

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
(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)

Copy to:
Michael J. O'Donnell, Esq.
Martin J. Waters, Esq.
Gavin McCraley, Esq.
Wilson Sonsini Goodrich & Rosati
Professional Corporation
650 Page Mill Road
Palo Alto, CA 94304-1050
(650) 493-9300

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, Common Stock \$0.001 par value	1,500,000 shares	\$8.365	\$12,547,500.00	\$385.21

(1) Represents an additional 1,500,000 shares of Common Stock available for issuance under the Company's 2004 Equity Incentive Plan, as a result of provisions in the Company's 2004 Equity Incentive Plan that allow automatic annual increases of Common Stock available for issuance under such plan.

(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 February 26, 2007.

**Statement Under General Instruction E
Registration of Additional Securities**

Unless as noted herein, the contents of the Cytokinetics, Incorporated's (the "Company" or the "Registrant") Form S-8 Registration Statement (File No. 333-115146) are incorporated by reference into this Registration Statement.

PART II
INFORMATION REQUIRED IN REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

There are hereby incorporated by reference in this Registration Statement the following documents and information heretofore filed by the Company with the Securities and Exchange Commission:

- (1) The Company's Annual Report filed on Form 10-K for the fiscal year ended December 31, 2005.
- (2) The Company's Definitive Proxy Statement on Schedule 14A, filed on April 4, 2006.
- (3) The Company's Quarterly Reports filed on Form 10-Q for the fiscal quarters ended March 31, 2006, June 30, 2006, and September 30, 2006.
- (4) The Company's Current Reports on Form 8-K dated January 18, 2006, January 20, 2006, January 31, 2006, February 10, 2006, March 7, 2006, March 22, 2006, March 30, 2006, April 27, 2006, June 7, 2006, June 19, 2006, June 29, 2006, July 27, 2006, August 23, 2006, September 13, 2006, October 2, 2006, October 26, 2006, November 13, 2006, November 15, 2006, November 27, 2006, December 1, 2006, December 7, 2006, December 12, 2006, December 20, 2006, January 3, 2007, January 22, 2007 and January 31, 2007.
- (5) The description of the Company's Common Stock contained in the Company's Registration Statement on Form 8-A filed pursuant to the Exchange Act, as amended, and as declared effective on April 29, 2004.

All documents filed by the Company pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934 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.

Item 5. Interests of Named Experts and Counsel.

Certain members of Wilson Sonsini Goodrich & Rosati, Professional Corporation, and investment partnerships of which such persons are partners, beneficially own 431 shares of the Company's Common Stock.

Item 8. Exhibits.

<u>Exhibit Number</u>	<u>Description</u>
4.1 (1)	Specimen Common Stock Certificate.
4.2 (1)	Fourth Amended and Restated Investors Rights Agreement, dated March 21, 2003, by and among the Registrant and certain stockholders of the Registrant.
4.3 (1)	Loan and Security Agreement, dated September 25, 1998, by and between the Registrant and Comdisco.
4.4 (1)	Amendment No. One to Loan and Security Agreement, dated February 1, 1999.
4.5 (1)	Warrant for the purchase of shares of Series A preferred stock, dated September 25, 1998, issued by the Registrant to Comdisco.
4.6 (1)	Loan and Security Agreement, dated December 16, 1999, by and between the Registrant and Comdisco.
4.7 (1)	Amendment No. 1 to Loan and Security Agreement, dated June 29, 2000, by and between the Registrant and Comdisco.
4.8 (1)	Warrant for the purchase of shares of Series B preferred stock, dated December 16, 1999, issued by the Registrant to Comdisco.

Exhibit Number	Description
4.9 (1)	Master Security Agreement, dated February 2, 2001, by and between the Registrant and General Electric Capital Corporation.
4.10 (1)	Cross-Collateral and Cross-Default Agreement by and between the Registrant and Comdisco.
4.11 (1)	Warrant for the purchase of shares of common stock, dated July 20, 1999, issued by the Registrant to Bristow Investments, L.P.
4.12 (1)	Warrant for the purchase of shares of common stock, dated July 20, 1999, issued by the Registrant to the Laurence and Magdalena Shushan Family Trust.
4.13 (1)	Warrant for the purchase of shares of common stock, dated July 20, 1999, issued by the Registrant to Slough Estates USA Inc.
4.14 (1)	Warrant for the purchase of shares of Series B preferred stock, dated August 30, 1999, issued by the Registrant to The Magnum Trust.
4.15 (2)	Warrant for the purchase of shares of common stock, dated October 28, 2005, issued by the Registrant to Kingsbridge Capital Limited.
4.16 (2)	Registration Rights Agreement, dated October 28, 2005, by and between the Registrant and Kingsbridge Capital Limited.
4.17 (3)	Registration Rights Agreement, dated as of December 29, 2006, by and between the Registrant and Amgen Inc.
5.1	Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation.
10.3 (1)	2004 Equity Incentive Plan.
23.1	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm.
23.2	Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (see Exhibit 5.1).
24.1	Power of Attorney (see signature page).

-
- (1) Incorporated by reference from the Registrant's registration statement on Form S-1, registration number 333-112261, declared effective by the Securities and Exchange Commission on April 29, 2004.
 - (2) Incorporated by reference from the Registrant's Current Report on Form 8-K, filed with the Securities and Exchange Commission on January 20, 2006.
 - (3) Incorporated by reference from the Registrant's Current Report on Form 8-K, filed with the Securities and Exchange Commission on January 3, 2007.

Item 9. Undertakings.

A. The undersigned Registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:
 - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act;
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of the securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of a prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement;
-

- (iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement;

Provided, however, that paragraphs (A)(1)(i) and (A)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the Registration Statement.

- (2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new Registration Statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
 - (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- B. The undersigned Registrant hereby undertakes, that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the Registration Statement shall be deemed to be a new Registration Statement relating to the securities offered therein, and the offering of such securities at the time shall be deemed to be the initial bona fide offering thereof.
- C. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Commission, such indemnification as against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.
-

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 28 day of February, 2007.

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 Surrey-Barbari, jointly and severally, as his attorneys-in-fact, with full power of substitution in each, for him 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 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)	February 28, 2007
<u>/s/ Sharon Surrey-Barbari</u> (Sharon Surrey-Barbari)	Chief Financial Officer (Principal Financial and Accounting Officer)	February 28, 2007
<u>/s/ James Sabry.</u> (James Sabry, M.D., Ph.D.)	Executive Chairman and Director	February 28, 2007
<u>/s/ Stephen Dow</u> (Stephen Dow)	Director	February 28, 2007
<u>/s/ A. Grant Heidrich, III</u> (A. Grant Heidrich, III)	Director	February 28, 2007
<u>/s/ Charles Homcy, M.D.</u> (Charles Homcy, M.D.)	Director	February 28, 2007
<u>/s/ Mark McDade</u> (Mark McDade)	Director	February 28, 2007
<u>/s/ Michael Schmertzler</u> (Michael Schmertzler)	Director	February 28, 2007
<u>/s/ James Spudich, Ph.D.</u> (James Spudich, Ph.D.)	Director	February 28, 2007

INDEX TO EXHIBITS

<u>Exhibit Number</u>	<u>Description</u>
4.1 (1)	Specimen Common Stock Certificate.
4.2 (1)	Fourth Amended and Restated Investors Rights Agreement, dated March 21, 2003, by and among the Registrant and certain stockholders of the Registrant.
4.3 (1)	Loan and Security Agreement, dated September 25, 1998, by and between the Registrant and Comdisco.
4.4 (1)	Amendment No. One to Loan and Security Agreement, dated February 1, 1999.
4.5 (1)	Warrant for the purchase of shares of Series A preferred stock, dated September 25, 1998, issued by the Registrant to Comdisco.
4.6 (1)	Loan and Security Agreement, dated December 16, 1999, by and between the Registrant and Comdisco.
4.7 (1)	Amendment No. 1 to Loan and Security Agreement, dated June 29, 2000, by and between the Registrant and Comdisco.
4.8 (1)	Warrant for the purchase of shares of Series B preferred stock, dated December 16, 1999, issued by the Registrant to Comdisco.
4.9 (1)	Master Security Agreement, dated February 2, 2001, by and between the Registrant and General Electric Capital Corporation.
4.10 (1)	Cross-Collateral and Cross-Default Agreement by and between the Registrant and Comdisco.
4.11 (1)	Warrant for the purchase of shares of common stock, dated July 20, 1999, issued by the Registrant to Bristow Investments, L.P.
4.12 (1)	Warrant for the purchase of shares of common stock, dated July 20, 1999, issued by the Registrant to the Laurence and Magdalena Shushan Family Trust.
4.13 (1)	Warrant for the purchase of shares of common stock, dated July 20, 1999, issued by the Registrant to Slough Estates USA Inc.
4.14 (1)	Warrant for the purchase of shares of Series B preferred stock, dated August 30, 1999, issued by the Registrant to The Magnum Trust.
4.15 (2)	Warrant for the purchase of shares of common stock, dated October 28, 2005, issued by the Registrant to Kingsbridge Capital Limited.
4.16 (2)	Registration Rights Agreement, dated October 28, 2005, by and between the Registrant and Kingsbridge Capital Limited.
4.17 (3)	Registration Rights Agreement, dated as of December 29, 2006, by and between the Registrant and Amgen Inc.
5.1	Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation.
10.3 (1)	2004 Equity Incentive Plan.
23.1	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm.
23.2	Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (see Exhibit 5.1).
24.1	Power of Attorney (see page signature page).

-
- (1) Incorporated by reference from the Registrant's registration statement on Form S-1, registration number 333-112261, declared effective by the Securities and Exchange Commission on April 29, 2004.
 - (2) Incorporated by reference from the Registrant's Current Report on Form 8-K, filed with the Securities and Exchange Commission on January 20, 2006.
 - (3) Incorporated by reference from the Registrant's Current Report on Form 8-K, filed with the Securities and Exchange Commission on January 3, 2007.

February 28, 2007

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

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

We have examined the Registration Statement on Form S-8 to be filed by you with the Securities and Exchange Commission on or about February 28, 2007 (the "Registration Statement") in connection with the registration under the Securities Act of 1933, as amended, of an aggregate of 1,500,000 shares of your Common Stock (the "Shares"), reserved for issuance pursuant to your 2004 Equity Incentive Plan (the "Plan"). As your legal counsel, we have reviewed the actions proposed to be taken by you in connection with the proposed issuance and sale of the Shares under the Plan.

It is our opinion that the Shares, when issued and sold in the manner referred to in the Plan, will be duly authorized, validly issued, fully paid and nonassessable.

We consent to the use of this opinion as an exhibit to the Registration Statement, and further consent to the use of our name wherever appearing in the Registration Statement and any amendments thereto.

Very truly yours,

WILSON SONSINI GOODRICH & ROSATI Professional
Corporation

/s/ WILSON SONSINI GOODRICH & ROSATI

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 8, 2006, relating to the financial statements, management's assessment of the effectiveness of internal control over financial reporting and the effectiveness of internal control over financial reporting of Cytokinetics, Incorporated, which appears in Cytokinetics, Incorporated's Annual Report on Form 10-K for the year ended December 31, 2005.

/s/ PricewaterhouseCoopers LLP

San Jose, California

February 28, 2007