

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

**FORM S-8
REGISTRATION STATEMENT**

*Under
The Securities Act of 1933*

CYTOKINETICS, INCORPORATED

(Exact name of Registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

94-3291317
(I.R.S. Employer
Identification Number)

**280 East Grand Avenue
South San Francisco, CA 94080**
(Address of principal executive offices)

2004 EQUITY INCENTIVE PLAN, AS AMENDED
(Full title of the plan)

**Robert I. Blum
President and Chief Executive Officer
Cytokinetics, Incorporated
280 East Grand Avenue
South San Francisco, CA 94080**

(650) 624-3000

(Name, address, and telephone number, including area code, of agent for service)

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer Accelerated filer
Non-accelerated filer (Do not check if a smaller reporting company) Smaller reporting company

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Maximum Amount to be Registered (1)	Proposed Maximum Offering Price Per Share (2)	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
2004 Equity Incentive Plan, as amended, Common Stock \$0.001 par value	3,000,000 shares	\$1.24	\$3,720,000	\$431.89

- (1) Represents an additional 3,000,000 shares of Common Stock available for issuance under the Company's 2004 Equity Incentive Plan, as amended, as approved by the Company's board of directors on February 10, 2011 and by the Company's stockholders at the Annual Meeting of Stockholders held on May 18, 2011 in South San Francisco, California.
- (2) Estimated in accordance with Rule 457(h) solely for the purpose of calculating the total registration fee. No options have been granted with respect to such shares. The computation is based upon the average of the high and low prices of the Common Stock as reported on The NASDAQ Global Market on July 29, 2011.

PART II

EXPLANATORY NOTE

This Registration Statement on Form S-8 is being filed for the purpose of registering an additional 3,000,000 shares of Cytokinetics, Incorporated's (the "Company" or the "Registrant") Common Stock to be issued pursuant to the Company's 2004 Equity Incentive Plan, as amended.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The contents of the Registration Statements on Form S-8 previously filed with the Securities and Exchange Commission on May 4, 2004 (File No. 333-115146), June 20, 2005 (File No. 333-125973), April 14, 2006 (File No. 333-133323), August 11, 2006 (File No. 333-136524), February 28, 2007 (File No. 333-140963), March 14, 2008 (File No. 333-149713), August 7, 2008 (File No. 333-152850), August 6, 2009 (File No. 333-161116), August 4, 2010 (File No. 333-168520) are incorporated by reference herein.

All documents filed by the Company pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934, as amended (except in each case the information contained in such documents to the extent "furnished" and not "filed") on or after the date of this Registration Statement and prior to the filing of a post-effective amendment which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold shall be deemed to be incorporated by reference in this Registration Statement and to be part hereof from the date of filing of such documents.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant, Cytokinetics, Incorporated, a corporation organized and existing under the laws of the State of Delaware, certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of South San Francisco, State of California, on this 5th day of August 2011.

CYTOKINETICS, INCORPORATED

By: /s/ Robert I. Blum
Robert I. Blum
President and Chief Executive Officer
(Principal Executive Officer)

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Robert I. Blum and Sharon A. Barbari, jointly and severally, as his or her attorneys-in-fact, with full power of substitution in each, for him or her in any and all capacities to sign any amendments to this Registration Statement on Form S-8, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact, or his or her substitutes, may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed below by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Robert I. Blum</u> Robert I. Blum	President, Chief Executive Officer and Director (Principal Executive Officer)	August 5, 2011
<u>/s/ Sharon A. Barbari</u> Sharon A. Barbari	Executive Vice President, Finance and Chief Financial Officer (Principal Financial and Accounting Officer)	August 5, 2011
<u>/s/ L. Patrick Gage</u> L. Patrick Gage, Ph.D.	Chairman of the Board of Directors	August 5, 2011
<u>/s/ Santo J. Costa</u> Santo J. Costa	Director	August 5, 2011
<u>/s/ Stephen Dow</u> Stephen Dow	Director	August 5, 2011
<u>/s/ Denise M. Gilbert</u> Denise M. Gilbert, Ph.D.	Director	August 5, 2011
<u>/s/ John T. Henderson</u> John T. Henderson, M.B., Ch.B.	Director	August 5, 2011
<u>/s/ James A. Spudich</u> James A. Spudich, Ph.D.	Director	August 5, 2011
<u>/s/ Wendell Wierenga</u> Wendell Wierenga, Ph. D.	Director	August 5, 2011

INDEX TO EXHIBITS

<u>Exhibit Number</u>	<u>Description</u>
3.1 (1)	Amended and Restated Certificate of Incorporation.
3.2 (2)	Certificate of Amendment of Amended and Restated Certificate of Incorporation.
3.3 (3)	Amended and Restated Bylaws.
3.4 (4)	Certificate of Designation of Preferences, Rights and Limitations of Series A Convertible Preferred Stock.
4.1 (5)	Specimen Common Stock Certificate.
4.2 (6)	Registration Rights Agreement, dated as of December 29, 2006, by and between the Company and Amgen Inc.
4.3 (4)	Form of Warrant to Purchase Common Stock of Cytokinetics, Inc.
10.2 (2)	2004 Equity Incentive Plan, as amended.
10.67 (4)	Security Purchase Agreement, dated April 18, 2011, between the Company and Deerfield Private Design Fund II, L.P., Deerfield Private Design International II, L.P., Deerfield Special Situations Fund, L.P., and Deerfield Special Situations Fund International Limited.
10.68 (7)	At the Market Issuance Sales Agreement, dated June 10, 2011, between the Company and McNicoll, Lewis & Vlax LLC.
5.1	Opinion of Cooley LLP.
23.1	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm.
(1)	Incorporated by reference from the Company's registration statement on Form S-3, registration number 333-174869, declared effective by the Securities and Exchange Commission on June 23, 2011.
(2)	Incorporated by reference from the Company's Quarterly Report on Form 10-Q, filed with the Securities and Exchange Commission on August 4, 2011.
(3)	Incorporated by reference from the Company's registration statement on Form S-1, registration number 333-112261, declared effective by the Securities and Exchange Commission on April 29, 2004.
(4)	Incorporated by reference from the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on April 18, 2011.
(5)	Incorporated by reference from the Company's Quarterly Report on Form 10-Q, filed with the Securities and Exchange Commission on May 9, 2007.
(6)	Incorporated by reference from the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on January 3, 2007.
(7)	Incorporated by reference from the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on June 13, 2011.

August 5, 2011

Cytokinetics, Incorporated
280 East Grand Avenue
South San Francisco, CA 94080

Ladies and Gentlemen:

You have requested our opinion with respect to certain matters in connection with the filing by Cytokinetics, Incorporated, a Delaware corporation (the "Company"), of a Registration Statement on Form S-8 (the "Registration Statement") with the Securities and Exchange Commission covering the offering of up to 3,000,000 shares of the Company's Common Stock, par value \$0.001 per share (the "Shares"), issuable pursuant to the Company's 2004 Equity Incentive Plan, as amended (the "Plan").

In connection with this opinion, we have examined and relied upon (a) the Registration Statement and related prospectuses, (b) the Plan, (c) the Company's Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws, each as currently in effect, and (d) such other documents, records, certificates, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below. We have assumed the genuineness and authenticity of all documents submitted to us as originals, the conformity to originals of all documents submitted to us as copies thereof, and the due execution and delivery of all documents where due execution and delivery are a prerequisite to the effectiveness thereof.

As to certain factual matters, we have relied upon a certificate of officers of the Company and have not sought to independently verify such matters. Our opinion is expressed only with respect to the federal laws of the United States of America and the General Corporation Law of the State of Delaware.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that the Shares, when sold and issued in accordance with the Plan, and the Registration Statement and related prospectuses, will be validly issued, fully paid, and nonassessable (except as to Shares issued pursuant to certain deferred payment arrangements, which will be fully paid and nonassessable when such deferred payments are made in full).

We consent to the filing of this opinion as an exhibit to the Registration Statement.

Sincerely,

COOLEY LLP

/s/ Michael E. Tenta

Michael E. Tenta

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated March 11, 2011 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in Cytokinetics, Incorporated's Annual Report on Form 10-K for the year ended December 31, 2010.

/s/ PricewaterhouseCoopers LLP

San Jose, California
August 5, 2011