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

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): June 23, 2011

GTx, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation)

000-50549
(Commission File Number)

62-1715807
(IRS Employer Identification No.)

175 Toyota Plaza
7th Floor
Memphis, Tennessee 38103
(Address of principal executive offices, including Zip Code)

Registrant's telephone number, including area code: **(901) 523-9700**

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
 - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
 - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
-
-

Item 8.01. Other Events

On June 23, 2011, GTx, Inc. (the “Company”) entered into an underwriting agreement (the “Underwriting Agreement”) with Citigroup Global Markets Inc., as representative of the underwriters named therein (collectively, the “Underwriters”), relating to the public offering, issuance and sale of 10,000,000 shares of the Company’s common stock, par value \$0.001 per share (“Common Stock”). The price to the public in this offering is \$4.75 per share, and the Underwriters have agreed to purchase the shares from the Company pursuant to the Underwriting Agreement at a price of \$4.465 per share. The net proceeds to the Company from this offering are expected to be approximately \$44.3 million, after deducting the underwriting discount and other estimated offering expenses payable by the Company, assuming no exercise by the Underwriters of the 30-day over-allotment option, which the Company has granted the Underwriters under the terms of the Underwriting Agreement to purchase up to an additional 1,500,000 shares of Common Stock to cover over-allotments, if any. The offering is expected to close on or about June 28, 2011, subject to customary closing conditions.

The offering is being made pursuant to the Company’s effective registration statement on Form S-3 and an accompanying prospectus (Registration Statement No. 333-174396) previously filed with the Securities and Exchange Commission, and a prospectus supplement thereunder. The Underwriting Agreement is filed as Exhibit 1.1 to this report, and the description of the material terms of the Underwriting Agreement is qualified in its entirety by reference to such exhibit. A copy of the opinion of Cooley LLP relating to the legality of the issuance and sale of the shares in the offering is attached as Exhibit 5.1 hereto.

The Underwriting Agreement contains customary representations, warranties and agreements by the Company, customary conditions to closing, indemnification obligations of the Company and the Underwriters, including for liabilities under the Securities Act of 1933, as amended, other obligations of the parties and termination provisions. The representations, warranties and covenants contained in the Underwriting Agreement were made only for purposes of such agreement and as of specific dates, were solely for the benefit of the parties to such agreement, and may be subject to limitations agreed upon by the contracting parties.

Forward-Looking Statements

Statements in this report that are not strictly historical in nature constitute “forward-looking statements.” Such statements include, but are not limited to, the Company’s issuance of securities, the amount of net proceeds from the offering and the closing of the offering. Such forward-looking statements involve known and unknown risks, uncertainties and other factors, which may cause actual results to be materially different from any results expressed or implied by such forward-looking statements. For example, there are risks associated with the Underwriters fulfilling their obligations to purchase the securities and the Company’s ability to satisfy its conditions to close the offering. In addition, the Company will continue to need significant additional capital to fund its operations and may be unable to raise capital when needed, which would force the Company to delay, reduce or eliminate its product candidate development programs or commercialization efforts. You should not place undue reliance on these forward-looking statements, which apply only as of the date of this report. Additional risks and uncertainties relating to the offering, the Company and its business can be found under the heading “Risk Factors” in the Company’s preliminary prospectus supplement related to the offering filed with the Securities and Exchange Commission on June 22, 2011. All forward-looking statements are qualified in their entirety by this cautionary statement. The Company is providing this information as of this date and does not undertake any obligation to update any forward-looking statements contained in this report as a result of new information, future events or otherwise.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits

Exhibit Number	Description
1.1	Underwriting Agreement, dated as of June 23, 2011, by and among the Company and the Underwriters.
5.1	Opinion of Cooley LLP
23.1	Consent of Cooley LLP (contained in Exhibit 5.1)

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

GTx, Inc.

Dated: June 23, 2011

By: /s/ HENRY P. DOGGRELL

Henry P. Doggrell,
Vice President,
General Counsel and Secretary

EXHIBIT INDEX

Exhibit Number	Description
1.1	Underwriting Agreement, dated as of June 23, 2011, by and among the Company and the Underwriters.
5.1	Opinion of Cooley LLP
23.1	Consent of Cooley LLP (contained in Exhibit 5.1)

GTx, Inc.
10,000,000 Shares ¹
Common Stock
(\$0.001 par value)
Underwriting Agreement

New York, New York
June 23, 2011

Citigroup Global Markets Inc.
As Representative of the several Underwriters
388 Greenwich Street
New York, New York 10013

Ladies and Gentlemen:

GTx, Inc., a corporation organized under the laws of Delaware (the "Company"), proposes to sell to the several underwriters named in Schedule II hereto (the "Underwriters"), for whom you (the "Representative") are acting as representative, the number of shares of common stock, \$0.001 par value ("Common Stock"), of the Company set forth in Schedule I hereto (the "Securities") (said shares to be issued and sold by the Company being hereinafter called the "Underwritten Securities"). The Company also proposes to grant to the Underwriters an option to purchase up to the number of additional shares of Common Stock set forth in Schedule I hereto to cover over-allotments, if any (the "Option Securities"; the Option Securities, together with the Underwritten Securities, being hereinafter called the "Securities"). To the extent there are no additional Underwriters listed on Schedule II other than you, the term Representative as used herein shall mean you, as Underwriter, and the terms Representative and Underwriter shall mean either the singular or plural as the context requires. Any reference herein to the Registration Statement, the Base Prospectus, any Preliminary Prospectus or the Final Prospectus shall be deemed to refer to and include the documents incorporated by reference therein pursuant to Item 12 of Form S-3 which were filed under the Exchange Act on or before the Effective Date of the Registration Statement or the issue date of the Base Prospectus, any Preliminary Prospectus or the Final Prospectus, as the case may be; and any reference herein to the terms "amend," "amendment" or "supplement" with respect to the Registration Statement, the Base Prospectus, any Preliminary Prospectus or the Final Prospectus shall be deemed to refer to and include the filing of any document under the Exchange Act after the Effective Date of the Registration Statement or the issue date of the Base Prospectus, any Preliminary Prospectus or the Final Prospectus, as the case may be, deemed to be incorporated therein by reference. Certain terms used herein are defined in Section 20 hereof.

¹ Plus an option to purchase from the Company, up to 1,500,000 additional Securities to cover over-allotments.

1. Representations and Warranties. The Company represents and warrants to, and agrees with, each Underwriter as set forth below in this Section 1.

(a) The Company meets the requirements for use of Form S-3 under the Act and has prepared and filed with the Commission a registration statement (the file number of which is set forth in Schedule I hereto) on Form S-3, including a related Base Prospectus, for registration under the Act of the offering and sale of the Securities. Such Registration Statement, including any amendments thereto filed prior to the Execution Time, has become effective. The Company may have filed with the Commission, as part of an amendment to the Registration Statement or pursuant to Rule 424(b), one or more preliminary prospectus supplements relating to the Securities, each of which has previously been furnished to you. The Company will file with the Commission a final prospectus supplement relating to the Securities in accordance with Rule 424(b). As filed, such final prospectus supplement shall contain all information required by the Act, and, except to the extent the Representative shall agree in writing to a modification, shall be in all substantive respects in the form furnished to you prior to the Execution Time or, to the extent not completed at the Execution Time, shall contain only such specific additional information and other changes (beyond that contained in the Base Prospectus and any Preliminary Prospectus) as the Company has advised you, prior to the Execution Time, will be included or made therein. The Registration Statement, at the Execution Time, meets the requirements set forth in Rule 415(a)(1)(x). The initial Effective Date of the Registration Statement was not earlier than the date three years before the Execution Time. The Company is eligible to offer and sell securities under the Registration Statement (including the offer and sale of the Securities) without reliance on General Instruction I.B.6 of Form S-3.

(b) On each Effective Date, the Registration Statement did, and when the Final Prospectus is first filed in accordance with Rule 424(b) and on the Closing Date (as defined herein) and on any date on which Option Securities are purchased, if such date is not the Closing Date (a "settlement date"), the Final Prospectus (and any supplement thereto) will, comply in all material respects with the applicable requirements of the Act and the Exchange Act; on each Effective Date and at the Execution Time, the Registration Statement did not and will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements therein not misleading; and on the date of any filing pursuant to Rule 424(b) and on the Closing Date and any settlement date, the Final Prospectus (together with any supplement thereto) will not include any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided, however, that the Company makes no representations or warranties as to the information contained in or omitted from the Registration Statement or the Final Prospectus (or any supplement thereto) in reliance upon and in conformity with information furnished in writing to the Company by or on behalf of any Underwriter through the Representative specifically for inclusion in the Registration Statement or the Final Prospectus (or any supplement thereto), it being understood and agreed that the only such information furnished by or on behalf of any Underwriter consists of the information described as such in Section 8 hereof.

(c) (i) The Disclosure Package and (ii) each electronic road show when taken together as a whole with the Disclosure Package, does not contain any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The preceding sentence does not apply to statements in or omissions from the Disclosure Package based upon and in conformity with written information furnished to the Company by any Underwriter through the Representative specifically for use therein, it being understood and agreed that the only such information furnished by or on behalf of any Underwriter consists of the information described as such in Section 8 hereof.

(d) (i) At the earliest time after the filing of the Registration Statement that the Company or another offering participant made a *bona fide* offer (within the meaning of Rule 164(h)(2)) of the Securities and (ii) as of the Execution Time (with such date being used as the determination date for purposes of this clause (ii)), the Company was not and is not an Ineligible Issuer (as defined in Rule 405), without taking account of any determination by the Commission pursuant to Rule 405 that it is not necessary that the Company be considered an Ineligible Issuer.

(e) Each Issuer Free Writing Prospectus does not include any information that conflicts with the information contained in the Registration Statement, including any document incorporated therein by reference and any prospectus supplement deemed to be a part thereof that has not been superseded or modified. The foregoing sentence does not apply to statements in or omissions from any Issuer Free Writing Prospectus based upon and in conformity with written information furnished to the Company by any Underwriter through the Representative specifically for use therein, it being understood and agreed that the only such information furnished by or on behalf of any Underwriter consists of the information described as such in Section 8 hereof.

(f) The Company has the full right, power and authority to enter into this Agreement and to perform and to discharge its obligations hereunder; and this Agreement has been duly authorized, executed and delivered by the Company, and constitutes a valid and binding obligation of the Company enforceable in accordance with its terms.

(g) Neither the Company nor, to the Company's knowledge, any of the Company's officers, directors or affiliates has taken or will take, directly or indirectly, any action designed or intended to stabilize or manipulate the price of any security of the Company, or which caused or resulted in, or which might in the future reasonably be expected to cause or result in, stabilization or manipulation of the price of any security of the Company.

(h) The Company is subject to and in compliance in all material respects with the reporting requirements of Section 13 or Section 15(d) of the Exchange Act. The Common Stock is registered pursuant to Section 12(b) of the Exchange Act and is listed on the Nasdaq Global Market ("Nasdaq GM"), and the Company has taken no action designed to, or reasonably likely to have the effect of, terminating the registration of the Common Stock under the Exchange Act or delisting the Common Stock from the Nasdaq

GM, nor has the Company received any notification that the Commission or the Financial Industry Regulatory Authority, Inc. (“FINRA”) is contemplating terminating such registration or listing. Except as contemplated by Section 6(k), no consent, approval, authorization or order of, or filing, notification or registration with, the Nasdaq GM is required for the listing and trading of the Securities on the Nasdaq GM.

(i) The Company has not taken any action in the public offering of the Securities by the Underwriters that would require approval of the shareholders of the Company under the rules and regulations of Nasdaq (including Rule 5635 of the Nasdaq Marketplace Rules) in order for the Company to issue and deliver to the Underwriters the Securities; and the Company is in material compliance with all applicable corporate governance requirements set forth in the Nasdaq Global Marketplace Rules.

(j) The Company has not sustained since the date of the latest audited financial statements included or incorporated by reference in the Final 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; and, since the respective dates as of which information is given in the Final Prospectus and Disclosure Package, there has not been any change in the capital stock (other than as a result of the grant of stock pursuant to the Company’s current stock option plans described in the Final Prospectus and Disclosure Package, the crediting to and distributions from director stock accounts under the Company’s directors’ deferred compensation plan, and the cancellation or exercise of stock options granted pursuant to the Company’s current stock option plans described in the Final Prospectus and Disclosure Package), short-term debt or long-term debt of the Company or any material adverse change, or any development involving a prospective material adverse change, in or affecting the general affairs, management, financial position, assets, business, prospects, stockholders’ equity or results of operations of the Company or impair in any material respect the ability of the Company to perform its obligations under this Agreement or to consummate any transactions contemplated by this Agreement (any such effect as described in this Section 1(j), a “Material Adverse Effect”), otherwise than as set forth or contemplated in the Final Prospectus and Disclosure Package.

(k) The Company does not own any real property; the Company has good and marketable title to all tangible personal property owned by it, in each case free and clear of all liens, encumbrances and defects except such as are described in the Final Prospectus and Disclosure Package or such as do not materially affect the value of such property and do not interfere with the use made of such property by the Company; and any real property and buildings held under lease by the Company are held by it under valid, subsisting and enforceable leases with such exceptions as would not result in a Material Adverse Effect.

(l) The Company has been duly incorporated and is validly existing as a corporation in good standing under the laws of the State of Delaware, with power and corporate authority to own its properties and conduct its business as described in the Final Prospectus and Disclosure Package, 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 where the failure to be so qualified would not result in a Material Adverse Effect.

(m) The Company does not control directly or indirectly or have any direct or indirect equity participation or similar interest in any corporation, partnership, limited liability company, joint venture, trust or other business association or entity.

(n) The Company has an authorized capitalization as set forth in the Final Prospectus and Disclosure Package, and all of the issued shares of capital stock of the Company have been duly and validly authorized and issued and are fully paid and non-assessable.

(o) The Securities to be issued and sold by the Company to the Underwriters hereunder have been duly and validly authorized and, when issued and delivered against payment therefor as provided herein, will be duly and validly issued, fully paid and nonassessable and free of any preemptive, registration or similar rights (other than as have previously been waived) and will conform to the description thereof contained in the Final Prospectus and Disclosure Package.

(p) The issue and sale of the Securities by the Company and the compliance by the Company with all of the provisions of this Agreement, and the consummation of the transactions contemplated herein will not conflict with or result in a breach or violation of any of the terms or provisions of, or constitute a 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 the property or assets of the Company is subject, other than any conflict, breach or violation that would not have a Material Adverse Effect, nor will such action result in any violation of the provisions of the Certificate of Incorporation or By-laws of the Company or any statute or any order, rule or regulation of any court or governmental agency or body having jurisdiction over the Company or any of its properties; and no consent, approval, authorization, order, registration or qualification of or with any such court or governmental agency or body is required for the issue and sale of the Securities or the consummation by the Company of the transactions contemplated by this Agreement, except such as have been, or will have been prior to the Closing Date, obtained under the Act and such consents, approvals, authorizations, registrations or qualifications as may be required under state securities or Blue Sky laws in connection with the offering and sale of the Securities.

(q) The Company is not (i) in violation of its Certificate of Incorporation or By-laws or (ii) in default in the performance or observance of any material obligation, agreement, covenant or condition contained in any indenture, mortgage, deed of trust, loan agreement, lease or other agreement or instrument to which it is a party or by which it or any of its properties may be bound, except in the case of clause (ii), any default that would not have a Material Adverse Effect.

(r) Neither the Company nor, to the knowledge of the Company, any of its affiliates (within the meaning of FINRA Rule 5121(f)(1)) directly or indirectly controls, is controlled by, or is under common control with, or is an associated person (within the meaning of Article I, Paragraph (rr) of the By-laws of FINRA) of, any member firm of FINRA.

(s) The statements set forth in the Final Prospectus under the caption “Description of Capital Stock”, insofar as they purport to constitute a summary of the terms of the Securities, and the statements incorporated by reference into the Final Prospectus from the Company’s Annual Report on Form 10-K for the year ended December 31, 2010 filed with the Commission, under the captions “Business — Licenses and Collaborative Relationships, — Manufacturing, — Intellectual Property, and — Government Regulation,” and the statements set forth in the Prospectus under the captions “Prospectus Supplement Summary — Our Business,” “Risk Factors — Risks Related to Our Dependence on Third Parties — Use of third-party manufacturers may increase the risk that we will not have adequate supplies of our product candidates or products, — Risks Related to Our Intellectual Property. — If we lose our license from the University of Tennessee Research Foundation, or UTRF, we may be unable to continue a substantial part of our business, — If some or all of our, or our licensors’, patents expire or are invalidated or are found to be unenforceable, or if some or all of our patent applications do not result in issued patents or result in patents with narrow, overbroad, or unenforceable claims, or claims that are not supported in regard to written description or enablement by the specification, or if we are prevented from asserting that the claims of an issued patent cover a product of a third party, we may be subject to competition from third parties with products in the same class of products as our product candidates or products with the same active pharmaceutical ingredients as our product candidates, — Risks Related to Commercialization — If we and/or any potential future collaborators are unable to obtain reimbursement or experience a reduction in reimbursement from third-party payors for products we sell, our revenues and prospects for profitability will suffer, — Risks Related to This Offering and Our Common Stock — Anti-takeover provisions in our charter documents and under Delaware law could make an acquisition of us, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current management, and — If there are substantial sales of our common stock, the market price of our common stock could drop substantially, even if our business is doing well,” insofar as they purport to describe the provisions of the laws and documents referred to therein, are accurate, complete and fair.

(t) There are no legal or governmental proceedings pending to which the Company is a party or of which any property of the Company is the subject, which, if determined adversely to the Company, would individually or in the aggregate have a Material Adverse Effect; and, to the Company’s knowledge, no such proceedings are threatened or contemplated by governmental authorities or threatened by others.

(u) The Company is not and, after giving effect to the offering and sale of the Securities, will not be an “investment company”, as such term is defined in the Investment Company Act of 1940, as amended and the rules and regulations of the Commission promulgated thereunder.

(v) The Company does not do business with the government of Cuba nor, to the Company's knowledge, with any person or affiliate located in Cuba within the meaning of Section 517.075, Florida Statutes.

(w) Ernst & Young LLP, who have audited certain financial statements and related schedules included or incorporated by reference in the Registration Statement, the Disclosure Package and the Final Prospectus, and have audited the Company's internal control over financial reporting, is an independent registered public accounting firm as required by the Act and the Public Company Accounting Oversight Board (United States) (the "PCAOB"). Ernst & Young LLP have not been engaged by the Company to perform any "prohibited activities" (as defined in Section 10A of the Exchange Act).

(x) The financial statements of the Company (together with the related notes thereto) included or incorporated by reference in the Registration Statement, Final Prospectus and the Disclosure Package as amended or supplemented (i) fairly present in all material respects the financial condition and results of the operations and cash flows of the Company as of the respective dates indicated and for the respective periods specified, (ii) complied as to form in all material respects with applicable accounting requirements and the published rules and regulations of the Commission with respect thereto (including, without limitation, Regulation S-X) and (iii) have been prepared in accordance with generally accepted accounting principles in the United States applied on a consistent basis during the periods and at the dates involved (except as may be indicated in the notes thereto); the summary and selected financial data included or incorporated by reference in the Registration Statement, Final Prospectus and the Disclosure Package as amended or supplemented fairly present the information shown therein and have been compiled on a consistent basis with that of the audited financial information incorporated by reference in the Registration Statement, Final Prospectus and the Disclosure Package. There is no pro forma or as adjusted financial information which is required to be included in the Registration Statement, Final Prospectus or the Disclosure Package, or a document incorporated by reference therein in accordance with the Act which has not been included or incorporated as so required. The pro forma and pro forma as adjusted financial information and the related notes included or incorporated by reference in the Registration Statement, Final Prospectus and the Disclosure Package, if any, have been properly compiled and prepared in accordance with the applicable requirements of the Act and present fairly the information shown therein, and the assumptions used in the preparation thereof are reasonable and the adjustments used therein are appropriate to give effect to the transactions and circumstances referred to therein.

(y) The Company maintains a system of internal control over financial reporting (as such term is defined in Rule 13a-15(f) of the Exchange Act) that complies with the requirements of the Exchange Act and has been designed by the Company's principal executive officer and principal financial officer, or under their supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles; the Company's internal control over financial reporting is effective and the Company is not aware of any material weaknesses in its internal control

over financial reporting; there has been no fraud, whether or not material, that involves management or other employees who have a significant role in the Company's internal control over financial reporting; since the date of the latest audited financial statements included or incorporated by reference in the Registration Statement, Final Prospectus and the Disclosure Package, there has been no change in the Company's internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

(z) The Company maintains disclosure controls and procedures (as such term is defined in Rule 13a-15(e) of the Exchange Act) that comply with the requirements of the Exchange Act; such disclosure controls and procedures have been designed to ensure that material information relating to the Company is made known to the Company's principal executive officer and principal financial officer by others within those entities; such disclosure controls and procedures are effective.

(aa) The Company is in compliance in all material respects with all applicable provisions of the Sarbanes-Oxley Act of 2002 and the rules and regulations promulgated by the Commission thereunder (the "Sarbanes-Oxley Act").

(bb) The Company owns or has valid, binding and enforceable licenses or other rights to use the patents and patent applications, copyrights, trademarks, trade names, service marks, service names, and know-how (including trade secrets and other unpatented proprietary intellectual property rights) that are necessary or used in any material respect to conduct its business in the manner in which it is described as being conducted and in the manner in which it is contemplated to be conducted as set forth in the Registration Statement, Final Prospectus and the Disclosure Package as amended or supplemented with respect to Company's product candidates identified in the table set forth under the caption "Product Candidates" from the Company's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2011 (the "Product Candidates") and the Company's commercial product FARESTON® (toremifene citrate) 60 mg tablets (together with the Product Candidates, the "Products") (such rights are referred to herein collectively as the "Company Intellectual Property"); the Company owns or possesses licenses or other rights to use the patents and patent applications set forth on the schedule made available to the Underwriters or their counsel prior to the date hereof (the "Patent Schedule") (the patents and patent applications set forth on the Patent Schedule that disclose or claim the Product Candidates are referred to herein collectively as the "Company Patents") that are necessary or used in any material respect to conduct its business in the manner in which it is described as being conducted and in the manner in which it is contemplated to be conducted as set forth in the Registration Statement, the Disclosure Package and the Final Prospectus as amended or supplemented; other than as disclosed in the Registration Statement, the Disclosure Package and the Final Prospectus as amended or supplemented, the Company has exclusive rights to develop, market and commercialize the Products as disclosed in the Registration Statement, the Disclosure Package and the Final Prospectus as amended or supplemented; to the Company's knowledge, there are no published patents, patent applications, articles or other prior art references or other facts or circumstances that would reasonably be likely to adversely affect the validity or enforceability of any Company Patent in any material way, nor is

any material fact known by the Company with respect to patent applications within the Company Patents that would preclude the issuance of patents with respect to such applications or would render such patents invalid or unenforceable; the Company is not obligated to pay a royalty, grant a license, or provide other consideration to any third party in connection with the Products other than as disclosed in the Registration Statement, the Disclosure Package and the Final Prospectus as amended or supplemented; the Company has not received any notice of infringement or conflict with (and the Company is not aware of any infringement or conflict with) the rights of others with respect to the Products as used in connection with its business as currently conducted or as currently contemplated to be conducted as described in the Registration Statement, the Disclosure Package and the Final Prospectus as amended or supplemented; there are no pending, nor has there been any notice of any threatened, actions, suits, proceedings, claims or allegations by others that the Company is or will be infringing any patent, trade secret, trademark, service mark, copyright or other proprietary intellectual property rights through the manufacture, use or sale of any Products; the manufacture, use or sale of the Products, described in the Registration Statement, the Disclosure Package and the Final Prospectus as amended or supplemented as being under development and other activities of the Company referred to in the Registration Statement, the Disclosure Package and the Final Prospectus as amended or supplemented do not, and to the Company's knowledge, will not, infringe or conflict with any patent of any third party in a manner which could reasonably be expected to have a Material Adverse Effect; the Company has not been notified of any material inventorship challenges or any interference proceeding having been declared or provoked with respect to the Company Patents, nor is any material fact known by the Company which fact is reasonably likely to result in any material inventorship challenge or interference proceeding with respect to such Company Patents; to the Company's knowledge, no third party has infringed or misappropriated, and no third party is currently infringing or misappropriating the Company Intellectual Property in any material respect; except as described in the Registration Statement, the Disclosure Package and the Final Prospectus as amended or supplemented and for any rights of the United States government pursuant to 35 U.S.C. § 200 et seq. relating to a Product, no third party, including any academic institution or any other government entity, possesses rights to the Company Patents which, if exercised, could enable such party to develop products competitive to a Product or could reasonably be expected to have a Material Adverse Effect; except as described in the Registration Statement, the Disclosure Package and the Final Prospectus as amended or supplemented, the Company is not in material breach of, and has complied in all material respects with all terms of, any license agreement to which it is a party that covers technology necessary to conduct or used in any material respect in the conduct of the Company's business in the manner in which it is described as being conducted and in the manner in which it is contemplated to be conducted as set forth in the Registration Statement, the Disclosure Package and the Final Prospectus as amended or supplemented; there are no license agreements to which the Company is a party that are material to the Company Patents or to the Company's proprietary information included in the Company Intellectual Property other than those described in the Registration Statement, the Disclosure Package and the Final Prospectus as amended or supplemented; no Company employee is obligated under any contract (including licenses, covenants or commitments of any nature) or other agreement, or

subject to any judgment, decree or order of any court or administrative agency, that would interfere with the use of such employee's best efforts to promote the interest of the Company or that would conflict with the Company's business; none of the execution and delivery of this Agreement, the carrying on of the Company's business by the employees of the Company, and the conduct of the Company's business as proposed, will conflict with or result in a breach of terms, conditions, or provisions of, or constitute a default under, any contract, covenant or instrument under which any such employee is now obligated; and it is not and will not be necessary to use any inventions, trade secrets or proprietary information of any of its consultants, or its employees (or persons it currently intends to hire) made prior to their employment by the Company, except for technology that is licensed to or owned by the Company.

(cc) The Company has complied with the required duty of candor and good faith in dealing with the United States Patent and Trademark Office (the "PTO") with respect to the Company Patents, and to the Company's knowledge, all individuals to whom the duty of candor and good faith applies with respect to the Company Patents have complied with such duty, including the duty to disclose to the PTO all information believed to be material to the patentability of the Company Patents and pending U.S. patent applications within Company Patents; the Company and the University of Tennessee Research Foundation ("UTRF") are identified in the records of the PTO as the holder of record of the U.S. patents and patent applications of the Company Patents as set forth in the Patent Schedule with respect to the Products; the Company and UTRF are similarly listed in the records of corresponding foreign agencies with respect to the foreign counterparts of the Company Patents with respect to the Products; except for the rights of UTRF, Orion, and The Ohio State University ("OSU") that are described in the Registration Statement, the Disclosure Package and the Final Prospectus as amended or supplemented, the rights of the OSU solely to receive payments from UTRF with respect to certain patent applications and related patents and to utilize certain of the Company Patents for academic, non-commercial purposes, the rights of the United States government pursuant to 35 U.S.C. § 200 et seq. relating to a Product Candidate, and the nonexclusive rights that the Company granted to third party contractors to perform activities on the Company's behalf to develop Product Candidates, no other entity or individual has any right, title or interest in the Company Patents; there are no legal or governmental proceedings pending relating to Company Patents other than PTO or World Intellectual Property Organization ("WIPO") (or patent offices in other jurisdictions) review of pending applications for patents, and, other than PTO or WIPO (or patent offices in other jurisdictions) review of pending applications for patents, to the Company's knowledge, no such proceedings are threatened or contemplated by governmental authorities or others, and the Company is not aware of any fact that is likely to result in any such proceeding; and the Company is diligently prosecuting, and shall continue to diligently prosecute, claims in the patent applications within the Company Patents which claim Products or methods related to their manufacture and use.

(dd) The Company possesses all registrations, approvals, certificates, authorizations and permits issued by the appropriate federal, state, local or foreign regulatory authorities necessary to conduct its business as described in the Registration Statement, the Disclosure Package and the Final Prospectus as amended or supplemented,

including without limitation, all such registrations, approvals, certificates, authorizations and permits required by the United States Food and Drug Administration (the "FDA") or any other federal, state, local or foreign agencies or bodies engaged in the regulation of pharmaceuticals or biohazardous substances or materials, except where the failure to possess such registrations, approvals, certificates, authorizations and permits, singly or in the aggregate, would not have a Material Adverse Effect; and the Company has not received any notice of proceedings relating to, and there are no facts or circumstances, including without limitation facts or circumstances relating to the withdrawal, revocation, suspension, modification or termination of any registration, approval, certificate, authorization or permit held by others, known to the Company that could lead to, the withdrawal, revocation, suspension, modification or termination of any such registration, approval, certificate, authorization or permit, which, singly or in the aggregate, if the subject of an unfavorable decision, ruling or finding, could result in a Material Adverse Effect.

(ee) The Company and, to the Company's knowledge, others who perform services on the Company's behalf have been and are in compliance with all applicable federal, state, local and foreign laws, rules, regulations, standards, orders and decrees governing their respective businesses, including without limitation, all regulations promulgated by the FDA or any other federal, state, local or foreign agencies or bodies engaged in the regulation of pharmaceuticals or biohazardous substances or materials, except where noncompliance would not, singly or in the aggregate, have a Material Adverse Effect; and the Company has not received any notice citing action or inaction by the Company or others who perform services on the Company's behalf that would constitute non-compliance with any applicable federal, state, local or foreign laws, rules, regulations or standards.

(ff) The tests and preclinical and clinical studies conducted by or on behalf of the Company that are described in the Registration Statement, the Disclosure Package and the Final Prospectus as amended or supplemented were and, if still pending, are being, conducted in all material respects in accordance with experimental protocols, procedures and controls generally used by qualified experts in the preclinical and clinical study of new drugs, and laws and regulations; the descriptions of the tests and preclinical and clinical studies, and results thereof, conducted by or on behalf of the Company contained in the Registration Statement, the Disclosure Package and the Final Prospectus as amended or supplemented are accurate in all material respects; the Company has not received any written notice or correspondence from the FDA or any foreign, state or local governmental body exercising comparable authority or any Institutional Review Board or comparable authority requiring the termination, suspension, material modification or clinical hold of any tests or preclinical or clinical studies conducted by or on behalf of the Company, which termination, suspension, material modification or clinical hold would reasonably be expected to have a Material Adverse Effect; and the Company has not received any written notices or correspondence from others concerning the termination, suspension, material modification or clinical hold of any tests or preclinical or clinical studies conducted by others on any active ingredient contained in the existing products of the Company or the products described in the Registration Statement, the Disclosure Package and the Final Prospectus as amended or supplemented as being under

development, which termination, suspension, material modification or clinical hold would reasonably be expected to have a Material Adverse Effect.

(gg) The Company has all consents, authorizations, approvals, orders, certificates and permits of and from, and has made all declarations and filings with, all foreign, federal, state, local and other governmental authorities, all self-regulatory organizations and all courts and other tribunals necessary to own, lease, license and use its properties and assets and to conduct its business in the manner in which it is described in the Registration Statement, the Disclosure Package and the Final Prospectus as amended or supplemented, except for such consents, authorizations, approvals, orders, certificates, permits, declarations and filings the failure of which to have, maintain or make would not have a Material Adverse Effect; the Company has not received any notice of proceedings relating to the revocation or modification of any such consent, authorization, approval, order, certificate or permit; and the Company is in compliance with all applicable foreign, federal, state and local laws and regulations, except for any noncompliance that, singly or in the aggregate, would not have a Material Adverse Effect.

(hh) There are no contracts, agreements or understandings between the Company and any person granting such person the right to require the Company to file a registration statement under the Act with respect to any securities of the Company or to include any securities of the Company with the Securities registered pursuant to the Registration Statement, except as otherwise disclosed in the Registration Statement, the Disclosure Package and the Final Prospectus as amended or supplemented or as have been waived in writing by such person.

(ii) The Company (i) is in compliance with any and all applicable foreign, federal, state and local laws, regulations and common law standards of conduct relating to the protection of human health and safety, the environment or hazardous or toxic substances, chemicals, wastes, pollutants and contaminants ("Environmental Laws"), (ii) has received all permits, licenses or other approvals required of them under applicable Environmental Laws to conduct its businesses as described in the Registration Statement, the Disclosure Package and the Final Prospectus as amended or supplemented, (iii) is in compliance with all terms and conditions of any such permit, license or approval, (iv) is not subject to any liability under any Environmental Law for the release or disposal of any substance regulated pursuant to any Environmental Law, (v) has not received any claim, notice or demand indicating that it may be in violation of, or subject to liability or costs under, any Environmental Law and (vi) is not subject to any order, decree, injunction or agreement with any governmental authority or any third party concerning obligations or liabilities relating to any Environmental Law, except where such noncompliance with Environmental Laws, failure to receive required permits, licenses or other approvals or failure to comply with the terms and conditions of such permits, licenses or approvals or liabilities, claims, orders or agreement would not, singly or in the aggregate, have a Material Adverse Effect.

(jj) The Company has reasonably concluded that the costs and liabilities associated with the effect of Environmental Laws on the business, operations and

properties of the Company (including, without limitation, any capital or operating expenditures required for clean-up, closure of properties or compliance with Environmental Laws, or any permit, license or approval, any related constraints on operating activities and any potential liabilities to third parties) would not, singly or in the aggregate, have a Material Adverse Effect, except as set forth in or contemplated in the Disclosure Package and the Final Prospectus (exclusive of any supplement thereto).

(kk) The Company is not involved in any labor dispute nor, to the Company's knowledge, is any such dispute threatened; and the Company is not aware that (i) any executive, key employee, key consultant or significant group of employees or consultants of the Company plans to terminate his or her employment or consulting arrangement with the Company or (ii) any such executive, key employee or key consultant is subject to any noncompete, nondisclosure, confidentiality, employment, consulting or similar agreement that would be violated by the present or proposed business activities of the Company.

(ll) The Company is insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as are prudent and customary in the business in which the Company is engaged, the Company has not been refused any insurance coverage sought or applied for; and the Company does not have any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business at a cost that would not have a Material Adverse Effect.

(mm) Each material contract, agreement and license filed as an exhibit to the Registration Statement to which the Company is currently bound is legal, valid, binding, enforceable in accordance with its terms and in full force and effect against the Company and, to the Company's knowledge, each other party thereto; except as described in the Registration Statement, the Disclosure Package and the Final Prospectus as amended or supplemented, neither the Company nor, to the Company's knowledge, any other party, is in material breach or default with respect to any such contract, agreement and license, and, to the Company's knowledge, no event has occurred which with notice or lapse of time would constitute a material breach or default, or permit termination, modification, or acceleration, under any such contract, agreement or license; and to the Company's knowledge, no party has repudiated any material provision of any such contract, agreement or license.

(nn) The statistical and market-related data included in the Registration Statement, the Disclosure Package and the Final Prospectus as amended or supplemented are based on or derived from sources which the Company reasonably and in good faith believes are reliable and accurate, and such data agree with the sources from which they are derived.

(oo) None of the following events has occurred or exists: (i) a failure to fulfill the obligations, if any, under the minimum funding standards of Section 302 of the United States Employee Retirement Income Security Act of 1974, as amended ("ERISA"), and the regulations and published interpretations thereunder with respect to a Plan, determined without regard to any waiver of such obligations or extension of any

amortization period; (ii) an audit or investigation by the Internal Revenue Service, the U.S. Department of Labor, the Pension Benefit Guaranty Corporation or any other federal or state governmental agency or any foreign regulatory agency with respect to the employment or compensation of employees by any of the Company that could have a Material Adverse Effect; (iii) any breach of any contractual obligation, or any violation of law or applicable qualification standards, with respect to the employment or compensation of employees by the Company that could have a Material Adverse Effect. None of the following events has occurred or, to the knowledge of the Company, is reasonably likely to occur: (i) a material increase in the aggregate amount of contributions required to be made to all Plans in the current fiscal year of the Company compared to the amount of such contributions made in the most recently completed fiscal year of the Company; (ii) a material increase in the “accumulated post-retirement benefit obligations” (within the meaning of Statement of Financial Accounting Standards 106) of the Company compared to the amount of such obligations in the most recently completed fiscal year of the Company; (iii) any event or condition giving rise to a liability under Title IV of ERISA that could have a Material Adverse Effect; or (iv) the filing of a claim by one or more employees or former employees of the Company related to their employment that could have a Material Adverse Effect. For purposes of this paragraph, the term “Plan” means a plan (within the meaning of Section 3(3) of ERISA) subject to Title IV of ERISA with respect to which the Company may have any liability.

(pp) The Company has filed all tax returns that are required to be filed or has requested extensions thereof (except in any case in which the failure so to file would not have a Material Adverse Effect, except as set forth in or contemplated in the Disclosure Package and the Final Prospectus (exclusive of any supplement thereto)) and has paid all taxes required to be paid by it and any other assessment, fine or penalty levied against it, to the extent that any of the foregoing is due and payable, except for any such assessment, fine or penalty that is currently being contested in good faith or as would not have a Material Adverse Effect, except as set forth in or contemplated in the Disclosure Package and the Final Prospectus (exclusive of any supplement thereto).

(qq) There are no transfer taxes or other similar fees or charges under Federal law or the laws of any state, or any political subdivision thereof, required to be paid in connection with the execution and delivery of this Agreement or the issuance by the Company or sale by the Company of the Securities.

(rr) Neither the Company nor, to the knowledge of the Company, any director, officer, agent, employee or affiliate of the Company is aware of or has taken any action, directly or indirectly, that would result in a violation by such persons of the Foreign Corrupt Practices Act of 1977, as amended, and the rules and regulations thereunder (the “FCPA”), including, without limitation, making use of the mails or any means or instrumentality of interstate commerce corruptly in furtherance of an offer, payment, promise to pay or authorization of the payment of any money, or other property, gift, promise to give, or authorization of the giving of anything of value to any “foreign official” (as such term is defined in the FCPA) or any foreign political party or official thereof or any candidate for foreign political office, in contravention of the FCPA; and the Company and, to the knowledge of the Company, its affiliates have conducted their

businesses in compliance with the FCPA and have instituted and maintain policies and procedures designed to ensure, and which are reasonably expected to continue to ensure, continued compliance therewith.

(ss) The operations of the Company are and have been conducted at all times in compliance with applicable financial recordkeeping and reporting requirements and the money laundering statutes and the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any governmental agency (collectively, the "Money Laundering Laws") and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company with respect to the Money Laundering Laws is pending or, to the best knowledge of the Company, threatened.

(tt) Neither the Company nor, to the knowledge of the Company, any director, officer, agent, employee or affiliate of the Company is currently subject to any sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department ("OFAC"); and the Company will not directly or indirectly use the proceeds of the offering, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other person or entity, for the purpose of financing the activities of any person currently subject to any U.S. sanctions administered by OFAC.

(uu) The Company satisfies the eligibility requirements in existence immediately prior to October 21, 1992 for the use of a registration statement on Form S-3 for the offering of the Securities.

Any certificate signed by any officer of the Company and delivered to the Representative or counsel for the Underwriters in connection with the offering of the Securities shall be deemed a representation and warranty by the Company, as to matters covered thereby, to each Underwriter.

2. Purchase and Sale.

(a) Subject to the terms and conditions and in reliance upon the representations and warranties herein set forth, the Company agrees to sell to each Underwriter, and each Underwriter agrees, severally and not jointly, to purchase from the Company, at the purchase price set forth in Schedule I hereto, the number of Underwritten Securities set forth opposite such Underwriter's name in Schedule II hereto.

(b) Subject to the terms and conditions and in reliance upon the representations and warranties herein set forth, the Company hereby grants an option to the several Underwriters to purchase, severally and not jointly, up to the number of Option Securities set forth in Schedule I hereto at the same purchase price per share as the Underwriters shall pay for the Underwritten Securities, less an amount per share equal to any dividends or distributions declared by the Company and payable on the Underwritten Securities but not payable on the Option Securities. Said option may be exercised only to cover over-allotments in the sale of the Underwritten Securities by the Underwriters. Said option may be exercised in whole or in part at any time on or before

the 30th day after the date of the Final Prospectus upon written or telegraphic notice by the Representative to the Company setting forth the number of Option Securities as to which the several Underwriters are exercising the option and the settlement date. The number of Option Securities to be purchased by each Underwriter shall be the same percentage of the total number of Option Securities to be purchased by the several Underwriters as such Underwriter is purchasing of the Underwritten Securities, subject to such adjustments as you in your absolute discretion shall make to eliminate any fractional shares.

3. Delivery and Payment. Delivery of and payment for the Underwritten Securities and the Option Securities (if the option provided for in Section 2(b) hereof shall have been exercised on or before the third Business Day immediately preceding the Closing Date) shall be made on the date and at the time specified in Schedule I hereto or at such time on such later date not more than three Business Days after the foregoing date as the Representative shall designate, which date and time may be postponed by agreement between the Representative and the Company or as provided in Section 9 hereof (such date and time of delivery and payment for the Securities being herein called the "Closing Date"). Delivery of the Securities shall be made to the Representative for the respective accounts of the several Underwriters against payment by the several Underwriters through the Representative of the purchase price thereof to or upon the order of the Company by wire transfer payable in same-day funds to an account specified by the Company. Delivery of the Underwritten Securities and the Option Securities shall be made through the facilities of The Depository Trust Company unless the Representative shall otherwise instruct.

If the option provided for in Section 2(b) hereof is exercised after the third Business Day immediately preceding the Closing Date, the Company will deliver the Option Securities (at the expense of the Company) to the Representative, at 388 Greenwich Street, New York, New York, on the date specified by the Representative (which shall be within three Business Days after exercise of said option) for the respective accounts of the several Underwriters, against payment by the several Underwriters through the Representative of the purchase price thereof to or upon the order of the Company by wire transfer payable in same-day funds to an account specified by the Company. If settlement for the Option Securities occurs after the Closing Date, the Company will deliver to the Representative on the settlement date for the Option Securities, and the obligation of the Underwriters to purchase the Option Securities shall be conditioned upon receipt of, supplemental opinions, certificates and letters confirming as of such date the opinions, certificates and letters delivered on the Closing Date pursuant to Section 6 hereof.

4. Offering by Underwriters. It is understood that the several Underwriters propose to offer the Securities for sale to the public as set forth in the Final Prospectus.

5. Agreements. The Company agrees with the several Underwriters that:

(a) Prior to the termination of the offering of the Securities, the Company will not file any amendment of the Registration Statement or supplement (including the Final Prospectus or any Preliminary Prospectus) to the Base Prospectus or any Rule 462(b) Registration Statement unless the Company has furnished you a copy for your review

prior to filing and will not file any such proposed amendment or supplement to which you reasonably object. The Company will cause the Final Prospectus, properly completed, and any supplement thereto to be filed in a form approved by the Representative with the Commission pursuant to the applicable paragraph of Rule 424(b) within the time period prescribed and will provide evidence satisfactory to the Representative of such timely filing. The Company will promptly advise the Representative (i) when the Final Prospectus, and any supplement thereto, shall have been filed (if required) with the Commission pursuant to Rule 424(b) or when any Rule 462(b) Registration Statement shall have been filed with the Commission, (ii) when, prior to termination of the offering of the Securities, any amendment to the Registration Statement shall have been filed or become effective, (iii) of, prior to termination of the offering of the Securities, any request by the Commission or its staff for any amendment of the Registration Statement, or any Rule 462(b) Registration Statement, or for any supplement to the Final Prospectus or for any additional information, (iv) of, prior to termination of the offering of the Securities, the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or of any notice objecting to its use or the institution or threatening of any proceeding for that purpose and (v) of the receipt by the Company of any notification with respect to the suspension of the qualification of the Securities for sale in any jurisdiction or the institution or threatening of any proceeding for such purpose. The Company will use its best efforts to prevent the issuance of any such stop order or the occurrence of any such suspension or objection to the use of the Registration Statement and, upon such issuance, occurrence or notice of objection, to obtain as soon as possible the withdrawal of such stop order or relief from such occurrence or objection, including, if necessary, by filing an amendment to the Registration Statement or a new registration statement and using its best efforts to have such amendment or new registration statement declared effective as soon as practicable.

(b) If, at any time prior to the filing of the Final Prospectus pursuant to Rule 424(b), any event occurs as a result of which the Disclosure Package would include any untrue statement of a material fact or omit to state any material fact necessary to make the statements therein in the light of the circumstances under which they were made or the circumstances then prevailing not misleading, the Company will (i) notify promptly the Representative so that any use of the Disclosure Package may cease until it is amended or supplemented; (ii) amend or supplement the Disclosure Package to correct such statement or omission; and (iii) supply any amendment or supplement to you in such quantities as you may reasonably request.

(c) If, at any time when a prospectus relating to the Securities is required to be delivered under the Act (including in circumstances where such requirement may be satisfied pursuant to Rule 172), any event occurs as a result of which the Final Prospectus as then supplemented would include any untrue statement of a material fact or omit to state any material fact necessary to make the statements therein in the light of the circumstances under which they were made at such time not misleading, or if it shall be necessary to amend the Registration Statement, file a new registration statement or supplement the Final Prospectus to comply with the Act or the Exchange Act, including in connection with use or delivery of the Final Prospectus, the Company promptly will (i) notify the Representative of any such event, (ii) prepare and file with the Commission,

subject to the second sentence of paragraph (a) of this Section 5, an amendment or supplement or new registration statement which will correct such statement or omission or effect such compliance, (iii) use its best efforts to have any amendment to the Registration Statement or new registration statement declared effective as soon as practicable in order to avoid any disruption in use of the Final Prospectus and (iv) supply any supplemented Final Prospectus to you in such quantities as you may reasonably request.

(d) As soon as practicable, the Company will make generally available to its security holders and to the Representative an earnings statement or statements of the Company which will satisfy the provisions of Section 11(a) of the Act and Rule 158.

(e) The Company will furnish to the Representative and counsel for the Underwriters, without charge, signed copies of the Registration Statement (including exhibits thereto) and to each other Underwriter a copy of the Registration Statement (without exhibits thereto) and, so long as delivery of a prospectus by an Underwriter or dealer may be required by the Act (including in circumstances where such requirement may be satisfied pursuant to Rule 172), as many copies of each Preliminary Prospectus, the Final Prospectus and each Issuer Free Writing Prospectus and any supplement thereto as the Representative may reasonably request. The Company will pay the expenses of printing or other production of all documents relating to the offering.

(f) The Company will arrange, if necessary, for the qualification of the Securities for sale under the laws of such jurisdictions as the Representative may designate and will maintain such qualifications in effect so long as required for the distribution of the Securities; provided that in no event shall the Company be obligated to qualify to do business in any jurisdiction where it is not now so qualified or to take any action that would subject it to service of process in suits, other than those arising out of the offering or sale of the Securities, in any jurisdiction where it is not now so subject.

(g) The Company agrees that, unless it has or shall have obtained the prior written consent of the Representative, and each Underwriter, severally and not jointly, agrees with the Company that, unless it has or shall have obtained, as the case may be, the prior written consent of the Company, it has not made and will not make any offer relating to the Securities that would constitute an Issuer Free Writing Prospectus or that would otherwise constitute a "free writing prospectus" (as defined in Rule 405) required to be filed by the Company with the Commission or retained by the Company under Rule 433; provided that the prior written consent of the parties hereto shall be deemed to have been given in respect of the Free Writing Prospectuses included in Schedule III hereto and any electronic road show. Any such free writing prospectus consented to by the Representative or the Company is hereinafter referred to as a "Permitted Free Writing Prospectus." The Company agrees that (x) it has treated and will treat, as the case may be, each Permitted Free Writing Prospectus as an Issuer Free Writing Prospectus and (y) it has complied and will comply, as the case may be, with the requirements of Rules 164 and 433 applicable to any Permitted Free Writing Prospectus, including in respect of timely filing with the Commission, legending and record keeping.

(h) The Company will not, without the prior written consent of Citigroup Global Markets Inc., offer, sell, contract to sell, pledge, or otherwise dispose of, (or enter into any transaction which is designed to, or might reasonably be expected to, result in the disposition (whether by actual disposition or effective economic disposition due to cash settlement or otherwise) by the Company or any affiliate of the Company or any person in privity with the Company or any affiliate of the Company) directly or indirectly, including the filing (or participation in the filing) of a registration statement with the Commission in respect of, or establish or increase a put equivalent position or liquidate or decrease a call equivalent position within the meaning of Section 16 of the Exchange Act, any other shares of Common Stock or any securities convertible into, or exercisable, or exchangeable for, shares of Common Stock; or publicly announce an intention to effect any such transaction, until the Business Day set forth on Schedule I hereto, provided, however, that the foregoing restrictions shall not in any event apply to: (i) the issuance of Common Stock, options to acquire Common Stock or other equity awards pursuant to the Company's employee benefit plans, stock option plans, directors' deferred compensation plan or other equity compensation plans (as such plans are in existence on the date hereof and described in the Disclosure Package and the Final Prospectus), and the issuance of Common Stock pursuant to the valid exercises of options, warrants or rights outstanding on the date hereof; (ii) the issuance of Common Stock or securities convertible into or exercisable or exchangeable for Common Stock issued in connection with strategic transactions involving the Company and other entities, including without limitation (A) joint ventures, manufacturing, marketing or distribution arrangements or (B) technology transfers or development arrangements; (iii) the filing by the Company of any registration statement on Form S-8 relating to employee or director benefit plans; or (iv) the filing by the Company of any registration statement the Company is contractually obligated to file (the "Oracle Registration Statement") pursuant to that certain Amended and Restated Registration Rights Agreement, dated as of August 7, 2003 (the "Amended RRA"), as amended, between the Company and Oracle Partners, L.P.; however, the Company agrees that it shall not file with the Commission such Oracle Registration Statement prior to the last day on which the Company is permitted to file such Oracle Registration Statement under the terms of the Amended RRA. Notwithstanding the foregoing, if (x) during the last 17 days of the restricted period the Company issues an earnings release or material news or a material event relating to the Company occurs, or (y) prior to the expiration of the restricted period, the Company announces that it will release earnings results during the 16-day period beginning on the last day of the restricted period, the restrictions imposed in this clause shall continue to apply until the expiration of the 18-day period beginning on the issuance of the earnings release or the occurrence of the material news or material event. The Company will provide the Representative and any co-managers and each individual subject to the restricted period pursuant to the lockup letters described in Section 6(l) with prior notice of any such announcement that gives rise to an extension of the restricted period.

(i) The Company will not take, directly or indirectly, any action designed to or that would constitute or that might reasonably be expected to cause or result in, under the Exchange Act or otherwise, stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Securities.

(j) The Company agrees to pay the costs and expenses relating to the following matters: (i) the preparation, printing or reproduction and filing with the Commission of the Registration Statement (including financial statements and exhibits thereto), each Preliminary Prospectus, the Final Prospectus and each Issuer Free Writing Prospectus, and each amendment or supplement to any of them; (ii) the printing (or reproduction) and delivery (including postage, air freight charges and charges for counting and packaging) of such copies of the Registration Statement, each Preliminary Prospectus, the Final Prospectus and each Issuer Free Writing Prospectus, and all amendments or supplements to any of them, as may, in each case, be reasonably requested for use in connection with the offering and sale of the Securities; (iii) the preparation, printing, authentication, issuance and delivery of certificates for the Securities, including any stamp or transfer taxes in connection with the original issuance and sale of the Securities; (iv) the printing (or reproduction) and delivery of this Agreement, any blue sky memorandum and all other agreements or documents printed (or reproduced) and delivered in connection with the offering of the Securities; (v) the registration of the Securities under the Exchange Act and the listing of the Securities on the Nasdaq GM; (vi) any registration or qualification of the Securities for offer and sale under the securities or blue sky laws of the several states (including filing fees and the reasonable and reasonably-documented fees and expenses of counsel for the Underwriters relating to such registration and qualification); (vii) any filings required to be made with FINRA (including filing fees and the reasonable and reasonably-documented fees and expenses of counsel for the Underwriters relating to such filings); (viii) the transportation and other expenses incurred by or on behalf of Company representatives in connection with presentations to prospective purchasers of the Securities; (ix) the fees and expenses of the Company's accountants and the fees and expenses of counsel (including local and special counsel) for the Company; and (x) all other costs and expenses incident to the performance by the Company of its obligations hereunder.

6. Conditions to the Obligations of the Underwriters. The obligations of the Underwriters to purchase the Underwritten Securities and the Option Securities, as the case may be, shall be subject to the accuracy of the representations and warranties on the part of the Company contained herein as of the Execution Time, the Closing Date and any settlement date pursuant to Section 3 hereof, to the accuracy of the statements of the Company made in any certificates pursuant to the provisions hereof, to the performance by the Company of its obligations hereunder and to the following additional conditions:

(a) The Final Prospectus, and any supplement thereto, have been filed in the manner and within the time period required by Rule 424(b); any other material required to be filed by the Company pursuant to Rule 433(d) under the Act, shall have been filed with the Commission within the applicable time periods prescribed for such filings by Rule 433; and no stop order suspending the effectiveness of the Registration Statement or any notice objecting to its use shall have been issued and no proceedings for that purpose shall have been instituted or threatened.

(b) The Company shall have requested and caused Cooley LLP, counsel for the Company, to have furnished to the Representative their opinion and negative

assurances statement, dated the Closing Date and addressed to the Representative, in each case in form and substance reasonably satisfactory to counsel to the Underwriters.

(c) The Company shall have requested and caused Bass, Berry & Sims PLC, counsel for the Company, to have furnished to the Representative their opinion, dated the Closing Date and addressed to the Representative, in form and substance reasonably satisfactory to counsel to the Underwriters.

(d) The Company shall have requested and caused Pearl Cohen Zedek Latzer LLP, special patent counsel for the Company, to have furnished to the Representative their opinion, dated the Closing Date and addressed to the Representative, in form and substance reasonably satisfactory to counsel to the Underwriters.

(e) The Company shall have requested and caused Ropes & Gray LLP, special regulatory counsel for the Company, to have furnished to the Representative their opinion, dated the Closing Date and addressed to the Representative, in form and substance reasonably satisfactory to counsel to the Underwriters.

(f) The Representative shall have received from Goodwin Procter LLP, counsel for the Underwriters, such opinion or opinions, dated the Closing Date and addressed to the Representative, with respect to the issuance and sale of the Securities, the Registration Statement, the Disclosure Package, the Final Prospectus (together with any supplement thereto) and other related matters as the Representative may reasonably require, and the Company shall have furnished to such counsel such documents as they request for the purpose of enabling them to pass upon such matters.

(g) The Company shall have furnished to the Representative a certificate of the Company, signed by the Chairman of the Board or the Chief Executive Officer and the principal financial or accounting officer of the Company, dated the Closing Date, to the effect that the signers of such certificate have carefully examined the Registration Statement, the Disclosure Package, the Final Prospectus and any supplements or amendments thereto, as well as each electronic road show used in connection with the offering of the Securities, and this Agreement and that:

(i) the representations and warranties of the Company in this Agreement are true and correct on and as of the Closing Date with the same effect as if made on the Closing Date and the Company has complied with all the agreements and satisfied all the conditions on its part to be performed or satisfied at or prior to the Closing Date;

(ii) no stop order suspending the effectiveness of the Registration Statement or any notice objecting to its use has been issued and no proceedings for that purpose have been instituted and communicated to the Company or, to the Company's knowledge, threatened; and

(iii) since the date of the most recent financial statements included in the Disclosure Package and the Final Prospectus (exclusive of any supplement

thereto), there has been no Material Adverse Effect, except as set forth in or contemplated in the Disclosure Package and the Final Prospectus (exclusive of any supplement thereto).

(h) The Company shall have requested and caused Ernst & Young LLP to have furnished to the Representative, at the Execution Time and at the Closing Date, letters, (which may refer to letters previously delivered to the Representative), dated respectively as of the Execution Time and as of the Closing Date, in form and substance satisfactory to the Representative, confirming that they are independent accountants within the meaning of the Act and the Exchange Act and that they have performed a review of the unaudited interim financial information of the Company for the three-month period ended March 31, 2011, and as at March 31, 2011 in accordance with Statement on Auditing Standards No. 100, and stating that in their opinion the financial statements and schedules examined by them and included or incorporated by reference in the Registration Statement, the Disclosure Package and the Final Prospectus comply in form in all material respects with the applicable accounting requirements of the Act and the Exchange Act, and containing such other statements and information as is ordinarily included in accountants' "comfort letters" to underwriters with respect to the financial statements and certain financial and statistical information included or incorporated by reference in the Registration Statement, the Disclosure Package and the Final Prospectus.

(i) Subsequent to the Execution Time or, if earlier, the dates as of which information is given in the Registration Statement (exclusive of any amendment thereof) and the Final Prospectus (exclusive of any amendment or supplement thereto), there shall not have been (i) any change or decrease specified in the letter or letters referred to in paragraph (g) of this Section 6 or (ii) any change, or any development involving a prospective change, in or affecting the condition (financial or otherwise), earnings, business or properties of the Company, whether or not arising from transactions in the ordinary course of business, except as set forth in or contemplated in the Disclosure Package and the Final Prospectus (exclusive of any amendment or supplement thereto) the effect of which, in any case referred to in clause (i) or (ii) above, is, in the sole judgment of the Representative, so material and adverse as to make it impractical or inadvisable to proceed with the offering or delivery of the Securities as contemplated by the Registration Statement (exclusive of any amendment thereof), the Disclosure Package and the Final Prospectus (exclusive of any amendment or supplement thereto).

(j) Subsequent to the Execution Time, there shall not have been any decrease in the rating of any of the Company's debt securities by any "nationally recognized statistical rating organization" (as defined for purposes of Rule 436(g) under the Act) or any notice given of any intended or potential decrease in any such rating or of a possible change in any such rating that does not indicate the direction of the possible change.

(k) The Company shall have filed a Notification: Listing of Additional Shares with the Nasdaq GM with respect to the Securities and shall have received no objection thereto from the Nasdaq GM.

(l) At the Execution Time, the Company shall have furnished to the Representative a letter substantially in the form of Exhibit A hereto from each executive officer and director of the Company addressed to the Representative.

(m) Prior to the Closing Date, the Company shall have furnished to the Representative such further information, certificates (including a Secretary's Certificate) and documents as the Representative may reasonably request.

If any of the conditions specified in this Section 6 shall not have been fulfilled when and as provided in this Agreement, or if any of the opinions and certificates mentioned above or elsewhere in this Agreement shall not be reasonably satisfactory in form and substance to the Representative and counsel for the Underwriters, this Agreement and all obligations of the Underwriters hereunder may be canceled at, or at any time prior to, the Closing Date by the Representative. Notice of such cancellation shall be given to the Company in writing or by telephone or facsimile confirmed in writing.

The documents required to be delivered by this Section 6 shall be delivered at the office of Goodwin Procter LLP, counsel for the Underwriters, at The New York Times Building, 620 Eighth Avenue, New York, New York, on the Closing Date.

7. Reimbursement of Underwriters' Expenses. If the sale of the Securities provided for herein is not consummated because any condition to the obligations of the Underwriters set forth in Section 6 hereof is not satisfied, because of any termination pursuant to Section 10 hereof or because of any refusal, inability or failure on the part of the Company to perform any agreement herein or comply with any provision hereof other than by reason of a default by any of the Underwriters, the Company will reimburse the Underwriters severally through Citigroup Global Markets Inc. on demand for all out of pocket expenses (including reasonable and reasonably-documented fees and disbursements of counsel) that shall have been incurred by them in connection with the proposed purchase and sale of the Securities.

8. Indemnification and Contribution.

(a) The Company agrees to indemnify and hold harmless each Underwriter, the directors, officers, employees and agents of each Underwriter and each person who controls any Underwriter within the meaning of either the Act or the Exchange Act against any and all losses, claims, damages or liabilities, joint or several, to which they or any of them may become subject under the Act, the Exchange Act or other Federal or state statutory law or regulation, at common law or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon any untrue statement or alleged untrue statement of a material fact contained in the registration statement for the registration of the Securities as originally filed or in any amendment thereof, or in the Base Prospectus, any Preliminary Prospectus or any other preliminary prospectus supplement relating to the Securities, the Final Prospectus, or any Issuer Free Writing Prospectus, or in any amendment thereof or supplement thereto, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, and agrees to reimburse each such indemnified party, as incurred, for any

legal or other expenses reasonably incurred by them in connection with investigating or defending any such loss, claim, damage, liability or action; provided, however, that the Company will not be liable in any such case to the extent that any such loss, claim, damage or liability arises out of or is based upon any such untrue statement or alleged untrue statement or omission or alleged omission made therein in reliance upon and in conformity with written information furnished to the Company by or on behalf of any Underwriter through the Representative specifically for inclusion therein. This indemnity agreement will be in addition to any liability which the Company may otherwise have.

(b) Each Underwriter severally and not jointly agrees to indemnify and hold harmless the Company, each of its directors, each of its officers who signs the Registration Statement, and each person who controls the Company within the meaning of either the Act or the Exchange Act, to the same extent as the foregoing indemnity from the Company to each Underwriter, but only with reference to written information relating to such Underwriter furnished to the Company by or on behalf of such Underwriter through the Representative specifically for inclusion in the documents referred to in the foregoing indemnity. This indemnity agreement will be in addition to any liability which any Underwriter may otherwise have. The Company acknowledges that the statements set forth (i) in the last paragraph of the cover page regarding delivery of the Securities and (ii) under the heading "Underwriting", (A) the list of Underwriters and their respective participation in the sale of the Securities, (B) the sentences related to concessions and reallowances and (C) the paragraph related to stabilization, syndicate covering transactions and penalty bids, in any Preliminary Prospectus and the Final Prospectus constitute the only information furnished in writing by or on behalf of the several Underwriters for inclusion in any Preliminary Prospectus, the Final Prospectus or any Issuer Free Writing Prospectus.

(c) Promptly after receipt by an indemnified party under this Section 8 of notice of the commencement of any action, such indemnified party will, if a claim in respect thereof is to be made against the indemnifying party under this Section 8, notify the indemnifying party in writing of the commencement thereof; but the failure so to notify the indemnifying party (i) will not relieve it from liability under paragraph (a) or (b) above unless and to the extent it did not otherwise learn of such action and such failure results in the forfeiture by the indemnifying party of substantial rights and defenses and (ii) will not, in any event, relieve the indemnifying party from any obligations to any indemnified party other than the indemnification obligation provided in paragraph (a) or (b) above. The indemnifying party shall be entitled to appoint counsel of the indemnifying party's choice at the indemnifying party's expense to represent the indemnified party in any action for which indemnification is sought (in which case the indemnifying party shall not thereafter be responsible for the fees and expenses of any separate counsel retained by the indemnified party or parties except as set forth below); provided, however, that such counsel shall be satisfactory to the indemnified party. Notwithstanding the indemnifying party's election to appoint counsel to represent the indemnified party in an action, the indemnified party shall have the right to employ separate counsel (including local counsel), and the indemnifying party shall bear the reasonable fees, costs and expenses of such separate counsel if (i) the use of counsel chosen by the indemnifying party to represent the indemnified party would present such

counsel with a conflict of interest, (ii) the actual or potential defendants in, or targets of, any such action include both the indemnified party and the indemnifying party and the indemnified party shall have reasonably concluded that there may be legal defenses available to it and/or other indemnified parties which are different from or additional to those available to the indemnifying party, (iii) the indemnifying party shall not have employed counsel satisfactory to the indemnified party to represent the indemnified party within a reasonable time after notice of the institution of such action or (iv) the indemnifying party shall authorize the indemnified party to employ separate counsel at the expense of the indemnifying party. An indemnifying party will not, without the prior written consent of the indemnified parties, settle or compromise or consent to the entry of any judgment with respect to any pending or threatened claim, action, suit or proceeding in respect of which indemnification or contribution may be sought hereunder (whether or not the indemnified parties are actual or potential parties to such claim or action) unless such settlement, compromise or consent includes an unconditional release of each indemnified party from all liability arising out of such claim, action, suit or proceeding.

(d) In the event that the indemnity provided in paragraph (a) or (b) of this Section 8 is unavailable to or insufficient to hold harmless an indemnified party for any reason, the Company and the Underwriters severally agree to contribute to the aggregate losses, claims, damages and liabilities (including legal or other expenses reasonably incurred in connection with investigating or defending the same) (collectively "Losses") to which the Company and one or more of the Underwriters may be subject in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and by the Underwriters on the other from the offering of the Securities; provided, however, that in no case shall any Underwriter (except as may be provided in any agreement among underwriters relating to the offering of the Securities) be responsible for any amount in excess of the underwriting discount or commission applicable to the Securities purchased by such Underwriter hereunder. If the allocation provided by the immediately preceding sentence is unavailable for any reason, the Company and the Underwriters severally shall contribute in such proportion as is appropriate to reflect not only such relative benefits but also the relative fault of the Company on the one hand and of the Underwriters on the other in connection with the statements or omissions which resulted in such Losses as well as any other relevant equitable considerations. Benefits received by the Company shall be deemed to be equal to the total net proceeds from the offering (before deducting expenses) received by it, and benefits received by the Underwriters shall be deemed to be equal to the total underwriting discounts and commissions, in each case as set forth on the cover page of the Final Prospectus. Relative fault shall be determined by reference to, among other things, whether any untrue or any alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information provided by the Company on the one hand or the Underwriters on the other, the intent of the parties and their relative knowledge, access to information and opportunity to correct or prevent such untrue statement or omission. The Company and the Underwriters agree that it would not be just and equitable if contribution were determined by pro rata allocation or any other method of allocation which does not take account of the equitable considerations referred to above. Notwithstanding the provisions of this paragraph (d),

no person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. For purposes of this Section 8, each person who controls an Underwriter within the meaning of either the Act or the Exchange Act and each director, officer, employee and agent of an Underwriter shall have the same rights to contribution as such Underwriter, and each person who controls the Company within the meaning of either the Act or the Exchange Act, each officer of the Company who shall have signed the Registration Statement and each director of the Company shall have the same rights to contribution as the Company, subject in each case to the applicable terms and conditions of this paragraph (d).

9. Default by an Underwriter. If any one or more Underwriters shall fail to purchase and pay for any of the Securities agreed to be purchased by such Underwriter or Underwriters hereunder and such failure to purchase shall constitute a default in the performance of its or their obligations under this Agreement, the remaining Underwriters shall be obligated severally to take up and pay for (in the respective proportions which the amount of Securities set forth opposite their names in Schedule II hereto bears to the aggregate amount of Securities set forth opposite the names of all the remaining Underwriters) the Securities which the defaulting Underwriter or Underwriters agreed but failed to purchase; provided, however, that in the event that the aggregate amount of Securities which the defaulting Underwriter or Underwriters agreed but failed to purchase shall exceed 10% of the aggregate amount of Securities set forth in Schedule II hereto, the remaining Underwriters shall have the right to purchase all, but shall not be under any obligation to purchase any, of the Securities, and if such nondefaulting Underwriters do not purchase all the Securities, this Agreement will terminate without liability to any nondefaulting Underwriter or the Company. In the event of a default by any Underwriter as set forth in this Section 9, the Closing Date shall be postponed for such period, not exceeding five Business Days, as the Representative shall determine in order that the required changes in the Registration Statement and the Final Prospectus or in any other documents or arrangements may be effected. Nothing contained in this Agreement shall relieve any defaulting Underwriter of its liability, if any, to the Company and any nondefaulting Underwriter for damages occasioned by its default hereunder.

10. Termination. This Agreement shall be subject to termination in the absolute discretion of the Representative, by notice given to the Company prior to delivery of and payment for the Securities, if at any time prior to such delivery and payment (i) trading in the Company's Common Stock shall have been suspended by the Commission or the Nasdaq GM or trading in securities generally on the New York Stock Exchange or the Nasdaq GM shall have been suspended or limited or minimum prices shall have been established on either of such exchanges, (ii) a banking moratorium shall have been declared either by Federal or New York State authorities or (iii) there shall have occurred any outbreak or escalation of hostilities, declaration by the United States of a national emergency or war, or other calamity or crisis the effect of which on financial markets is such as to make it, in the sole judgment of the Representative, impractical or inadvisable to proceed with the offering or delivery of the Securities as contemplated by any Preliminary Prospectus or the Final Prospectus (exclusive of any amendment or supplement thereto).

11. Representations and Indemnities to Survive. The respective agreements, representations, warranties, indemnities and other statements of the Company or its officers and of the Underwriters set forth in or made pursuant to this Agreement will remain in full force and effect, regardless of any investigation made by or on behalf of any Underwriter or the Company or any of the officers, directors, employees, agents or controlling persons referred to in Section 8 hereof, and will survive delivery of and payment for the Securities. The provisions of Sections 7 and 8 hereof shall survive the termination or cancellation of this Agreement.

12. Notices. All communications hereunder will be in writing and effective only on receipt, and, if sent to the Representative, will be mailed, delivered or telefaxed to the Citigroup Global Markets Inc. General Counsel (fax no.: (212) 816-7912) and confirmed to the General Counsel, Citigroup Global Markets Inc., at 388 Greenwich Street, New York, New York, 10013, Attention: General Counsel; or, if sent to the Company, will be mailed, delivered or telefaxed to (901) 644-8075 and confirmed to it at 175 Toyota Plaza, 7th Floor, Memphis, Tennessee 38103, Attention: General Counsel.

13. Successors. This Agreement will inure to the benefit of and be binding upon the parties hereto and their respective successors and the officers, directors, employees, agents and controlling persons referred to in Section 8 hereof, and no other person will have any right or obligation hereunder.

14. No fiduciary duty. The Company hereby acknowledges that (a) the purchase and sale of the Securities pursuant to this Agreement is an arm's-length commercial transaction between the Company, on the one hand, and the Underwriters and any affiliate through which it may be acting, on the other, (b) the Underwriters are acting as principal and not as an agent or fiduciary of the Company and (c) the Company's engagement of the Underwriters in connection with the offering and the process leading up to the offering is as independent contractors and not in any other capacity. Furthermore, the Company agrees that it is solely responsible for making its own judgments in connection with the offering (irrespective of whether any of the Underwriters has advised or is currently advising the Company on related or other matters). The Company agrees that it will not claim that the Underwriters have rendered advisory services of any nature or respect, or owe an agency, fiduciary or similar duty to the Company, in connection with such transaction or the process leading thereto.

15. Integration. This Agreement supersedes all prior agreements and understandings (whether written or oral) between the Company and the Underwriters, or any of them, with respect to the subject matter hereof.

16. Applicable Law. This Agreement will be governed by and construed in accordance with the laws of the State of New York applicable to contracts made and to be performed within the State of New York.

17. Waiver of Jury Trial. The Company hereby irrevocably waives, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Agreement or the transactions contemplated hereby.

18. Counterparts. This Agreement may be signed in one or more counterparts, each of which shall constitute an original and all of which together shall constitute one and the same agreement.

19. Headings. The section headings used herein are for convenience only and shall not affect the construction hereof.

20. Definitions. The terms that follow, when used in this Agreement, shall have the meanings indicated.

“Act” shall mean the Securities Act of 1933, as amended, and the rules and regulations of the Commission promulgated thereunder.

“Base Prospectus” shall mean the base prospectus referred to in paragraph 1(a) above contained in the Registration Statement at the Execution Time.

“Business Day” shall mean any day other than a Saturday, a Sunday or a legal holiday or a day on which banking institutions or trust companies are authorized or obligated by law to close in New York City.

“Commission” shall mean the Securities and Exchange Commission.

“Disclosure Package” shall mean (i) the Base Prospectus, (ii) the Preliminary Prospectus used most recently prior to the Execution Time, (iii) the information set forth under “Title, Purchase Price and Description of Securities” in Schedule I hereto, (iv) the Issuer Free Writing Prospectuses, if any, identified in Schedule III hereto, and (v) any other Free Writing Prospectus that the parties hereto shall hereafter expressly agree in writing to treat as part of the Disclosure Package.

“Effective Date” shall mean each date and time that the Registration Statement, any post-effective amendment or amendments thereto and any Rule 462(b) Registration Statement became or becomes effective.

“Exchange Act” shall mean the Securities Exchange Act of 1934, as amended, and the rules and regulations of the Commission promulgated thereunder.

“Execution Time” shall mean the date and time that this Agreement is executed and delivered by the parties hereto.

“Final Prospectus” shall mean the prospectus supplement relating to the Securities that was first filed pursuant to Rule 424(b) after the Execution Time, together with the Base Prospectus.

“Free Writing Prospectus” shall mean a free writing prospectus, as defined in Rule 405.

“Issuer Free Writing Prospectus” shall mean an issuer free writing prospectus, as defined in Rule 433.

“Preliminary Prospectus” shall mean any preliminary prospectus supplement to the Base Prospectus referred to in paragraph 1(a) above which is used prior to the filing of the Final Prospectus, together with the Base Prospectus.

“Registration Statement” shall mean the registration statement referred to in paragraph 1(a) above, including exhibits and financial statements and any prospectus supplement relating to the Securities that is filed with the Commission pursuant to Rule 424(b) and deemed part of such registration statement pursuant to Rule 430B, as amended on each Effective Date and, in the event any post-effective amendment thereto or any Rule 462(b) Registration Statement becomes effective prior to the Closing Date, shall also mean such registration statement as so amended or such Rule 462(b) Registration Statement, as the case may be.

“Rule 158”, “Rule 163”, “Rule 164”, “Rule 172”, “Rule 405”, “Rule 415”, “Rule 424”, “Rule 430B”, “Rule 433” and “Rule 462” refer to such rules under the Act.

“Rule 462(b) Registration Statement” shall mean a registration statement and any amendments thereto filed pursuant to Rule 462(b) relating to the offering covered by the registration statement referred to in Section 1(a) hereof.

If the foregoing is in accordance with your understanding of our agreement, please sign and return to us the enclosed duplicate hereof, whereupon this letter and your acceptance shall represent a binding agreement among the Company and the several Underwriters.

Very truly yours,

GTx, Inc.

By: /s/ Mitchell S. Steiner

Name: Mitchell S. Steiner, M.D., F.A.C.S.

Title: Chief Executive Officer

The foregoing Agreement is hereby confirmed and accepted as of the date specified in Schedule I hereto.

Citigroup Global Markets Inc.

By: /s/ Ross Hammerman

Name: Ross Hammerman

Title: Director

For itself and the other several Underwriters, if any, named in Schedule II to the foregoing Agreement.

SCHEDULE I

Underwriting Agreement dated June 23, 2011

Registration Statement No. 333-174396

Representative: Citigroup Global Markets Inc.

Title, Purchase Price and Description of Securities:

Title: Common Stock, par value \$0.001 per share

Number of Underwritten Securities to be sold by the Company: 10,000,000

Number of Option Securities to be sold by the Company: 1,500,000

Price per share to Public: \$4.75

Price per share to the Underwriters: \$4.465

Closing Date, Time and Location: June 28, 2011, at 10:00 a.m. Eastern Time, at the offices of Goodwin Procter LLP, counsel to the Underwriters, located at
The New York Times Building, 620 Eighth Avenue, New York, New York

Date referred to in Section 5(h) after which
the Company may offer or sell securities issued
by the Company without the consent of the Representative: September 22, 2011

SCHEDULE II

<u>Underwriters</u>	<u>Number of Underwritten Securities to be Purchased</u>
Citigroup Global Markets Inc.	5,500,000
Jefferies & Company, Inc.	<u>4,500,000</u>
Total	<u>10,000,000</u>

SCHEDULE III

Schedule of Free Writing Prospectuses included in the Disclosure Package

None.

Lock-Up Agreement
GTx, Inc.
Public Offering of Common Stock

June ____, 2011

Citigroup Global Markets Inc.
As Representative of the several Underwriters
388 Greenwich Street
New York, New York 10013

Ladies and Gentlemen:

This letter is being delivered to you in connection with the proposed Underwriting Agreement (the "Underwriting Agreement") between GTx, Inc., a Delaware corporation (the "Company"), and you as representative of a group of Underwriters named therein, relating to an underwritten public offering of Common Stock, \$0.001 par value (the "Common Stock"), of the Company.

In order to induce you and the other Underwriters to enter into the Underwriting Agreement, the undersigned will not, without the prior written consent of Citigroup Global Markets Inc., offer, sell, contract to sell, pledge or otherwise dispose of, (or enter into any transaction which is designed to, or might reasonably be expected to, result in the disposition (whether by actual disposition or effective economic disposition due to cash settlement or otherwise) by the undersigned or any affiliate of the undersigned or any person in privity with the undersigned or any affiliate of the undersigned), directly or indirectly, including the filing (or participation in the filing) of a registration statement with the Securities and Exchange Commission in respect of, or establish or increase a put equivalent position or liquidate or decrease a call equivalent position within the meaning of Section 16 of the Securities Exchange Act of 1934, as amended, and the rules and regulations of the Securities and Exchange Commission promulgated thereunder with respect to, any shares of capital stock of the Company or any securities convertible into or exercisable or exchangeable for such capital stock, or publicly announce an intention to effect any such transaction, for a period of 90 days after the date of the Underwriting Agreement.

If (i) the Company issues an earnings release or material news, or a material event relating to the Company occurs, during the last 17 days of the lock-up period, or (ii) prior to the expiration of the lock-up period, the Company announces that it will release earnings results during the 16-day period beginning on the last day of the lock-up period, the restrictions imposed by this agreement shall continue to apply until the expiration of the 18-day period beginning on the issuance of the earnings release or

the occurrence of the material news or material event, unless Citigroup Global Markets Inc. waives, in writing, such extension. The undersigned hereby acknowledges that the Company has agreed in the Underwriting Agreement to provide written notice of any event that would result in an extension of the lock-up period and agrees that any such notice properly delivered will be deemed to have given to, and received by, the undersigned.

Notwithstanding the foregoing, the restrictions set forth herein shall not in any event apply to: (x) the exercise, whether on a net exercise basis or otherwise, of stock options granted to the undersigned by the Company and outstanding on the date hereof, provided that any common stock of the Company acquired upon the exercise of such options (in the case of a net exercise, after giving effect to the settlement of such net exercise) shall be subject to the restrictions imposed by this agreement; or (y) transfers of shares of capital stock of the Company or any securities convertible into or exercisable or exchangeable for such capital stock (i) as a bona fide gift or gifts or pledge, provided that the undersigned provides prior written notice of such gift or gifts or pledge to Citigroup Global Markets Inc. and the donee or donees or pledgee or pledgees (as the case may be) thereof agree to be bound by the restrictions set forth herein, (ii) either during the undersigned's lifetime or on death by will or intestacy to the undersigned's immediate family or to a trust, the beneficiaries of which are exclusively the undersigned and a member or members of the undersigned's immediate family, provided that the transferee thereof agrees to be bound by the restrictions set forth herein, (iii) to the undersigned and/or any member of the immediate family of the undersigned from or by a grantor retained annuity (or like-kind) trust which exists as of the date hereof and was established for the direct or indirect benefit of the undersigned and/or any member of the immediate family of the undersigned pursuant to the terms of such trust, provided that such shares of capital stock of the Company or any securities convertible into or exercisable or exchangeable for such capital stock are bound by the restrictions set forth herein upon distribution from such trust or (iv) in the event of a default under a pledge which exists as of the date hereof as security for a margin or loan account pursuant to the terms of such account.

[NOTE: TO BE INCLUDED IN LOCKUPS FOR H. DOGGRELL AND M. MOSTELLER ONLY: In addition, the undersigned may transfer, in open market sales, the shares of common stock of the Company that may be acquired by the undersigned upon the exercise of outstanding stock options granted to the undersigned by the Company that expire on or prior to October 1, 2011.]

In addition, if the undersigned is a partnership, limited liability company, trust, corporation or similar entity, it may distribute the shares of capital stock of the Company or any securities convertible into or exercisable or exchangeable for such capital stock to its partners, members or stockholders; provided, however, that in each such case, prior to any such transfer, each transferee shall execute a duplicate form of this letter agreement or execute an agreement, reasonably satisfactory to Citigroup Global Markets Inc., pursuant to which each transferee shall agree to receive and hold such shares of capital stock of the Company or any securities convertible into or exercisable or exchangeable for such capital stock subject to the provisions hereof, and there shall be no

further transfer except in accordance with the provisions hereof. For the purposes of this paragraph, "immediate family" shall mean spouse, domestic partner, lineal descendant (including adopted children), father, mother, brother or sister of the transferor.

If for any reason the Underwriting Agreement shall be terminated prior to the Closing Date (as defined in the Underwriting Agreement), the agreement set forth above shall likewise be terminated.

Yours very truly,

**[Signature of officer, director or
major stockholder]**

Name: _____

Address: _____

June 23, 2011

GTx, Inc.
175 Toyota Plaza, 7th Floor
Memphis, TN 38103

Ladies and Gentlemen:

You have requested our opinion with respect to certain matters in connection with the sale and issuance by GTx, Inc., a Delaware corporation (the "**Company**"), of up to an aggregate of 11,500,000 shares of the Company's common stock, par value \$0.001 per share (the "**Shares**") (including up to 1,500,000 shares that may be sold pursuant to the exercise of an over-allotment option), pursuant to the Registration Statement on Form S-3 (File No. 333-174396) (the "**Registration Statement**"), filed with the Securities and Exchange Commission (the "**Commission**") under the Securities Act of 1933, as amended (the "**Act**"), on May 20, 2011, the related prospectus dated June 2, 2011 included in the Registration Statement (the "**Base Prospectus**"), and the prospectus supplement to be filed with the Commission pursuant to Rule 424(b) promulgated under the Act (the "**Prospectus Supplement**" and, together with the Base Prospectus, the "**Prospectus**").

In connection with this opinion, we have examined and relied upon the Registration Statement, the Prospectus, the Company's Restated Certificate of Incorporation and Amended and Restated Bylaws, as currently in effect, and the originals or copies certified to our satisfaction of 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, and 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.

Our opinion is limited to the matters stated herein and no opinion is implied or may be inferred beyond the matters expressly stated. Our opinion herein is expressed solely with respect to the federal laws of the United States and the General Corporation Law of the State of Delaware. Our opinion is based on these laws as in effect on the date hereof, and we disclaim any obligation to advise you of facts, circumstances, events or developments which hereafter may be brought to our attention and which may alter, affect or modify the opinion expressed herein. We are not rendering any opinion as to compliance with any federal or state antifraud law, rule or regulation relating to securities, or to the sale or issuance thereof.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that the Shares, when sold in accordance with the Registration Statement and the Prospectus, will be validly issued, fully paid and nonassessable.

We consent to the reference to our firm under the caption "Legal Matters" in the Prospectus included in the Registration Statement and to the filing of this opinion as an exhibit to a Current Report of the Company on Form 8-K.

Sincerely,

Cooley LLP

By: /s/ Chadwick L. Mills

Chadwick L. Mills