goals. In 2007; for the Executive Chairman, 50% of the bonus was based on the achievement of corporate goals and 50% on the achievement of individual goals; and for all other NEO positions, 75% of the bonus was based on the achievement of corporate goals and 25% on the achievement of individual goals.

The level of achievement of the corporate goals is determined by the Compensation Committee, taking into account actual achievement against the stated goals, but also using discretion in considering other factors as described above. For 2007, the Committee determined that the Company met approximately 45% of its corporate goals based on successes in the advancement of certain clinical development and research programs and in establishing sufficient cash reserves, both of which represented potential long-term value to the Company and its shareholders, balanced by delays in the conduct of other clinical

development programs, which represented erosion in potential near-term value to the Company and shareholders.

The level of achievement of individual goals is assessed by the CEO taking into account actual achievement against the stated goals, but also using discretion in considering other factors as described above. The CEO then makes a recommendation regarding achievement level to the Compensation Committee. For example, in 2007, the individual achievement level determined for Ms. Surrey-Barbari was 90%, influenced heavily by the achievement of the principal goal of finishing 2007 with cash reserves sufficient in excess of that required to cover the upcoming 18 months of forecast expenditures. The individual achievement level determined for Dr. Morgans was 110%, based largely on the advancement of research programs, including the selection of a potential development candidate and 2 proto-development compounds, exceeding expectations.

Equity. Equity is the compensation element least strongly tied to prior performance. Equity awards are intended to incentivize long-term retention, and so reward prior performance to the extent it reflects the anticipated value of the NEO's contributions going forward. The Committee develops its equity award determinations based on information provided by the third-party executive consultants and other relevant factors to ensure that the complete compensation packages provided to the NEOs, including prior equity awards, are sufficient to retain and motivate them and adequately reward them for their contributions.

* * * *

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

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.