

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934
(Amendment No.)*

CYTOKINETICS, INCORPORATED

(Name of Issuer)

Common Stock, \$.001 Par Value

(Title of Class of Securities)

23282W 10 0

(CUSIP Number)

Check the following box if a fee is being paid with this statement []. (A fee is not required only if the filing person: (1) has a previous statement on the file reporting beneficial ownership of more than five percent of the class of securities described in Item 1; and (2) has no amendment subsequent thereto reporting beneficial ownership of five percent or less of such class.) (See Rule 13d-7.)

*The remainder of this cover page shall be filled out for a reporting person's initial filing of this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

(Continued on following page(s))

CUSIP NO. 23282W 10 0

13G

1 NAME OF REPORTING PERSON
S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON GlaxoSmithKline plc

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*

(a) []

(b) []

3 SEC USE ONLY

4 CITIZENSHIP OR PLACE OF ORGANIZATION
England and Wales

5 SOLE VOTING POWER
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH 2,042,610

6 SHARED VOTING POWER

7 SOLE DISPOSITIVE POWER
2,042,610

8 SHARED DISPOSITIVE POWER

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
2,042,610

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES
[]

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9
7.6%

12 TYPE OF REPORTING PERSON*
CO

*SEE INSTRUCTION BEFORE FILLING OUT!

CUSIP NO. 23282W 10 0 13G

Item 1. (a). Name of Issuer:
Cytokinetics, Incorporated

(b). Address of Issuer's Principal Executive Offices:
280 East Grand Avenue
South San Francisco, CA 94080

Item 2. (a). Names of Person Filing:
GlaxoSmithKline plc

(b). Address of Principal Business Office:
980 Great West Road
Brentford
Middlesex
TW8 9GS ENGLAND

(c). Citizenship:
England and Wales

(d). Title of Class of Securities:
Common stock.

(e). CUSIP Number:
23282W 10 0

Item 3. If this statement is filed pursuant to ss.ss.240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:
Not Applicable.

Item 4. Ownership.
The information in items 1 and 5 through 11 on the cover pages (page 2) on Schedule 13G is hereby incorporated by reference.

Item 5. Ownership of Five Percent or Less of a Class:
If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following [].

Item 6.

Ownership of More Than Five Percent on
Behalf of Another Person:

In June 2001, Glaxo Wellcome International B.V., an indirect wholly-owned subsidiary of Reporting Person purchased 2,333,334 shares of Series D preferred stock which was converted into 1,204,149 shares of common stock in connection with the May 2004 initial public offering of common stock of the Issuer (the "IPO"). In March 2003, Glaxo Group Limited ("GGL"), a wholly-owned subsidiary of Reporting Person purchased 600,000 shares of Series E preferred stock which was converted into 300,000 shares of common stock in connection with the IPO. Immediately prior to IPO, GGL made an additional private purchase of 538,461 shares of common stock.

GGL is now the owner of record for 2,042,610 shares.

Item 7.

Identification and Classification of
Subsidiaries Which Acquired the Security
Being Reported on by the Parent Holding
Company:

Not applicable.

Item 8.

Identification and Classification of Members
of the Group:

Not applicable.

Item 9.

Notice of Dissolution of Group:

Not Applicable

Item 10.

Certification:

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of such securities and were not acquired in connection with or as a participant in any transaction having such purpose or effect.

Signature:

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

GLAXOSMITHKLINE PLC

By: _____
S.M. Bicknell
Company Secretary

Dated: May 20, 2004