

SECURITIES PURCHASE AGREEMENT

This SECURITIES PURCHASE AGREEMENT (this "Agreement"), dated as of April 18, 2011, is by and among Cytokinetics, Incorporated (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 (collectively the "Investors").

RECITALS

WHEREAS, the Company has filed with the Securities and Exchange Commission (the "Commission") the Registration Statement (as defined below) relating to the offer and sale from time to time of the Company's securities, including shares of its common stock, par value \$0.001 per share (the "Common Stock"), shares of its preferred stock, par value \$0.001 per share ("Preferred Stock") and warrants to purchase shares of Common Stock ("Warrants");

WHEREAS, the Board of Directors of the Company has authorized the creation of a new series of Preferred Stock denominated as Series A Convertible Preferred Stock ("Series A Preferred Stock");

WHEREAS, the Company is offering for sale shares of Common Stock, Series A Preferred Stock and Warrants (the "Offered Shares") pursuant to the Registration Statement;

WHEREAS, the Investors desire to purchase from the Company Offered Shares on the terms and conditions set forth herein;

NOW, THEREFORE, in consideration of the foregoing recitals (which are deemed to be a part of this Agreement), mutual covenants, representations, warranties and agreements contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. Definitions. As used herein, the following terms have the meanings indicated:

"Business Day" means any day other than Saturday, Sunday or a day on which banks in the City of New York are authorized or required to be closed.

"Certificate of Designations" means the Certificate of Designation of Preferences, Rights and Limitations of the Series A Convertible Preferred Stock, in the form attached hereto as Exhibit A.

"knowledge" means with respect to any statement made to the Company's knowledge, that statement is based upon the actual knowledge of Robert I. Blum, the Company's President and Chief Executive Officer and Sharon A. Barbari, the Company's Executive Vice President, Finance and Chief Financial Officer.

“Loss” shall have the meaning set forth in Section 5 hereof.

“Person” shall mean any individual, partnership, limited liability company, joint venture, firm, corporation, association, trust or other enterprise or any government or political subdivision or any agency, department or instrumentality thereof.

“Prospectus” shall have the meaning set forth in Section 4(b)(7) hereof.

“Prospectus Supplement” shall mean the prospectus supplement filed regarding the Investor Shares with the Commission pursuant to Rule 424(b) promulgated under the Securities Act (“Rule 424(b)”) and deemed to be part of the Registration Statement at the time of effectiveness.

“Registration Statement” shall mean the registration statement on Form S-3 (File No. 333-155259), including a prospectus, and including all amendments and supplements thereto (including the Prospectus Supplement), relating to the offer and sale of certain of the Company’s Common Stock, Preferred Stock and Warrants, including the Investor Shares (as defined below). References herein to the term “Registration Statement” as of any date shall mean such effective registration statement, as amended or supplemented to such date, including all information and documents incorporated by reference therein as of such date.

“Securities Act” shall mean the Securities Act of 1933, as amended.

2. Purchase of Common Stock, Series A Preferred Stock and Warrants. Subject and pursuant to the terms and conditions set forth in this Agreement, the Company agrees that it will issue and sell to the Investors, and the Investors agree that they will purchase from the Company, the number of shares of Common Stock, Series A Preferred Stock and Warrants set forth on Schedule 1 attached hereto (the “Investor Shares”). The aggregate purchase price for the Investor Shares (the “Aggregate Purchase Price”) is set forth on Schedule 1 hereto. The closing of the purchase and sale of the Investor Shares will take place on April 20, 2011, or such other date or time as the parties may agree upon in writing (the “Closing”).

3. Deliveries at Closing.

(a) Deliveries by the Investor. At the Closing, each Investor shall deliver to the Company the Aggregate Purchase Price set forth next to their name on Schedule 1 hereto by wire transfer of immediately available funds to a bank account designated in writing by the Company to the Investors, which funds will be delivered to the Company in consideration of the Investor Shares issued at the Closing.

(b) Deliveries by the Company. At the Closing, the Company shall

(1) cause its transfer agent to electronically transmit the shares of Common Stock purchased by each Investor by crediting the account of each Investor’s prime broker with DTC through its Deposit Withdrawal Agent Commission (“DWAC”) system;

(2) deliver to each Investor stock certificates in the form attached hereto as Exhibit B and Warrants in the form attached hereto as Exhibit C registered in the name

of such Investor evidencing the number of shares of Series A Preferred Stock and Warrants purchased by each Investor; and

(3) deliver evidence satisfactory to the Investors, that the Certificate of Designations has been filed with the Secretary of State of Delaware and has become effective on or prior to the Closing.

4. Representations, Warranties, Covenants and Agreements.

(a) Investor Representations, Warranties and Covenants. Each Investor represents, warrants, covenants and agrees as follows as of the date hereof and as of the Closing:

(1) Investor has received and reviewed copies of the Registration Statement and the Prospectus, including all documents and information incorporated by reference therein and amendments thereto, and understands that no Person has been authorized to give any information or to make any representations that were not contained in the Registration Statement and the Prospectus, and Investor has not relied on any such other information or representations in making a decision to purchase the Investor Shares. Investor hereby consents to receiving delivery of the Registration Statement and the Prospectus, including all documents and information incorporated by reference therein and amendments thereto, by electronic mail. Investor understands that an investment in the Company involves a high degree of risk for the reasons, among others, set forth under the caption "Risk Factors" in the Prospectus.

(2) Investor acknowledges that it has sole responsibility for its own due diligence investigation and its own investment decision, and that in connection with its investigation of the accuracy of the information contained or incorporated by reference in the Registration Statement and the Prospectus and its investment decision, Investor has not relied on any representation or information, as the case may be, not set forth in this Agreement, the Registration Statement or the Prospectus, or any Person affiliated with the Company or on the fact that any other Person has decided to purchase the Offered Shares.

(3) The execution and delivery of this Agreement by Investor and the performance of this Agreement and the consummation by Investor of the transactions contemplated hereby have been duly authorized by all necessary corporate or partnership action of Investor, as applicable, and this Agreement, when duly executed and delivered by Investor, will constitute a valid and legally binding instrument, enforceable in accordance with its terms against Investor, except as enforcement hereof may be limited by the effect of any applicable bankruptcy, insolvency, reorganization or similar laws or court decisions affecting enforcement of creditors' rights generally and except as enforcement hereof is subject to general principles of equity (regardless of whether enforcement is considered in a proceeding in equity or at law).

(b) Company Representations, Warranties and Covenants. The Company hereby represents, warrants, covenants and agrees as follows as of the date hereof and as of the Closing:

(1) The Company has been duly incorporated and has a valid existence and the authorization to transact business as a corporation under the laws of the State of Delaware, with corporate power and authority to own its properties and conduct its business as described in the Prospectus, and has been duly qualified as a foreign corporation for the

transaction of business and is in good standing under the laws of each other jurisdiction in which it owns or leases properties or conducts any business so as to require such qualification, except for such jurisdictions wherein the failure to be so qualified and in good standing would not individually or in the aggregate have a material adverse effect on the business, results of operations or financial condition of the Company (a "Material Adverse Effect").

(2) The Company does not have any subsidiaries.

(3) The execution, delivery and performance of this Agreement by the Company and the consummation of the transactions contemplated hereby are within the corporate powers of the Company and have been duly authorized by all necessary corporate action on the part of the Company and this Agreement, when duly executed and delivered by the parties hereto, will constitute a valid and legally binding instrument of the Company enforceable in accordance with its terms, except as enforcement hereof may be limited by the effect of any applicable bankruptcy, insolvency, reorganization or similar laws or court decisions affecting enforcement of creditors' rights generally and except as enforcement hereof is subject to general principles of equity (regardless of whether enforcement is considered in a proceeding in equity or at law).

(4) The Investor Shares have been duly authorized by the Company, and when issued and delivered by the Company against payment therefor as contemplated by this Agreement, the Investor Shares will be validly issued, fully paid and nonassessable, and will conform to the description of the Common Stock, the Series A Preferred Stock and Warrants contained in the Prospectus.

(5) The Company has reserved from its duly authorized capital stock a number of shares of Common Stock sufficient for issuance of all shares of Common Stock issuable upon the conversion of all shares of Series A Preferred Stock (the "Conversion Shares") and the exercise of all of the Warrants (the "Warrant Shares").

(6) The execution and delivery of this Agreement do not, and the compliance by the Company with the terms hereof will not, (i) violate the Certificate of Incorporation (as amended to date) of the Company or the By-Laws (as amended to date) of the Company, (ii) result in a breach or violation of any of the terms or provisions of, or constitute a material default under, any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which the Company is a party or by which the Company is bound or to which any of its properties or assets are subject, or (iii) result in a violation of, or failure to be in compliance with, any applicable statute or any order, judgment, decree, rule or regulation of any court or governmental, regulatory or self-regulatory agency or body having jurisdiction over the Company or any of its properties or assets, except where such breach, violation, default or the failure to be in compliance would not individually or in the aggregate have a Material Adverse Effect or adversely affect the ability of the Company to issue and sell the Investor Shares; and no consent, approval, authorization, order, registration, filing or qualification of or with any such court or governmental, regulatory or self-regulatory agency or body is required for the valid authorization, execution, delivery and performance by the Company of this Agreement or the issuance of the Investor Shares, except for the filing of a Form 8-K, the filing of the Prospectus Supplement, the filing of the Certificate of Designations (which is required to be filed

and effective prior to the Closing in accordance with Section 3(b)(3) hereof), the filing of a Notification of Listing of Additional Shares with The NASDAQ Stock Market LLC, and for such consents, approvals, authorizations, registrations, filings or qualifications as may be required under state securities or “blue sky” laws.

(7) The Company meets the requirements for use of Form S-3 under the Securities Act. The Registration Statement, which covers the Investor Shares, the Conversion Shares and the Warrant Shares, including a form of prospectus and such amendments or supplements to such Registration Statement as may have been required prior to the date of this Agreement, has been prepared by the Company under the provisions of the Securities Act, has been filed with the Commission, has become effective and filed with the Commission and incorporates by reference documents which the Company has filed in accordance with the provisions of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). The Company has prepared a Prospectus Supplement to the prospectus included in the Registration Statement referred to above, setting forth the terms of the offering and sale of the Investor Shares, the Conversion Shares and the Warrant Shares and additional information concerning the Company and its business and will promptly file the Prospectus Supplement with the Commission pursuant to Rule 424(b). No stop order suspending the effectiveness of the Registration Statement or any post-effective amendment thereto, or any part thereof, has been issued and served on the Company, and no proceedings for that purpose are pending or, to the knowledge of the Company, threatened by the Commission. The form of prospectus included in the Registration Statement as of the date hereof, as amended or supplemented from time to time (including the Prospectus Supplement), is referred to herein as the “Prospectus.” Any reference herein to the Registration Statement, the Prospectus or any amendment or supplement thereto shall be deemed to refer to and include the documents incorporated (or deemed to be incorporated) by reference therein, and any reference herein to the terms “amend,” “amendment” or “supplement” with respect to the Registration Statement or Prospectus shall be deemed to refer to and include the filing after the execution hereof of any document with the Commission deemed to be incorporated by reference therein. As of the close of business on April 15, 2011, at least a number of shares of Common Stock, Series A Preferred Stock and Warrants equal to the number of Investor Shares, Conversion Shares and Warrant Shares were available for issuance pursuant to the Registration Statement, which permits the issuance of the Investor Shares, the Conversion Shares and the Warrant Shares in the manner contemplated by this Agreement.

Each part of the Registration Statement, when such part became or becomes effective, and the Prospectus and any amendment or supplement thereto, on the date of filing thereof with the Commission and at the date hereof and the date of the Closing, did or will in all material respects comply with all applicable provisions of the Securities Act and the Exchange Act. Each part of the Registration Statement, when such part became or becomes effective, did not or will not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein not misleading. The Prospectus and any amendment or supplement thereto, on the date of filing thereof with the Commission, did not or will not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading. The foregoing representations and warranties in this Section 4(b)(6) do not apply to any statements or omissions made in reliance on and in conformity with information relating to the Investors furnished in writing to the Company by the

Investors specifically for inclusion in the Registration Statement or Prospectus or any amendment or supplement thereto.

(8) The consolidated financial statements and financial schedules of the Company included or incorporated by reference in the Registration Statement and the Prospectus have been prepared in conformity with generally accepted accounting principles (except, with respect to the unaudited consolidated financial statements, for the footnotes and subject to customary audit adjustments) applied on a consistent basis, are consistent in all material respects with the books and records of the Company, and accurately present in all material respects the consolidated financial position, results of operations and cash flow of the Company as of and for the periods covered thereby.

(9) The Company has not sustained since the respective dates of the latest audited financial statements included in the Registration Statement and Prospectus any material loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree, otherwise than as disclosed in or contemplated by the Registration Statement and Prospectus; and, since the respective dates as of which information is given in the Registration Statement and Prospectus, there has not been any material change in the capital stock or long-term debt of the Company.

(10) Other than as disclosed in the Prospectus, there are no legal, governmental or regulatory proceedings pending to which the Company is a party or of which any material property of the Company is the subject which, taking into account the likelihood of the outcome, the damages or other relief sought and other relevant factors, would individually or in the aggregate reasonably be expected to have a Material Adverse Effect or adversely affect the ability of the Company to issue and sell the Investor Shares, and no such proceedings are threatened in writing to the Company or, to the Company's knowledge, have been contemplated by governmental or regulatory authorities or threatened by others.

(11) The Company has title to all the real property, and owns all other properties and assets, reflected as owned in the financial statements included in the Registration Statement and the Prospectus, subject to no lien, mortgage, pledge, charge or encumbrance of any kind except those, if any, reflected in such financial statements or disclosed in the Company's Commission filings or exhibits thereto, or which are not material to the Company. The Company holds its respective leased real and personal properties under valid and binding leases, except where the failure to do so would not reasonably be expected to individually or in the aggregate have a Material Adverse Effect.

(12) The Company has filed all necessary federal and state income and franchise tax returns and has paid all taxes shown as due thereon or has filed all necessary extensions, and there is no tax deficiency that has been, or to the knowledge of the Company could reasonably be expected to be, asserted against the Company or any of its properties or assets that would in the aggregate or individually reasonably be expected to have a Material Adverse Effect.

(13) There are no holders of securities of the Company having preemptive rights to purchase Common Stock. There are no holders or beneficial owners of securities of the Company having rights to registration thereof whose securities have not been previously registered or who have not waived such rights with respect to the registration of the Company's securities on the Registration Statement, except where the failure to obtain such waiver would not individually or in the aggregate reasonably be expected to have a Material Adverse Effect.

(14) The Company is not, and does not intend to conduct its business in a manner in which it would become, an "investment company" as defined in Section 3(a) of the Investment Company Act of 1940, as amended.

5. Indemnification.

(a) Subject to the limitations and other provisions of this Section 5, the Company covenants and agrees to indemnify, defend and hold harmless the Investors and their respective directors, officers, partners, managers, employees and agents (each, an "Investor Party") from and against any and all Losses arising from claims by third parties resulting from, incurred in connection with or arising out of (but only to the extent of) (a) any breach of any representation, warranty or covenant of the Company contained herein, or (b) the failure of the Company to perform any of the Company's agreements, covenants or obligations contained herein (other than if any such claim was a result of a breach by the Investor under this Agreement). Subject to the limitations and other provisions of this Section 5, the Investor covenants and agrees to indemnify, defend and hold harmless the Company from and against (but only to the extent of) any and all Losses arising from claims by third parties resulting from, incurred in connection with or arising out of (but only to the extent of) (a) any breach of any representation or warranty of the Investor contained herein, or (b) the failure of the Investor to perform any of the agreements, covenants or obligations of the Investor contained herein. The term "Loss" or any similar term shall mean any and all damages, deficiencies, costs, claims, fines, judgments, amounts paid in settlement, expenses of investigation, interest, penalties, taxes, assessments, out-of-pocket expenses (including reasonable attorneys' and auditors' fees and disbursements, witness fees and court costs) but specifically excluding consequential, special, punitive, multiple and other similar damages. The party or parties being indemnified are referred to herein as the "Indemnitee" and the indemnifying party is referred to herein as the "Indemnitor."

(b) Indemnification Procedure.

(1) Any party who receives notice of a potential claim that may, in the judgment of such party, result in a Loss shall use all reasonable efforts to provide the parties hereto notice thereof within fifteen (15) days of the filing or other written assertion of any such claim against the Indemnitee, provided that failure or delay or alleged delay in providing such notice shall not adversely affect such party's right to indemnification hereunder, unless and then only to the extent that such failure or delay or alleged delay has resulted in actual prejudice to the Indemnitor, including, without limitation, by the expiration of a statute of limitations. In the event that any party shall incur or suffer any Losses in respect of which indemnification may be sought by such party hereunder, the Indemnitee shall assert a claim for indemnification by written notice (a "Notice") to the Indemnitor stating the nature and basis of such claim.

(2) If indemnification is sought, the Indemnitor shall, if necessary, retain counsel reasonably satisfactory to the Indemnitee, it being agreed that Cooley LLP is satisfactory, and have the option (i) to conduct any proceedings or negotiations in connection therewith, (ii) to take all other steps to settle or defend any such claim (provided that the Indemnitor shall not settle any such claim without the consent of the Indemnitee which consent shall not be unreasonably withheld or delayed) and (iii) to employ counsel to contest any such claim or liability in the name of the Indemnitee or otherwise. In any event, the Indemnitee shall be entitled to participate at its own expense and by its own counsel in any proceedings relating to any third party claim. The Indemnitor shall, within fifteen (15) Business Days of receipt of the Notice, notify the Indemnitee of its intention to assume the defense of such claim. If (i) the Indemnitor shall decline to assume the defense of any such claim, (ii) the Indemnitor shall fail to notify the Indemnitee within fifteen (15) Business Days after receipt of the Notice of the Indemnitor's election to defend such claim or (iii) in the reasonable opinion of counsel for the Indemnitee, the representation by the same counsel of the Indemnitor and the Indemnitee would be inappropriate due to actual or potential material differing interests between such Indemnitee and any other party represented by such counsel in such proceeding, then in each such case the Indemnitor shall not have the right to direct the defense of such action on behalf of the Indemnitee and the Indemnitee shall, at the sole expense of the Indemnitor, defend against such claim; provided, that the Indemnitee may not settle such claim without the consent of the Indemnitor (which consent will not be unreasonably withheld or delayed). The Indemnitor shall pay for only one separate legal counsel for the Indemnitees, and such legal counsel shall be selected by the Indemnitor. The reasonable expenses of all proceedings, contests or lawsuits in respect of such claims shall be borne and paid by the Indemnitor if the Indemnitee is entitled to indemnification hereunder and the Indemnitor shall pay the Indemnitee, in immediately available funds, the amount of any Losses, within a reasonable time of the incurrence of such Losses. Regardless of which party shall assume the defense or negotiation of the settlement of the claim, the parties agree to cooperate fully with one another in connection therewith. Anything in this Section 5 to the contrary notwithstanding, the Indemnitor shall not, without the Indemnitee's prior written consent, settle or compromise any claim or consent to entry of any judgment in respect thereof which imposes any future obligation on the Indemnitee or which does not include, as an unconditional term thereof, the giving by the claimant or plaintiff to the Indemnitee, a release from all liability in respect of such claim.

6. Conditions.

(a) The obligation of each Investor to purchase and acquire the Investor Shares hereunder shall be subject to the conditions that:

(1) All representations and warranties of the Company herein shall be true and correct in all material respects as of and on each of the date of this Agreement and the date of the Closing;

(2) The Company shall have performed all of its obligations hereunder; including but not limited to delivery of the shares of Common Stock included in the Investor Shares through DWAC, certificates for the Series A Preferred Stock and the Warrants;

(3) The Prospectus Supplement shall have been filed with the Commission pursuant to Rule 424(b) within the applicable time period prescribed for such filing, no stop order suspending the effectiveness of the Registration Statement or any part thereof shall have been issued and no proceeding for that purpose shall have been initiated or threatened by the Commission, and the Investor shall have received the Prospectus in accordance with the federal securities laws; and

(4) The Investors shall have received an opinion of Cooley LLP, counsel to the Company, in the form attached hereto as Exhibit D.

(b) The obligation of the Company to sell the Investor Shares hereunder shall be subject to the conditions that:

(1) All representations and warranties and other statements of the Investors herein shall be true and correct in all material respects as of and on each of the date of this Agreement and the date of the Closing; and

(2) The Investors shall have performed all of their obligations hereunder, including but not limited to payment of the Aggregate Purchase Price as provided herein.

7. Miscellaneous.

(a) Binding Agreement; Assignment. This Agreement shall be binding upon, and shall inure solely to the benefit of, each of the parties hereto, and each of their respective heirs, executors, administrators, successors and permitted assigns, and no other person shall acquire or have any right under or by virtue of this Agreement. The Company may not assign any of its rights or obligations hereunder to any other person or entity without the prior written consent of the Investors.

(b) Entire Agreement. This Agreement, including the Schedules hereto, constitute the entire understanding between the parties hereto with respect to the subject matter hereof and may be amended only by written execution by both parties. Upon execution by the Company and the Investors, this Agreement shall be binding on each of the parties hereto.

(c) Consent To Jurisdiction. THIS AGREEMENT SHALL BE ENFORCED, GOVERNED AND CONSTRUED IN ALL RESPECTS IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK, WITHOUT GIVING EFFECT TO ITS CONFLICTS OF LAWS PRINCIPLES OTHER THAN SECTIONS 5-1401 AND 5-1402 OF THE GENERAL OBLIGATIONS LAW OF SUCH STATE. FURTHERMORE, THE INVESTOR HEREBY IRREVOCABLY SUBMITS TO THE JURISDICTION OF THE FEDERAL OR STATE COURTS LOCATED IN THE STATE OF NEW YORK IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY. EACH OF THE COMPANY AND THE INVESTORS (AND, TO THE EXTENT PERMITTED BY LAW, ON BEHALF OF ITS AND THEIR EQUITY HOLDERS AND CREDITORS) HEREBY KNOWINGLY, VOLUNTARILY

AND IRREVOCABLY WAIVES ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY CLAIM BASED UPON, ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT AND THE TRANSACTIONS CONTEMPLATED HEREBY.

(d) Notices. Any notice, request or other communication to be given or made under this Agreement shall be in writing. Such notice, request or other communication shall be deemed to have been duly given or made when it shall be delivered by hand, overnight mail, international courier (confirmed by facsimile), or facsimile (with a hard copy delivered within two (2) Business Days) to the Party to which it is required or permitted to be given or made at such Party's address specified below or at such other address as such Party shall have designated by notice to the other Parties.

For the Borrower:

Cytokinetics, Incorporated
200 East Grand Avenue
South San Francisco, CA 94080
Attention: President and Chief Executive Officer
Facsimile: (650) 624-3200

with a courtesy copy to:

Cooley LLP
3175 Hanover Street
Palo Alto, CA 94304
Facsimile: (650) 849-7400
Attention: Michael E. Tenta

For the Investors c/o:

Deerfield Private Design Fund, L.P.
780 Third Avenue, 37th Floor
New York, New York 10017
Attention: James E. Flynn
Facsimile: (212) 573-8111

with a courtesy copy to:

Katten Muchin Rosenman LLP
575 Madison Avenue
New York, New York 10022-2585
Facsimile: (212) 894-5877
Attention: Mark I. Fisher
Elliot Press

or to such other Person at such other place as the parties shall designate to one another in writing.

(e) Counterparts. This Agreement may be executed in any number of counterparts and by the parties hereto in separate counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one in the same agreement.

(f) Telecopy Execution and Delivery. A facsimile, telecopy, PDF or other reproduction of this Agreement may be executed by one or more parties hereto, and an executed copy of this Agreement may be delivered by one or more parties by facsimile, e-mail or similar electronic transmission device pursuant to which the signature of or on behalf of such party can be seen, and such execution and delivery shall be considered valid, binding and effective for all purposes. At the request of any party, all parties agree to execute an original of this Agreement as well as any facsimile, telecopy or reproduction thereof. The parties hereto hereby agree that neither shall raise the execution of facsimile, telecopy, PDF or other reproduction of this Agreement, or the fact that any signature or document was transmitted or communicated by facsimile, e-mail or similar electronic transmission device, as a defense to the formation of this Agreement.

[Signature pages follow]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

COMPANY:

CYTOKINETICS, INCORPORATED

By: /s/ Sharon A. Barbari
Name: Sharon A. Barbari
Title: Executive Vice President, Finance and
Chief Financial Officer

INVESTORS:

DEERFIELD PRIVATE DESIGN
FUND II, L.P.

By: Deerfield Capital, L.P., General Partner
By: J. E. Flynn Capital LLC, General Partner

By: /s/ James E. Flynn
Name: James E. Flynn
Title: President

DEERFIELD PRIVATE DESIGN INTERNATIONAL II, L.P.

By: Deerfield Capital, L.P., General Partner
By: J. E. Flynn Capital LLC, General Partner

By: /s/ James E. Flynn
Name: James E. Flynn
Title: President

DEERFIELD SPECIAL SITUATIONS FUND, L.P.

By: Deerfield Capital, L.P., General Partner
By: J. E. Flynn Capital LLC, General Partner

/s/ James E. Flynn
Name: James E. Flynn
Title: President

[Signature Page to Securities Purchase Agreement]

DEERFIELD SPECIAL SITUATIONS FUND
INTERNATIONAL LIMITED

/s/ James E. Flynn

Name: James E. Flynn

Title: Director

[Signature Page to Securities Purchase Agreement]

Schedule 1

Purchase Price Per Share of Common Stock:	\$ 1.50
Purchase Price Per Share of Series A Preferred Stock	\$1,500
Exercise Price of Warrants	\$ 1.65

Name of Investor	Aggregate Purchase Price	Number of Shares of Common Stock to be Purchased by Investor	Number of Shares of Series A Preferred Stock to be Purchased by Investor	Warrants to be Purchased by Investor
Deerfield Private Design Fund II, L.P.	\$ 6,466,350	1,700,900	2,610	2,155,450
Deerfield Private Design International II, L.P.	\$ 7,408,650	1,949,100	2,990	2,469,550
Deerfield Special Situations Fund, L.P.	\$ 2,409,750	643,500	963	803,250
Deerfield Special Situations Fund International Limited	\$ 3,770,250	1,006,500	1,507	1,256,750
Total:	\$ 20,055,000	5,300,000	8,070	6,685,000