

**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): November 5, 2007

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.)

**3 N. Dunlap Street
Van Vleet Building
Memphis, Tennessee 38163**
(Address of principal executive offices, including Zip Code)

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

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:

- 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))
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Item 1.01. Entry into a Material Definitive Agreement.

Exclusive License and Collaboration Agreement

On November 5, 2007, GTx, Inc. (the “Company”) and Merck & Co., Inc. (“Merck”) entered into a global Exclusive License and Collaboration Agreement (the “Collaboration Agreement”) governing the Company’s and Merck’s joint research, development and commercialization of selective androgen receptor modulator (“SARM”) compounds and related SARM products, including SARMS currently being developed by the Company and Merck and those yet to be discovered, for all potential indications of interest. The Collaboration Agreement will become effective upon the satisfaction of certain conditions, including the expiration or earlier termination of all waiting periods under the Hart-Scott-Rodino Antitrust Improvements Act of 1974, if applicable. The closing of the transactions contemplated by the Stock Purchase Agreement described below is also a condition to the effectiveness of the Collaboration Agreement.

Under the Collaboration Agreement, the Company will grant Merck an exclusive worldwide license under its SARM-related patents and know-how. Following the effectiveness of the Collaboration Agreement, the Company will conduct preclinical research of SARM compounds and products, and Merck will be responsible for conducting and funding development and commercialization of products developed under the Collaboration Agreement. Merck has agreed to pay the Company an upfront licensing fee of \$40 million and \$15 million in guaranteed three-year cost reimbursements for research funding (provided that with respect to Merck’s obligations for such cost reimbursements, the Collaboration Agreement is not terminated for cause and there does not occur certain change of control events involving the Company during such three-year period). The Company is also eligible to receive under the Collaboration Agreement up to \$422 million in future milestone payments associated with the development and regulatory approval of a lead product candidate, including Ostarine™, as defined in the Collaboration Agreement, if multiple indications are developed and receive required regulatory approvals, as well as additional milestone payments for the development and regulatory approval of other product candidates developed under the Collaboration Agreement, in all cases assuming the achievement of such development and regulatory approval milestones and assuming the continued effectiveness of the Collaboration Agreement. Merck also has agreed to pay the Company tiered royalties on net sales of products that may be developed under the Collaboration Agreement.

Unless terminated earlier, the Collaboration Agreement will, following its effectiveness, remain in effect in each country of sale at least until the expiration of all valid claims of the licensed patents in such country. However, Merck may terminate the Collaboration Agreement at its election at any time after a specified period of time following the effectiveness of the Collaboration Agreement, and either party may terminate the Collaboration Agreement at any time for the other party’s uncured material breach or bankruptcy. Under certain conditions, Merck will continue to owe royalties on certain products after it terminates the Collaboration Agreement without cause.

Stock Purchase Agreement

On November 5, 2007, the Company and Merck entered into a Stock Purchase Agreement (the “Stock Purchase Agreement”), pursuant to which the Company agreed to sell and Merck agreed to purchase at the closing thereunder, 1,285,347 newly-issued shares of the Company’s common stock (the “Shares”) for an aggregate purchase price of approximately \$30 million, or \$23.34 per Share. The per Share price of \$23.34 represents 140% of the average of the last reported sales prices of the Company’s common stock for the 30 consecutive trading days ended November 2, 2007. The closing of the purchase and sale of the Shares is subject to the Collaboration Agreement becoming effective as well as other customary closing conditions. In connection with the closing of the purchase and sale of the Shares, the Company and Merck have agreed to enter into a Registration Rights Agreement pursuant to which, among other things, the Company will agree to prepare and file, as soon as reasonably practicable following the closing of the purchase and sale of the Shares, a registration statement under the Securities Act of 1933, as amended (the “Act”), registering the resale of the Shares from time to time under the registration statement. In the event that the Collaboration Agreement does not become effective or is otherwise terminated prior to the closing of the purchase and sale of the Shares, the Stock Purchase Agreement would terminate in its entirety. In addition, either Merck or the Company may terminate the Stock Purchase Agreement if the closing of the purchase and sale of the Shares does not occur on or prior to January 31, 2008 (the “Reference Date”), unless the failure to consummate the closing is due to the failure of all waiting periods under the Hart-Scott-Rodino Antitrust Improvements Act of 1974

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to have expired or terminated by the Reference Date, in which case, the Reference Date would be extended to April 30, 2008.

As indicated above, the completion of the transactions contemplated by the Collaboration Agreement and the Stock Purchase Agreement is subject to customary closing conditions, including the expiration or earlier termination of all waiting periods under the Hart-Scott-Rodino Antitrust Improvements Act of 1974, if applicable, the continued accuracy of certain representation and warranties of the parties, the absence of any injunction, rule, order or the like prohibiting the completion of the transactions with Merck, and the receipt of all necessary governmental and other third-party authorizations, consents, waivers and approvals.

The foregoing is only a brief description of the material terms of the Collaboration Agreement and the Stock Purchase Agreement, does not purport to be a complete statement of the rights and obligations of the parties under these agreements and the transactions contemplated thereby, and is qualified in its entirety by reference to the Collaboration Agreement and Stock Purchase Agreement. A copy of the Stock Purchase Agreement is filed as Exhibit 10.42 hereto and is incorporated herein by reference. The Collaboration Agreement will be filed as an exhibit to the Company's Annual Report on Form 10-K for the year ending December 31, 2007.

Item 3.02. Unregistered Sales of Equity Securities.

See the description set forth under Item 1.01 above with respect to the Stock Purchase Agreement, which is incorporated into this Item 3.02 by reference. The Shares would, if issued, be issued in reliance upon exemptions from registration pursuant to Section 4(2) under the Act and Rule 506 promulgated thereunder, and Merck has represented to the Company that it is an "accredited investor" within the meaning of Rule 501 under the Act.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
10.42	Stock Purchase Agreement, dated November 5, 2007, between the Company and Merck & Co., Inc.

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: November 5, 2007

By: /s/ HENRY P. DOGGRELL
Henry P. Doggrell,
Vice President, General Counsel/Secretary

EXHIBIT INDEX

<u>Exhibit No.</u>	<u>Description</u>
10.42	Stock Purchase Agreement, dated November 5, 2007, between the Company and Merck & Co., Inc.

STOCK PURCHASE AGREEMENT

This **STOCK PURCHASE AGREEMENT** (this "**Agreement**") is made and entered into as of November 5, 2007, by and among **GTx, Inc.**, a Delaware corporation (the "**Company**"), and **MERCK & Co., Inc.**, a New Jersey corporation (the "**Investor**").

WHEREAS:

A. The Company and the Investor are executing and delivering this Agreement in reliance upon the exemption from securities registration afforded by Section 4(2) of the Securities Act of 1933, as amended (the "**Securities Act**").

B. The Investor wishes to purchase, and the Company wishes to sell, upon the terms and conditions stated in this Agreement, shares of the common stock, par value \$.001 per share, of the Company ("**Common Stock**").

Now, THEREFORE, in consideration of the mutual covenants contained in this Agreement, and for other good and valuable consideration the receipt and adequacy of which are hereby acknowledged, the Company and the Investor agree as follows:

ARTICLE I

DEFINITIONS

1.1 Definitions. In addition to the terms defined elsewhere in this Agreement, the following terms have the meanings indicated:

"**Affiliate**" of a Person means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with such Person, as such terms are used in and construed under Rule 144 under the Securities Act.

"**Applicable Laws**" has the meaning set forth in Section 3.1(j).

"**Authorizations**" has the meaning set forth in Section 3.1(j).

"**Bylaws**" has the meaning set forth in Section 3.1(b).

"**Certificate of Incorporation**" has the meaning set forth in Section 3.1(b).

"**Closing**" has the meaning set forth in Section 2.1.

"**Closing Conditions**" shall have the meaning set forth in Section 13.3 of the Collaboration Agreement.

"**Closing Date**" means the date of the Closing.

"**Collaboration Agreement**" means the Exclusive License and Collaboration Agreement, dated as of the date hereof, by and between the Company and the Investor.

"**Commission**" means the Securities and Exchange Commission.

"**Common Stock**" has the meaning set forth in the Preamble.

“**Company Counsel**” means Cooley Godward Kronish LLP, counsel to the Company.

“**Company Specified Representations**” has the meaning set forth in Section 5.1(a).

“**Disclosure Materials**” has the meaning set forth in Section 3.1(g).

“**Disclosure Schedule**” has the meaning set forth in Section 3.1.

“**Eligible Market**” means any of the New York Stock Exchange, the American Stock Exchange, The NASDAQ Global Select Market, The NASDAQ Global Market or The NASDAQ Capital Market.

“**Exchange Act**” means the Securities Exchange Act of 1934, as amended.

“**Exchange Act Documents**” has the meaning set forth in Section 3.1(r).

“**FDA**” has the meaning set forth in Section 3.1(j).

“**GAAP**” has the meaning set forth in Section 3.1(h).

“**Governmental Entity**” means any court, department, body, board, bureau, administrative agency or commission or other governmental authority or instrumentality, whether federal, state, local or foreign.

“**HSR Act**” means the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended.

“**Intellectual Property**” has the meaning set forth in Section 3.1(s).

“**Investor**” has the meaning set forth in the Preamble.

“**Investor Specified Representations**” has the meaning set forth in Section 5.2(a).

“**Knowledge**” of the Company (or similar phrases) means the actual knowledge, after reasonable consideration, of each officer (as such term is defined in Rule 16a-1(f) of the Exchange Act) of the Company, including but not limited to the Company’s Chief Executive Officer, President, Chief Financial Officer and General Counsel.

“**Lien**” means any lien, charge, claim, security interest, encumbrance, right of first refusal or other restriction.

“**Losses**” means any and all losses, claims, damages, liabilities, settlement costs and expenses of any kind or nature whatsoever (less any insurance proceeds actually recovered with respect thereto) owed by a party to this Agreement to a third-party and including, without limitation, any losses or liabilities incurred in connection with any actions, suits, proceedings (including any investigations, litigation or inquiries) demands, or causes of action, and costs of preparation and reasonable attorneys’ fees associated therewith.

“**Material Adverse Effect**,” with respect to the Company, means (i) a material adverse effect on the financial condition, properties, business or results of operations of the Company or (ii) a material adverse effect on the ability of the Company to perform its material obligations under the Transaction Documents; *provided that* none of the following shall be deemed either alone or in combination to constitute, and none of the following shall be taken into account in determining whether there has been or would be, a Material Adverse Effect on the Company: (A) any adverse effect resulting from or arising out of general economic conditions to the extent that such conditions do not disproportionately affect the

Company, (B) any adverse effect resulting from or arising out of general conditions in the industries in which the Company operates to the extent that such conditions do not disproportionately affect the Company, (C) any adverse effect resulting from or arising out of any natural disaster or any acts of terrorism, sabotage, military action or war or any escalation or worsening thereof to the extent they do not disproportionately affect the Company, (D) any adverse change in reported financial results to the extent such change results from or arises out of changes (after the date of this Agreement) in GAAP or Applicable Laws, or (E) a reduction in market price of the Company's Common Stock on the Trading Market to the extent such reduction is not related to factors that individually or in the aggregate would reasonably be expected to have a Material Adverse Effect.

"Material Agreement" means any agreement filed as an exhibit to the Exchange Act Documents.

"Per Share Price" means \$23.34.

"Person" means any individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, or joint stock company.

"Proceeding" means an action, claim, suit, investigation or proceeding (including, without limitation, an investigation or partial proceeding, such as a deposition), whether commenced or threatened in writing.

"Purchase Price" means the dollar amount obtained by multiplying the Shares by the Per Share Price, rounded to the nearest whole cent.

"Registration Rights Agreement" means the Registration Rights Agreement by and between the Company and the Investor in substantially the form of Exhibit A hereto.

"Registration Rights Waivers" has the meaning set forth in Section 4.1.

"Rule 144" means Rule 144 promulgated by the Commission pursuant to the Securities Act, as may be amended from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same effect as Rule 144.

"SEC Reports" has the meaning set forth in Section 3.1(g).

"Securities Act" means the Securities Act of 1933, as amended.

"Shares" means 1,285,347 shares of Common Stock.

"Shelf Registration Statement" has the meaning set forth in Section 2.01(a) of the Registration Rights Agreement.

"Stock Acquisition Rights" has the meaning set forth in Section 3.1(f).

"Subsidiary" means any corporation or other organization, whether incorporated or unincorporated, of which (i) 50% or more of the securities (or other interests having by their terms ordinary voting power to elect a majority of the board of directors or equivalent governing body of such corporation or other organization) is directly or indirectly owned or controlled by the relevant Person or (ii) the relevant Person (or any other subsidiary of the relevant Person) is a general partner.

“**Trading Day**” means (a) any day on which the Common Stock is listed or quoted and traded on its primary Trading Market, (b) if the Common Stock is not then listed or quoted and traded on any Eligible Market, then a day on which trading occurs on The NASDAQ Global Market (or any successor thereto), or (c) if trading ceases to occur on The NASDAQ Global Market (or any successor thereto), any day other than Saturday, Sunday or other day on which commercial banks in The City of New York are authorized or required by law to remain closed.

“**Trading Market**” means The NASDAQ Global Market or any other Eligible Market, or any national securities exchange, market or trading or quotation facility on which the Common Stock is then listed or quoted.

“**Transactions**” shall mean the activities contemplated under this Agreement and the Registration Rights Agreement.

“**Transaction Documents**” means this Agreement and the Registration Rights Agreement.

ARTICLE II

PURCHASE AND SALE

2.1 Closing. Subject to the satisfaction or waiver of all of the conditions set forth in Article V, the closing of the sale and purchase of the Shares (the “**Closing**”), shall occur at the offices of Company Counsel, 3175 Hanover Street, Palo Alto, California, 94304 (or at such other place as agreed between the parties) at 10:00 a.m., New York City Time, on or prior to the third Trading Day after the conditions to closing set forth in Article V are satisfied or waived (other than those conditions that by their nature are to be satisfied or waived at the Closing), or such other date and time as is mutually agreed to by the Company and the Investor. At the Closing, the Company shall issue and sell to the Investor, and the Investor shall purchase from the Company, the Shares for the Purchase Price.

2.2 Closing Deliveries.

(a) At the Closing, the Company shall deliver or cause to be delivered to the Investor the following:

(i) evidence reasonably satisfactory to the Investor that the Company has provided irrevocable instructions to the Company’s transfer agent to deliver to the Investor one or more stock certificates evidencing the Shares, containing only the legend expressly provided in Section 4.2(b) hereof;

(ii) a certificate of the Company signed by its Chief Executive Officer and dated the Closing Date stating that the conditions in Section 5.1(a) and 5.1(b) have been satisfied; and

(iii) an opinion of Company Counsel, in the form of **Exhibit B** hereto, executed by Company Counsel and delivered to the Investor.

(b) At the Closing, the Investor shall deliver or cause to be delivered to the Company the Purchase Price in United States dollars and in immediately available funds, by wire transfer to an account designated in writing to the Investor by the Company for such purpose.

ARTICLE III

REPRESENTATIONS AND WARRANTIES

3.1 Representations and Warranties of the Company. The Company represents and warrants to the Investor that, except as set forth in the SEC Reports and the Disclosure Schedule delivered to the Investor as of the date hereof (the “*Disclosure Schedule*”), the following are true and correct:

(a) No Interest in Any Person. The Company does not own, directly or indirectly, any capital stock, membership interests, partnership interest, joint venture interest or other equity interest (or interest that is convertible into, or exchangeable or executable for, any of the foregoing) in any Person.

(b) Organization and Qualification. The Company is an entity duly organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation, with the requisite corporate power and authority to own and use its properties and assets and to carry on its business as currently conducted. The Company has made available to the Investor a true and correct copy of its certificate of incorporation, as amended to date (the “*Certificate of Incorporation*”), and bylaws, as amended to date (the “*Bylaws*”). The Company is not in material violation of any of the provisions of the Certificate of Incorporation or Bylaws. The Company is duly qualified to do business and is in good standing as a foreign corporation in each jurisdiction in which the nature of the business conducted or property owned by it makes such qualification necessary, except where the failure to be so qualified or in good standing, as the case may be, would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(c) Authorization; Enforcement. The Company has the requisite corporate power and authority to enter into and to consummate the Transactions and otherwise to carry out its obligations under the Transaction Documents. The execution and delivery of each of the Transaction Documents by the Company and the consummation by it of the Transactions have been duly authorized by all necessary action on the part of the Company, and no further consent or action is required by the Company, the Company’s Board of Directors or its stockholders. Each of the Transaction Documents has been (or upon delivery will be) duly executed by the Company and is, or when delivered in accordance with the terms hereof, will constitute, the valid and binding obligation of the Company enforceable against the Company in accordance with its terms, except as may be limited by (i) applicable bankruptcy, insolvency, reorganization or other laws of general application relating to or affecting the enforcement of creditors rights generally, and (ii) the effect of rules of law governing the availability of specific performance and other equitable remedies.

(d) No Conflicts. The execution, delivery and performance of the Transaction Documents by the Company and the consummation by the Company of the Transactions do not, and will not, (i) conflict with or violate any provision of the Certificate of Incorporation or Bylaws, (ii) conflict with, or constitute a default (or an event that with notice or lapse of time or both would become a default) under, or give to others any rights of termination, amendment, acceleration or cancellation (with or without notice, lapse of time or both) of, any Material Agreement, or (iii) to the Company’s Knowledge, result in a material violation of any law, rule, regulation, order, judgment, injunction, decree or other restriction of any Governmental Entity to which the Company is subject (including federal and state securities laws and regulations and the rules and regulations of any self-regulatory organization to which the Company or its securities are subject), or by which any property or asset of the Company is bound or affected, except with respect to clause (ii) as would not reasonably be expected to have a Material Adverse Effect.

(e) Issuance of the Shares. The Shares are duly authorized and, when issued and paid for in accordance with this Agreement, will be duly and validly issued, fully paid and nonassessable, free and clear of all Liens and will not be subject to preemptive or similar rights of stockholders.

(f) Capitalization. The Company's authorized capital stock consists of (i) 60,000,000 shares of Common Stock, of which as of September 30, 2007 (A) 34,922,124 shares of Common Stock were issued and outstanding, (B) 1,793,786 shares of Common Stock were available for future grant under the Company's equity compensation plans, (C) 1,869,194 shares were subject to outstanding options granted under the Company's equity compensation plans and (D) 39,862 shares of Common Stock had been credited to individual director stock accounts under the Company's Directors' Deferred Compensation Plan; and (ii) 5,000,000 shares of Preferred Stock, none of which are issued and outstanding. Other than as described in the foregoing sentence, as of September 30, 2007, the Company did not have outstanding any options, warrants, script rights to subscribe to, calls or commitments of any character whatsoever relating to, or securities, rights or obligations convertible into or exercisable or exchangeable for, or any agreement giving any Person any right to subscribe for or acquire, any shares of Common Stock, or securities or rights convertible or exchangeable into shares of Common Stock (collectively, "**Stock Acquisition Rights**"). Since September 30, 2007, the Company has not issued any shares of Common Stock or issued any Stock Acquisition Rights, in each case other than options granted, and shares of Common Stock issued upon the exercise of options granted, under the Company's equity compensation plans and 2,304 shares of Common Stock issued under the Company's Directors' Deferred Compensation Plan. All outstanding shares of capital stock are duly authorized, validly issued, fully paid and nonassessable and have been issued in compliance with all applicable securities laws. Except for customary adjustments as a result of stock dividends, stock splits, combinations of shares, reorganizations, recapitalizations, reclassifications or other similar events, there are no anti-dilution or price adjustment provisions contained in any of the Company's outstanding securities (or in any agreement providing rights to security holders), and the issuance and sale of the Common Stock will not obligate the Company to issue shares of Common Stock or other securities to any Person and will not result in a right of any holder of securities to adjust the exercise, conversion, exchange or reset price under such securities. There are no agreements that require the Company to purchase any Company capital stock or Stock Acquisition Rights.

(g) SEC Reports; Financial Statements. The Company has filed all reports required to be filed by it under the Exchange Act, including pursuant to Section 13(a) or 15(d) thereof, for the twenty-four months preceding the date hereof (the foregoing materials (together with any materials filed by the Company under the Exchange Act, whether or not required) being collectively referred to herein as the "**SEC Reports**" and, together with this Agreement and the schedules to this Agreement, the "**Disclosure Materials**") on a timely basis or has properly filed a notice on Form 12b-25 with respect to an extension of such time of filing as described in Schedule 3.1(g) of the Disclosure Schedule, and has filed any such SEC Reports prior to the expiration of any such extension. As of each of their respective dates of filing, the SEC Reports complied in all material respects with the requirements of the Securities Act and the Exchange Act and the rules and regulations of the Commission promulgated thereunder, and none of the SEC Reports, when filed, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The financial statements of the Company included in the SEC Reports comply in all material respects with applicable accounting requirements and the rules and regulations of the Commission with respect thereto as in effect at the time of filing.

(h) Material Changes. Since the date of the latest quarterly financial statements included within the SEC Reports, (i) the Company has operated its business in the ordinary course, consistent with past practice, (ii) there has not been any amendment or change to the Certificate of

Incorporation or Bylaws of the Company, (iii) there has been no event, occurrence or development that, individually or in the aggregate, would reasonably be expected to have a Material Adverse Effect, (iv) the Company has not incurred any material liabilities other than (A) trade payables and accrued expenses incurred in the ordinary course of business consistent with past practice and (B) liabilities not required to be reflected in the Company's financial statements pursuant to United States generally accepted accounting principles ("**GAAP**") applied on a consistent basis during the periods involved or required to be disclosed in filings made with the Commission, (v) the Company has not altered any significant accounting policies or the identity of its auditors, (vi) the Company has not declared, set aside, or made any dividend or other distribution of cash or other property to its stockholders, in their capacities as such, or purchased, redeemed or made any agreements to purchase or redeem any shares of its capital stock (other than with respect to agreements that permit but do not require the Company to repurchase unvested shares of stock upon termination of service to the Company), and (vii) the Company has not issued any equity securities to any executive officer, director or Affiliate.

(i) Absence of Litigation. There is no Proceeding, or, to the Company's Knowledge, inquiry or investigation, before or by any court, public board, government agency, self-regulatory organization or body pending or, to the Knowledge of the Company, threatened against or affecting the Company that would, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(j) Compliance. The Company is not (i) in default under or in violation of (and no event has occurred that has not been waived that, with notice or lapse of time or both, would result in a default by the Company under), nor has the Company received written notice of a claim that it is in default under or that it is in violation of, any Material Agreement (whether or not such default or violation has been waived), (ii) in violation of any order of any court, arbitrator or governmental body, or (iii) in violation of any statute, rule or regulation of any federal, state, local or foreign governmental authority ("**Applicable Laws**"), or any license, certificate, approval, clearance, authorization, permit, supplement or amendment required by any Applicable Laws ("**Authorizations**"), except where such violation, individually or in the aggregate, has not had, and would not reasonably be expected to have, a Material Adverse Effect. The Company possesses all material Authorizations, and such material Authorizations are in full force and effect. The Company is in compliance in all material respects with all Authorizations, including, but not limited to, all laws, statutes, rules, regulations, or orders administered, issued or enforced by the United States Food and Drug Administration (the "**FDA**") or any other federal, state, local or foreign governmental authority having authority over the Company. The Company has not received from the FDA or any other Governmental Entity any written notice of adverse findings, regulatory letters, notices of violations, warning letters, criminal proceeding notices under Section 305 of the Federal Food, Drug, and Cosmetic Act alleging or asserting material noncompliance with Applicable Laws or any Authorizations. The Company has not received written notice of any Proceeding alleging that any activity is in material violation of any Applicable Laws or Authorizations and has no Knowledge that any Governmental Entity or other Person is considering any such Proceeding.

(k) Filings, Consents and Approvals. The Company is not required to obtain any consent, waiver, authorization or order from, give notice to, or make any filing or registration with, any Governmental Entity or any other Person in connection with the execution, delivery and performance by the Company of the Transaction Documents, other than (i) the Registration Rights Waivers, (ii) the filing with the Commission of the Shelf Registration Statement in accordance with the requirements of the Registration Rights Agreement, (iii) filings required by applicable state securities laws, (iv) the filing of a Notice of Sale of Securities on Form D with the Commission under Regulation D of the Securities Act, (v) the filing of any requisite notices and/or application(s) to the Trading Market for the issuance and sale of the Shares and the listing of the Shares for trading or quotation, as the case may be, thereon in the time

and manner required thereby, (vi) filings required under the HSR Act, and (vii) those that have been made or obtained prior to the date of this Agreement.

(l) No General Solicitation. Neither the Company, nor any of its Affiliates, nor any Person acting on its or their behalf, has engaged in any form of general solicitation or general advertising (within the meaning of Rule 506 of Regulation D as promulgated by the Commission) in connection with the offer or sale of the Shares. The Company is not obligated to pay any placement agent's fees, financial advisory fees, or brokers' commissions relating to or arising out of the issuance of the Shares pursuant to this Agreement. The Company shall pay, and hold the Investor harmless against, any liability, loss or expense (including, without limitation, reasonable attorney's fees and out-of-pocket expenses) arising in connection with any such claim for fees arising out of the issuance of the Shares pursuant to this Agreement.

(m) Private Placement. The offer and sale of the Shares to the Investor as contemplated hereunder is exempt from the registration requirements of the Securities Act.

(n) Form S-3 Eligibility. As of the date hereof, the Company is eligible to register the Shares for resale by the Investor using Form S-3 promulgated under the Securities Act.

(o) Listing and Maintenance Requirements. The Company has not, in the twenty-four months preceding the date hereof, received notice (written or oral) from any Trading Market on which the Common Stock is or has been listed or quoted to the effect that the Company is not in compliance with the listing or maintenance requirements of such Trading Market. The Company is in compliance in all material respects with all such listing and maintenance requirements.

(p) Registration Rights. The Company has not granted or agreed to grant to any Person any rights (including "piggy-back" registration rights) to have any securities of the Company registered with the Commission or any other governmental authority that have not been fully satisfied or irrevocably waived as to the Registration Rights Agreement and the transactions contemplated thereby.

(q) Application of Takeover Protections. Other than Section 203 of the Delaware General Corporation Law, there is no control share acquisition, business combination, poison pill (including any distribution under a rights agreement) or other similar anti-takeover provision under the Certificate of Incorporation or Bylaws, or the laws of its state of incorporation, that is or could become applicable to the Investor as a result of the Investor and the Company fulfilling their obligations or exercising their rights under the Transaction Documents, including, without limitation, as a result of the Company's issuance of the Shares and the Investor's ownership of the Shares.

(r) Disclosure. The information contained in the Exchange Act Documents as of the date hereof (each such Exchange Act Document as amended, supplemented or superseded as of the date hereof), does not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading. For purposes of this Agreement, "**Exchange Act Documents**" are the documents filed by the Company under the Section 13 or 15(d) of the Exchange Act since the end of its most recently completed fiscal year through the date hereof, including, without limitation, its most recent report on Form 10-K.

(s) Patents and Trademarks. To the Company's Knowledge, the Company owns, possesses, licenses or has other rights to use, all patents, patent applications, trade and service marks, trade and service mark registrations, trade names, copyrights, licenses, inventions, trade secrets, technology and other proprietary rights and processes (collectively, the "**Intellectual Property**") necessary

for the conduct of its business as now conducted. Except where such violations or infringements would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect, to the Company's Knowledge (i) there are no rights of third parties to any such Intellectual Property, (ii) there is no infringement by third parties of any such Intellectual Property, (iii) there is no pending or threatened action, suit, proceeding or claim by others challenging the Company's rights in or to any such Intellectual Property, (iv) there is no pending or threatened action, suit, proceeding or claim by others challenging the validity or scope of any such Intellectual Property and (iv) there is no pending or threatened action, suit, proceeding or claim by others that the Company infringes or otherwise violates any patent, trademark, copyright, trade secret or other proprietary rights of others.

(t) Insurance. 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 businesses and location in which the Company is engaged. The Company has no Knowledge 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 without a significant increase in cost.

(u) Transactions With Affiliates and Employees. None of the officers, directors or employees of the Company is presently a party to any transaction with the Company that would be required to be reported on Form 10-K (other than for ordinary course services as employees, officers or directors), including any contract, agreement or other arrangement providing for the furnishing of services to or by, providing for rental of real or personal property to or from, or otherwise requiring payments to or from any such officer, director or employee or, to the Company's Knowledge, any corporation, partnership, trust or other entity in which any such officer, director, or employee has a substantial interest or is an officer, director, trustee or partner.

(v) Internal Accounting Controls. The Company maintains a system of internal accounting controls sufficient to provide reasonable assurances that (i) transactions are executed in accordance with management's general or specific authorization, (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain accountability for assets, (iii) access to assets is permitted only in accordance with management's general or specific authorization, and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences.

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

3.2 Representations and Warranties of the Investor. The Investor represents and warrants to the Company that the following are true and correct:

(a) Organization; Authority. The Investor is an entity duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization with the requisite corporate power and authority to enter into and to consummate the Transactions and otherwise to carry out its obligations under the Transaction Documents. The purchase by the Investor of the Shares hereunder has been duly authorized by all necessary action on the part of the Investor, including approval by the Board of Directors of the Investor. This Agreement has been duly executed and delivered by the Investor and constitutes the valid and binding obligation of the Investor, enforceable against it in accordance with its terms, except as may be limited by (i) applicable bankruptcy, insolvency, reorganization or other laws of general application relating to or affecting the enforcement of creditors

rights generally and (ii) the effect of rules of law governing the availability of specific performance and other equitable remedies.

(b) No Public Sale or Distribution; Investment Intent. The Investor is acquiring the Shares in the ordinary course of business for its own account and not with a view towards, or for resale in connection with, the public sale or distribution thereof, except pursuant to sales registered under the Securities Act or under an exemption from such registration and in compliance with Applicable Laws, and the Investor does not have a present arrangement to effect any distribution of the Shares to or through any person or entity; *provided, however*, that by making the representations herein, the Investor does not agree to hold any of the Shares for any minimum or other specific term, except as expressly required by this Agreement, and reserves the right to dispose of the Shares in accordance with or pursuant to a registration statement or an exemption under the Securities Act.

(c) Investor Status. At the time the Investor was offered the Shares, it was, and at the date hereof it is, an “accredited investor” as defined in Rule 501(a) under the Securities Act.

(d) Experience of the Investor. The Investor has such knowledge, sophistication and experience in business and financial matters so as to be capable of evaluating the merits and risks of the prospective investment in the Shares, and has so evaluated the merits and risks of such investment. The Investor is able to bear the economic risk of an investment in the Shares and, at the present time, is able to afford a complete loss of such investment.

(e) Access to Information. The Investor acknowledges that it has reviewed the Disclosure Materials and has been afforded: (i) the opportunity to ask such questions as it has deemed necessary of, and to receive answers from, representatives of the Company concerning the terms and conditions of the offering of the Common Stock and the merits and risks of investing in the Common Stock; (ii) access to information (other than material non-public information) about the Company and its financial condition, results of operations, business, properties, management and prospects sufficient to enable it to evaluate its investment; and (iii) the opportunity to obtain such additional information that the Company possesses or can acquire without unreasonable effort or expense that is necessary to make an informed investment decision with respect to the investment. Neither such inquiries nor any other investigation conducted by or on behalf of the Investor or its representatives or counsel shall modify, amend or affect the Investor’s right to rely on the truth, accuracy and completeness of the Disclosure Materials and the Company’s representations and warranties contained in the Transaction Documents.

(f) No Governmental Review. The Investor understands that no United States federal or state agency or any other government or governmental agency has passed on or made any recommendation or endorsement of the Common Stock or the fairness or suitability of the investment in the Common Stock nor have such authorities passed upon or endorsed the merits of the offering of the Common Stock.

(g) No Legal, Tax or Investment Advice. The Investor understands that nothing in this Agreement or any other materials presented by or on behalf of the Company to the Investor in connection with the Shares constitutes legal, tax or investment advice. The Investor has consulted such legal, tax and investment advisors as it, in its sole discretion, has deemed necessary or appropriate in connection with its purchase of the Shares.

ARTICLE IV

COVENANTS

4.1 Taking of Necessary Action. Each of the Company and the Investor shall use its reasonable efforts promptly to take or cause to be taken all action and promptly to do or cause to be done all things necessary, proper or advisable under Applicable Laws and regulations to consummate and make effective the Transactions. Without limiting the foregoing, the Company will use its reasonable efforts to obtain all waivers from existing stockholders that may be necessary for the consummation of the transactions contemplated by the Registration Rights Agreement, which such waivers shall be in form and substance reasonably satisfactory to the Investor (the “**Registration Rights Waivers**”).

4.2 Transfer Restrictions.

(a) Legal Opinion. In connection with any permitted transfer of Shares other than pursuant to an effective registration statement or to the Company, or pursuant to Rule 144(k), the Company may require the transferor to provide to the Company an opinion of counsel, including in house counsel with requisite securities law expertise, selected by the transferor and reasonably acceptable to the Company, the form and substance of which opinion shall be reasonably satisfactory to the Company, to the effect that such transfer does not require registration under the Securities Act. Notwithstanding the foregoing, the Company hereby consents to and agrees to register on the books of the Company and with its transfer agent, without any such legal opinion, except to the extent that the transfer agent requests such legal opinion, any transfer of Shares by the Investor to an Affiliate of the Investor, provided that the transferee certifies to the Company that it is an “accredited investor” as defined in Rule 501(a) under the Securities Act and provided that such Affiliate does not request any removal of any existing legends on any certificate evidencing the Shares and provided that such Affiliate agrees to be bound by this Agreement and the Registration Rights Agreement.

(b) Legend. The Investor agrees to the imprinting, so long as is required by this Section 4.2(b), of the following legend on any certificate evidencing the Shares:

THESE SECURITIES HAVE NOT BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE “SECURITIES ACT”), AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN COMPLIANCE WITH APPLICABLE STATE SECURITIES LAWS OR BLUE SKY LAWS.

Certificates evidencing the Shares shall not be required to contain such legend or any other legend (i) after a transfer pursuant to a registration statement that is effective under the Securities Act covering the resale of such Shares, (ii) following any sale of such Shares pursuant to Rule 144 or (iii) if such Shares are eligible for sale under Rule 144(k). At such time as a legend is no longer required for the Shares, the Company will as soon as reasonably practicable following the delivery by the Investor to the Company of a legended certificate representing such Common Stock and an opinion of counsel to the extent required by Section 4.2(b), deliver or cause to be delivered to the Investor a certificate representing such Shares that is free from all restrictive and other legends. The Company may not make any notation on its records that enlarge the restrictions on transfer set forth in this Section.

4.3 Integration. The Company shall not, and shall use its best efforts to ensure that no Affiliate thereof shall, sell, offer for sale or solicit offers to buy or otherwise negotiate in respect of any security (as defined in Section 2 of the Securities Act) that would be integrated with the offer or sale of the Shares in a manner that would require the registration under the Securities Act of the sale of the Shares to the Investor or that would be integrated with the offer or sale of the Shares for purposes of the rules and regulations of any Trading Market.

ARTICLE V CONDITIONS

5.1 Conditions Precedent to the Obligations of the Investor. The obligation of the Investor to acquire the Shares at the Closing is subject to the satisfaction or waiver by the Investor, at or before the Closing, of each of the following conditions:

(a) Representations and Warranties. (i) The representations and warranties of the Company (other than those set forth in Section 3.1(a) (No Interest in Any Person), the first three sentences of Section 3.1(b) (Organization and Qualification), Section 3.1(c) (Authorization; Enforcement), clause (i) of Section 3.1(d) (No Conflicts), Section 3.1(e) (Issuance of the Shares), Section 3.1(f) (Capitalization), Section 3.1(m) (Private Placement), Section 3.1(n) (Form S-3 Eligibility), the last sentence of Section 3.1(o) (Listing and Maintenance Requirements), Section 3.1(p) (Registration Rights) and Section 3.1(q) (Application of Takeover Protections) (collectively, the “*Company Specified Representations*”)) contained in this Agreement shall be true and correct as of the date of this Agreement (except to the extent expressly made as of an earlier date, in which case as of such earlier date), except where the failure of such representations and warranties to be so true and correct has not had and would not be reasonably likely to have, individually or in the aggregate with any other failures of such representations and warranties to be true and correct, a Material Adverse Effect and (ii) the Company Specified Representations (considered without regard to any reference to materiality qualifiers such as “material,” “in all material respects” and “Material Adverse Effect” set forth therein) shall be true and correct in all material respects as of the date of this Agreement and as of the Closing Date (except to the extent expressly made as of an earlier date, in which case as of such earlier date); *provided, however*, that in the case of (i) and (ii) above, any failure to be true and correct as of the date of this Agreement that has been cured as of the Closing Date without breach by the Company of any of its covenants in this Agreement shall be deemed to have been true and correct as of the date of this Agreement;

(b) Covenants. The Company shall have performed, satisfied and complied in all material respects with all covenants, agreements and conditions required by the Transaction Documents to be performed, satisfied or complied with by it at or prior to the Closing;

(c) Collaboration Agreement. (i) All of the Closing Conditions set forth in Section 13.3 of the Collaboration Agreement shall have been satisfied or waived and (ii) the Collaboration Agreement shall remain in full force and effect;

(d) Consents. The Company shall have obtained in a timely fashion any and all consents, permits, approvals, registrations and waivers necessary for the consummation of the Transactions (including the Registration Rights Waivers);

(e) Registration Rights Agreement. The Company shall have duly executed and delivered the Registration Right Agreement; and

(f) No Injunction. There shall not be in effect any statute, rule, order, decree or injunction of a court or agency of competent jurisdiction which enjoins or prohibits consummation of the Transactions.

5.2 Conditions Precedent to the Obligations of the Company. The obligation of the Company to sell the Shares at the Closing is subject to the satisfaction or waiver by the Company, at or before the Closing, of each of the following conditions:

(a) Representations and Warranties. The representations and warranties of the Investor (other than those set forth in Section 3.2(a) (Organization; Authority) (collectively, the “*Investor Specified Representations*”) contained in this Agreement shall be true and correct as of the date of this Agreement (except to the extent expressly made as of an earlier date, in which case as of such earlier date), except where the failure of such representations and warranties to be so true and correct has not had and would not be reasonably likely to have, individually or in the aggregate with any other failures of such representations and warranties to be true and correct, a material adverse effect on the ability of the Investor to perform its material obligations under the Transaction Documents and (ii) the Investor Specified Representations (considered without regard to any reference to materiality qualifiers such as “material” and “in all material respects” set forth therein) shall be true and correct in all material respects as of the date of this Agreement and as of the Closing Date (except to the extent expressly made as of an earlier date, in which case as of such earlier date); *provided, however*, that in the case of (i) and (ii) above, any failure to be true and correct as of the date of this Agreement that has been cured as of the Closing Date without breach by the Investor of any of its covenants in this Agreement shall be deemed to have been true and correct as of the date of this Agreement;

(b) Covenants. The Investor shall have performed, satisfied and complied in all material respects with all covenants, agreements and conditions required by the Transaction Documents to be performed, satisfied or complied with by the Investor at or prior to the Closing;

(c) Consents. The Company shall have obtained in a timely fashion any and all consents, permits, approvals, registrations and waivers necessary for the consummation of the Transactions (including the Registration Rights Waivers);

(d) Collaboration Agreement. (i) All of the Closing Conditions set forth in Section 13.3 of the Collaboration Agreement shall have been satisfied or waived and (ii) the Collaboration Agreement shall remain in full force and effect;

(e) Registration Rights Agreement. The Investor shall have duly executed and delivered the Registration Right Agreement; and

(f) No Injunction. There shall not be in effect any statute, rule, order, decree or injunction of a court or agency of competent jurisdiction which enjoins or prohibits consummation of the Transactions.

ARTICLE VI

TERMINATION

6.1 Termination. This Agreement may be terminated prior to the Closing:

(a) by mutual written consent of the Investor and the Company; or

(b) by either the Company or the Investor upon the valid termination of the Collaboration Agreement in its entirety in accordance with its terms or by operation of law; or

(c) by the Investor or the Company if the Closing shall not have occurred on or prior to January 31, 2008 (the “*Reference Date*”) unless the failure of such occurrence shall be due to the failure of such party to perform or observe any agreement set forth herein required to be performed or observed by it on or before the Closing; *provided, however*, that if the Closing shall not have occurred on or prior to the Reference Date as a result of the failure to satisfy the Closing Condition set forth in Section 13.3(a) of the Collaboration Agreement, but all other conditions set forth in Article V hereof shall have been fulfilled or shall be capable of being fulfilled, then the Reference Date shall be extended to April 30, 2008; or

(d) by either the Company or the Investor if a Governmental Entity shall have issued a nonappealable final order, decree or ruling or taken any other action having the effect or permanently restraining, enjoining or otherwise prohibiting the transactions contemplated by this Agreement.

6.2 Effect of Termination. In the event of the termination of the Agreement as provided in Section 6.1 above, all obligations and agreements of the parties set forth in this Agreement shall forthwith become void and there shall be no liability or obligation on the part of the parties hereto except as otherwise provided in this Agreement. Notwithstanding the foregoing, the termination of this Agreement shall not affect (a) any rights that have accrued to the benefit of either party prior to the date of such termination, including damages arising from any breach of this Agreement and (b) either party’s liability for any breach of this Agreement such party may have committed prior to the date of such termination. The provisions of this Section 6.2 and Article VII (Miscellaneous) shall survive any termination hereof pursuant to Section 6.1 hereof.

ARTICLE VII MISCELLANEOUS

7.1 No Survival. The representations and warranties made in this Agreement shall terminate as of the Closing. All covenants and agreements contained herein shall survive until, by their respective terms, they are fully performed and no longer operative.

7.2 Fees and Expenses. Each party shall pay the fees and expenses of its advisers, counsel, accountants and other experts, if any, and all other expenses incurred by such party incident to the negotiation, preparation, execution, delivery and performance of this Agreement.

7.3 Entire Agreement. The Transaction Documents, together with the exhibits and schedules thereto, contain the entire understanding of the parties with respect to the subject matter hereof and supersede all prior agreements and understandings, oral or written, with respect to such matters, which the parties acknowledge have been merged into such documents, exhibits and schedules. At or after the Closing, and without further consideration, each party will execute and deliver to the other party such further documents as may be reasonably requested in order to give practical effect to the intention of the parties under the Transaction Documents.

7.4 Notices. Any and all notices or other communications or deliveries required or permitted to be provided hereunder shall be in writing and shall be deemed given and effective on the earliest of (a) the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number specified in this Section prior to 6:30 p.m. (New York City time) on a Trading Day, (b) the next Trading Day after the date of transmission, if such notice or communication is delivered via facsimile at

the facsimile number specified in this Section on a day that is not a Trading Day or later than 6:30 p.m. (New York City time) on any Trading Day, (c) the Trading Day following the date of deposit with a nationally recognized overnight courier service, or (d) upon actual receipt by the party to whom such notice is required to be given. The addresses and facsimile numbers for such notices and communications are those set forth on the signature pages hereof, or such other address or facsimile number as may be designated in writing hereafter, in the same manner, by any such Person.

7.5 Amendments; Waivers. No provision of this Agreement may be waived or amended except in a written instrument signed, in the case of an amendment, by the Company and the Investor or, in the case of a waiver, by the party against whom enforcement of any such waiver is sought. No waiver of any default with respect to any provision, condition or requirement of this Agreement shall be deemed to be a continuing waiver in the future or a waiver of any subsequent default or a waiver of any other provision, condition or requirement hereof, nor shall any delay or omission of either party to exercise any right hereunder in any manner impair the exercise of any such right.

7.6 Construction. The headings herein are for convenience only, do not constitute a part of this Agreement and shall not be deemed to limit or affect any of the provisions hereof. The language used in this Agreement will be deemed to be the language chosen by the parties to express their mutual intent, and no rules of strict construction will be applied against any party.

7.7 Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the parties and their successors and permitted assigns. The Company may not assign this Agreement or any rights or obligations hereunder without the prior written consent of the Investor. The Investor may assign its rights under this Agreement to any Affiliate of the Investor to whom the Investor assigns or transfers any Shares, provided such Affiliate-transferee agrees in writing to be bound, with respect to the transferred Shares, by the provisions hereof that apply to the "Investor."

7.8 No Third-Party Beneficiaries. This Agreement is intended for the benefit of the parties hereto and their respective successors and permitted assigns and is not for the benefit of, nor may any provision hereof be enforced by, any other Person.

7.9 Governing Law. This Agreement shall be governed in all respects by the internal laws of the State of Delaware as applied to agreements entered into among Delaware residents to be performed entirely within Delaware, without regard to principles of conflicts of law.

7.10 Execution. This Agreement may be executed in two or more counterparts, all of which when taken together shall be considered one and the same agreement and shall become effective when counterparts have been signed by each party and delivered to the other party, it being understood that both parties need not sign the same counterpart. In the event that any signature is delivered by facsimile transmission, such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) with the same force and effect as if such facsimile signature page were an original thereof.

7.11 Severability. If any provision of this Agreement is held to be invalid or unenforceable in any respect, the validity and enforceability of the remaining terms and provisions of this Agreement shall not in any way be affected or impaired thereby and the parties will attempt to agree upon a valid and enforceable provision that is a reasonable substitute therefor, and upon so agreeing, shall incorporate such substitute provision in this Agreement.

7.12 Rescission and Withdrawal Right. Notwithstanding anything to the contrary contained in (and without limiting any similar provisions of) the Transaction Documents, whenever the Investor

exercises a right, election, demand or option owed to the Investor by the Company under a Transaction Document and the Company does not timely perform its related obligations within the periods therein provided, then, prior to the performance by the Company of the Company's related obligation, the Investor may rescind or withdraw, in its sole discretion from time to time upon written notice to such seller, any relevant notice, demand or election in whole or in part without prejudice to its future actions and rights.

7.13 Replacement of Common Stock. If any certificate or instrument evidencing the Shares is mutilated, lost, stolen or destroyed, the Company shall issue or cause to be issued in exchange and substitution for and upon cancellation thereof, or in lieu of and substitution therefor, a new certificate or instrument, but only upon receipt of evidence reasonably satisfactory to the Company and its transfer agent of such loss, theft or destruction and the execution by the holder thereof of a customary lost certificate affidavit of that fact and an agreement to indemnify and hold harmless the Company for any losses in connection therewith. The applicants (and not the Company) for a new certificate or instrument under such circumstances shall also pay any reasonable third-party costs associated with the issuance of such replacement Common Stock, including the payment of any bond or other fee required for such replacement certificate.

7.14 Remedies. In addition to being entitled to exercise all rights provided herein or granted by law, including recovery of damages, the Investor and the Company will be entitled to seek specific performance under the Transaction Documents. The parties agree that monetary damages may not be adequate compensation for any loss incurred by reason of any breach of obligations described in the foregoing sentence and hereby agrees to waive in any action for specific performance of any such obligation (other than in connection with any action for temporary restraining order) the defense that a remedy at law would be adequate.

7.15 Adjustments in Share Numbers and Prices. In the event of any stock split, subdivision, dividend or distribution payable in share of Common Stock (or other securities or rights convertible into, or entitling the holder thereof to receive directly or indirectly share of Common Stock), combination or other similar recapitalization or event occurring after the date hereof, each reference in any Transaction Document to a number of shares or a price per share shall be amended to appropriately account for such event.

[SIGNATURE PAGE TO FOLLOW]

IN WITNESS WHEREOF, the parties hereto have caused this Stock Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

GTx, Inc.

By: /s/ MITCHELL S. STEINER, M.D.

Name: Mitchell S. Steiner, M.D.

Title: Chief Executive Officer

Address for Notice:

GTx, Inc.
3 North Dunlap St.
Memphis, Tennessee 38163
Attention: Chief Executive Officer or President
Facsimile No.: (901) 523-9772

with a copy to:

GTx, Inc.
3 North Dunlap St.
Memphis, Tennessee 38163
Attention: Vice President, General Counsel
Facsimile No.: (901) 844-8075

MERCK & Co. Inc.

By: /s/ PETER N. KELLOGG

Name: Peter N. Kellogg

Title: Executive Vice President and Chief Financial Officer

Address for Notice:

Merck & Co., Inc.
One Merck Drive
P.O. Box 100, WS3A-65
Whitehouse Station, NJ 08889-0100
Attention: Office of Secretary
Facsimile No.: (908)735-1246

with a copy to:

Merck & Co., Inc.
One Merck Drive
P.O. Box 100, WS2A-30
Whitehouse Station, NJ 08889-0100
Attention: Vice President Business Development
Facsimile: (908)735-1214

EXHIBIT A
REGISTRATION RIGHTS AGREEMENT

REGISTRATION RIGHTS AGREEMENT

This REGISTRATION RIGHTS AGREEMENT (this "**Agreement**") is made and entered into as of [_____], 20[07], by and among **GTx, Inc.**, a Delaware corporation (the "**Company**"), and **MERCK & Co., Inc.**, a New Jersey corporation (the "**Investor**").

WHEREAS:

A. This Agreement is made in connection with the Closing of the issuance and sale of the Shares pursuant to the Stock Purchase Agreement, dated as of November 5, 2007, by and among the Company and the Investor (the "**Purchase Agreement**");

B. The Company has agreed to provide the registration and other rights set forth in this Agreement for the benefit of the Investor pursuant to the Purchase Agreement; and

C. It is a condition to the obligations of the Investor and the Company under the Purchase Agreement that this Agreement be executed and delivered.

NOW THEREFORE, in consideration of the mutual covenants and agreements set forth herein and for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by each party hereto, the parties hereby agree as **follows**:

ARTICLE I

DEFINITIONS

Section 1.01 Definitions.

Capitalized terms used herein without definition shall have the meanings given to them in the Purchase Agreement. The terms set forth below are used herein as so defined:

"**Advice**" has the meaning specified therefor in Section 2.04 of this Agreement.

"**Corporate Transaction**" means the occurrence (in a single transaction or in a series of related transactions) of any of the following: (a) the sale or other disposition of all or substantially all of the assets of the Company or (b) the Company consolidates with, or merges with or into, any Person, or any Person consolidates with, or merges with or into the Company, in any such event pursuant to a transaction in which any of the outstanding voting stock of the Company or such other Person is converted into or exchanged for cash, securities or other property, other than any such transaction where the voting stock of the Company outstanding immediately prior to such transaction is converted into or exchanged for voting stock of the surviving or transferee Person constituting a majority of the outstanding shares of such voting stock of such surviving or transferee Person (immediately after giving effect to such issuance).

"**Effectiveness Period**" has the meaning specified therefor in Section 2.01(a) of this Agreement.

"**Holder**" means the record holder of any Registrable Securities.

"**Inspector**" has the meaning specified therefor in Section 2.03(i) of this Agreement.

"**Investor**" has the meaning specified therefor in the introductory paragraph of this Agreement.

"**Losses**" has the meaning specified therefor in Section 2.06(a) of this Agreement.

“Managing Underwriter” means, with respect to any Underwritten Offering, the book-running lead manager of such Underwritten Offering.

“Prospectus” means the prospectus included in the Shelf Registration Statement (including, without limitation, a prospectus that includes any information previously omitted from a prospectus filed as part of the Shelf Registration Statement in reliance upon Rule 430A promulgated under the Securities Act), as amended or supplemented by any prospectus supplement, with respect to the terms of the offering of any portion of the Registrable Securities covered by the Shelf Registration Statement, and all other amendments and supplements to the Prospectus, including post-effective amendments, and all material incorporated by reference or deemed to be incorporated by reference in such Prospectus.

“Purchase Agreement” has the meaning specified therefor in the Recitals of this Agreement.

“Registrable Securities” means the Shares; *provided, however*, that notwithstanding anything to the contrary herein, no Shares shall be deemed Registrable Securities for purposes of this Agreement to the extent that such Shares (a) have been sold to the public pursuant to a registration statement that has been declared effective by the Commission or pursuant to Rule 144, (b) have been sold, transferred or otherwise disposed of by a Holder in a transaction in which its rights under this Agreement were not assigned in accordance with the provisions of Section 2.08 of this Agreement or (c) are held by a Holder during any such period that all Registrable Securities held by such Holder may be sold pursuant to Rule 144 during any ninety (90) day period.

“Registration Expenses” has the meaning specified therefor in Section 2.05(a) of this Agreement.

“Rule 144” means Rule 144 promulgated by the Commission pursuant to the Securities Act, as may be amended from time to time.

“Rule 145” means Rule 145 promulgated by the Commission pursuant to the Securities Act, as may be amended from time to time.

“Selling Expenses” has the meaning specified therefor in Section 2.05(a) of this Agreement.

“Selling Holder” means a Holder who is selling Registrable Securities pursuant to the Shelf Registration Statement.

“Shares” means the Common Stock purchased by the Investor pursuant to the Purchase Agreement.

“Shelf Registration Statement” has the meaning specified therefor in Section 2.01(a) of this Agreement.

“Suspension Certificate” has the meaning specified therefor in Section 2.01(b) of this Agreement.

“Underwritten Offering” means an offering (including an offering pursuant to the Shelf Registration Statement) in which Common Stock is sold to an underwriter on a firm commitment basis for reoffering to the public or an offering that is a “bought deal” with one or more investment banks.

ARTICLE II REGISTRATION RIGHTS

Section 2.01 Shelf Registration

(a) General Procedures. As soon as practicable following the Closing Date, but in any event within 90 days of the Closing Date, the Company shall prepare and file a registration statement under the Securities Act for an offering to be made on a delayed or continuous basis pursuant to Rule 415 of the Securities Act (or any similar provision then in force under the Securities Act) registering the resale from time to time by Holders thereof of all of the Registrable Securities (the “**Shelf Registration Statement**”). The Company shall use its commercially reasonable efforts to cause the Shelf Registration Statement to become effective as soon as practicable. The Shelf Registration Statement filed pursuant to this Section 2.01(a) shall be on Form S-3 (except if the Company is then ineligible to register for resale the Registrable Securities on Form S-3, in which case such registration shall be on Form S-1). The Company will cause the Shelf Registration Statement filed pursuant to this Section 2.01(a) to be continuously effective under the Securities Act until there are no longer any Registrable Securities outstanding, but in any event for no longer than the period ending on the later of (i) two years following the Closing and (ii) the end of the first 90 day period following the Closing during which all Registrable Securities then outstanding may be sold pursuant to Rule 144 (such period, the “**Effectiveness Period**”). The Shelf Registration Statement when declared effective (including the documents incorporated therein by reference) will comply as to form with all applicable requirements of the Securities Act and the Exchange Act and will not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading.

(b) Suspension of Trading. At any time after the Registrable Securities are covered by the Shelf Registration Statement, the Company may deliver to the Selling Holders a certificate (the “**Suspension Certificate**”) signed by an officer of the Company stating that the effectiveness of and sales of Registrable Securities under the Shelf Registration Statement would (i) materially interfere with any transaction that would require the Company to prepare financial statements under the Securities Act that the Company would otherwise not be required to prepare in order to comply with its obligations under the Exchange Act or (ii) require public disclosure of a material transaction or event prior to the time such disclosure might otherwise be required. Upon receipt of a Suspension Certificate by the Selling Holders, such Selling Holders shall refrain from selling or otherwise transferring or disposing of any Registrable Securities then held by such Selling Holders for a specified period of time that is customary under the circumstances. Notwithstanding the foregoing sentence, in no event shall any Selling Holder be required to refrain from selling or otherwise transferring or disposing of any Registrable Securities under this Section 2.01(b) for a period exceeding an aggregate of 90 days (exclusive of any days covered by any lock-up agreement executed by such Selling Holder in connection with any Underwritten Offering by the Company or any Selling Holders) in any 365-day period. The Company may impose stop transfer instructions to enforce any required agreement of the Holders under this Section 2.01(b).

Section 2.02 Underwritten Offering.

(a) Shelf Registration. If a Selling Holder elects to dispose of Registrable Securities under the Shelf Registration Statement pursuant to an Underwritten Offering and reasonably anticipates gross proceeds of greater than \$20.0 million from such Underwritten Offering, the Company shall, at the request of such Selling Holder, enter into an underwriting agreement in customary form with the Managing Underwriter, which shall include, among other provisions, indemnities to the effect and to the extent provided in Section 2.06, and shall take all such other reasonable actions as are requested by the Managing Underwriter to expedite or facilitate the disposition of the Registrable Securities. In furtherance of the foregoing, if a supplement to the Prospectus will be used in connection with the marketing of an Underwritten Offering from the Shelf Registration Statement and the Managing Underwriter shall notify the Company in writing that, in the sole judgment of such Managing Underwriter, inclusion of detailed information to be used in such supplement is of material importance to

the success of the Underwritten Offering of such Registrable Securities, the Company shall use its commercially reasonable efforts to include such information in such supplement.

(b) General Procedures. In connection with any Underwritten Offering pursuant to this Agreement, the Company shall, at its sole discretion, be entitled to select the Managing Underwriter and other underwriters. In connection with an Underwritten Offering pursuant to this Agreement, each Selling Holder and the Company shall be obligated to enter into an underwriting agreement that contains such representations, covenants, indemnities and other rights and obligations as are customary in underwriting agreements for firm commitment underwritten public offerings of securities. No Selling Holder may participate in such Underwritten Offering unless such Selling Holder agrees to sell its Registrable Securities on the basis provided in such underwriting agreement and completes and executes all questionnaires, powers of attorney, indemnities and other documents reasonably required under the terms of such underwriting agreement. No Selling Holder shall be required to make any representations or warranties to or agreements with the Company or the underwriters other than representations, warranties or agreements regarding such Selling Holder and its ownership of the securities being registered on its behalf and its intended method of distribution and any other representations required by law. If any Selling Holder disapproves of the terms of an underwriting, such Selling Holder may elect to withdraw therefrom by notice to the Company and the Managing Underwriter; *provided that* such withdrawal must be made prior to the time of pricing of such Underwritten Offering to be effective; and *provided further*, that such withdrawing Selling Holder shall be obligated to pay its pro rata share (based on its pro rata share of the aggregate Registrable Securities requested to be included in such Underwritten Offering by all Selling Holders) of the Registration Expenses incurred in connection with such underwriting as of the date of such withdrawal.

Section 2.03 Sale Procedures. In connection with its obligations contained in Section 2.01 and Section 2.02, the Company will:

(a) Prepare and file with the Commission such amendments and supplements to the Shelf Registration Statement and the Prospectus used in connection therewith as may be necessary to keep the Shelf Registration Statement effective and as may be necessary to comply with the provisions of the Securities Act with respect to the disposition of all securities covered by the Shelf Registration Statement.

(b) Permit a single firm of legal counsel, designated by the Selling Holders who hold a majority-in-interest of the Registrable Securities being sold pursuant to the Shelf Registration Statement ("**Holder's Counsel**"), to review the Shelf Registration Statement and all amendments and supplements thereto (except for Annual Reports on Form 10-K, and Quarterly Reports on Form 10-Q and Current Reports on Form 8-K and any similar or successor reports) within a reasonable amount of time (not to exceed three (3) business days) prior to their filing with the Commission, and will not file any document in a form to which such Holders' Counsel reasonably objects, unless otherwise required by law in the opinion of the Company's General Counsel. The sections of the Shelf Registration Statement including information with respect to the Selling Holders, the Selling Holders' beneficial ownership of securities of the Company or the Selling Holders' intended method of disposition of Registrable Securities must conform to the information provided to the Company by each of the Selling Holders or Holders' Counsel.

(c) Furnish to each Selling Holder such number of copies of the Shelf Registration Statement and the Prospectus included therein and any supplements and amendments thereto as such Selling Holder may reasonably request in order to facilitate the public sale or other disposition of the Registrable Securities covered by such Shelf Registration Statement.

(d) If applicable, use its commercially reasonable efforts to register or qualify the Registrable Securities covered by the Shelf Registration Statement under the securities or blue sky laws of such jurisdictions as the Selling Holders or, in the case of an Underwritten Offering, the Managing Underwriter, shall reasonably request, *provided, however*, that the Company will not be required to qualify generally to transact business in any jurisdiction where it is not then required to so qualify or to take any action which would subject it to general service of process in any such jurisdiction where it is not then so subject.

(e) Promptly notify each Selling Holder, at any time when a Prospectus relating thereto is required to be delivered under the Securities Act, of (i) the filing of the Shelf Registration Statement or any Prospectus to be used in connection therewith, or any amendment or supplement thereto (except for Annual Reports on Form 10-K, and Quarterly Reports on Form 10-Q and Current Reports on Form 8-K and any similar or successor reports), and, with respect to such Shelf Registration Statement or any post-effective amendment thereto, when the same has become effective (except with respect to Annual Reports on Form 10-K), and (ii) the receipt of any written comments from the Commission with respect to any filing referred to in clause (i) and any written request by the Commission for amendments or supplements to the Shelf Registration Statement or any Prospectus or supplement thereto.

(f) Immediately notify each Selling Holder, at any time when a Prospectus relating thereto is required to be delivered under the Securities Act, of (i) the occurrence of any event or passage of time that makes the financial statements included in the Shelf Registration Statement ineligible for inclusion therein or any statement made in the Shelf Registration Statement or the Prospectus, or any document incorporated or deemed to be incorporated therein by reference, untrue in any material respect or that requires any revisions to the Shelf Registration Statement, Prospectus or other documents so that, in the case of the Registration Statement or the Prospectus, as the case may be, it will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein (in the case of any Prospectus, form of prospectus or supplement thereto, in light of the circumstances under which they were made) not misleading, (ii) the occurrence or existence of any pending development with respect to the Company that the Company believes may be material and that, in the determination of the Company, makes it not in the best interest of the Company to allow continued availability of the Shelf Registration Statement or the Prospectus, *provided* that any and all of such information shall remain confidential to each Selling Holder until such information otherwise becomes public, unless disclosure by a Selling Holder is required by law; *provided, further*, that notwithstanding each Selling Holder's agreement to keep such information confidential, the Selling Holders make no acknowledgement that any such information is material, non-public information, (iii) the issuance or threat of issuance by the Commission of any stop order suspending the effectiveness of the Shelf Registration Statement, or the initiation of any proceedings for that purpose, or (iv) the receipt by the Company of any notification with respect to the suspension of the qualification of any Registrable Securities for sale under the applicable securities or blue sky laws of any jurisdiction. Following the provision of such notice, the Company agrees to as promptly as practicable amend or supplement the Shelf Registration Statement or Prospectus or take other appropriate action so that neither the Shelf Registration Statement nor the Prospectus contains an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein (in the case of any Prospectus, form of prospectus or supplement thereto, in light of the circumstances under which they were made) not misleading, and to take such other action as is necessary to remove a stop order, suspension, threat thereof or proceedings related thereto.

(g) Upon request and subject to appropriate confidentiality obligations, furnish to Holders' Counsel copies of any and all transmittal letters or other correspondence with the Commission or any other governmental agency or self-regulatory body or other body having jurisdiction (including any domestic or foreign securities exchange) relating to such offering of Registrable Securities.

(h) In the case of an Underwritten Offering, furnish upon request, (i) an opinion of counsel for the Company, dated the date of the closing under the underwriting agreement, and (ii) a “comfort letter,” dated the date of the underwriting agreement and a letter of like kind dated the date of the closing under the underwriting agreement, in each case, signed by the independent public accountants who have certified the Company’s financial statements included or incorporated by reference into the Shelf Registration Statement, and each of the opinion of counsel for the Company and the “comfort letters” shall be in customary form and covering substantially the same matters with respect to such Shelf Registration Statement (and the Prospectus included therein) as are customarily covered in opinions of issuer’s counsel and in accountants’ letters delivered to the underwriters in Underwritten Offerings of securities, and such other matters as such underwriters may reasonably request.

(i) Make available to the appropriate representatives of the Managing Underwriter and Selling Holders (each, an “*Inspector*”) such information and Company personnel during normal business hours and on reasonable notice as is reasonable and customary to enable such parties to establish a due diligence defense under the Securities Act; *provided, however*, that the Company need not disclose any information to any such Inspector unless and until such Inspector has entered into a confidentiality agreement with the Company in form and substance satisfactory to the Company.

(j) Cause all such Registrable Securities registered pursuant to this Agreement to be listed on the Trading Market.

(k) Use its commercially reasonable efforts to cause the Registrable Securities to be registered with or approved by such other governmental agencies or authorities as may be necessary by virtue of the business and operations of the Company to enable the Selling Holders to consummate the disposition of such Registrable Securities.

(l) Provide a transfer agent and registrar for all Registrable Securities covered by the Shelf Registration Statement not later than the effective date of the Shelf Registration Statement.

Section 2.04 Discontinued Disposition. Each Selling Holder agrees by its acquisition of Registrable Securities that, upon receipt of a notice from the Company of the occurrence of any event of the kind described in Section 2.03(f), such Selling Holder will forthwith discontinue disposition of such Registrable Securities under the Shelf Registration Statement until it is advised in writing (the “*Advice*”) by the Company that the use of the applicable Prospectus (as it may have been supplemented or amended) may be resumed, and, if so directed by the Company, such Selling Holder will, or will request the Managing Underwriter, if any, to deliver to the Company (at the Company’s expense) all copies in their possession or control, other than permanent file copies then in such Selling Holder’s possession, of the Prospectus covering such Registrable Securities current at the time of receipt of such notice. The Company may provide appropriate stop orders to enforce the provisions of this Section 2.04.

Section 2.05 Expenses.

(a) **Certain Definitions.** “*Registration Expenses*” means all expenses incident to the Company’s performance under or compliance with this Agreement to effect the registration of Registrable Securities under the Shelf Registration Statement pursuant to Section 2.01, an Underwritten Offering pursuant to Section 2.02 and the disposition of such securities, including, without limitation, all registration, filing, securities exchange listing and NASDAQ Global Market fees, all registration, filing, qualification and other fees and expenses of complying with securities or blue sky laws, fees of the Financial Industry Regulatory Authority, Inc., transfer taxes and fees of transfer agents and registrars, all word processing, duplicating and printing expenses, the fees and disbursements of counsel and independent public accountants for the Company, including the expenses of any special audits or

“comfort letters” required by or incident to such performance and compliance. Except as otherwise provided in Section 2.06 hereof, the Company shall not be responsible for legal fees incurred by Holders in connection with the exercise of such Holders’ rights hereunder. In addition, the Company shall not be responsible for any “**Selling Expenses**,” which means all underwriting fees, discounts and selling commissions allocable to the sale of the Registrable Securities under the Shelf Registration Statement.

(b) Expenses. Except for any Registration Expenses payable by a withdrawing Selling Holder pursuant to Section 2.02(b), the Company will pay all reasonable Registration Expenses as determined in good faith, including, in the case of an Underwritten Offering, whether or not any sale is made pursuant to such Underwritten Offering. Each Selling Holder shall pay all Selling Expenses in connection with any sale of its Registrable Securities hereunder.

Section 2.06 Indemnification.

(a) By the Company. In the event of a registration of any Registrable Securities under the Securities Act pursuant to this Agreement, the Company will indemnify and hold harmless each Selling Holder, its directors and officers, and each underwriter, pursuant to the applicable underwriting agreement with such underwriter, of Registrable Securities thereunder and each Person, if any, who controls such Selling Holder or underwriter within the meaning of the Securities Act or the Exchange Act, against any losses, claims, damages, expenses or liabilities (including reasonable attorneys’ fees and expenses) (collectively, “**Losses**”), joint or several, to which such Selling Holder or underwriter or controlling Person may become subject under the Securities Act, the Exchange Act or otherwise, insofar as such Losses (or actions or proceedings, whether commenced or threatened, in respect thereof) arise out of or are based upon any untrue statement or alleged untrue statement of a material fact contained in the Shelf Registration Statement, any Prospectus or any form of prospectus, or in any amendment 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 (in the case of any Prospectus or form of prospectus or supplement thereto, in light of the circumstances under which they were made) not misleading, and will reimburse each such Selling Holder, its directors and officers, each such underwriter and each such controlling Person for any legal or other expenses reasonably incurred by them in connection with investigating or defending any such Loss or actions or proceedings; *provided, however*, that the Company will not be liable in any such case if and to the extent that (i) any such Loss arises out of or is based upon an untrue statement or alleged untrue statement or omission or alleged omission so made in conformity with information furnished by such Selling Holder, such underwriter or such controlling Person in writing specifically for use therein, (ii) in the case of an occurrence of an event of the type specified in Section 2.03(f) related to the use by a Selling Holder of an outdated or defective Prospectus after the Company has notified such Holder in writing that the Prospectus is outdated or defective and prior to the receipt by such Holder of the Advice contemplated in Section 2.04, but only if and to the extent that following the receipt of the Advice the misstatement or omission giving rise to such Loss would have been corrected or (iii) any such Loss arises out of the Selling Holder’s (or any other indemnified party’s) failure to send or give a copy of the Prospectus or supplement (as then amended or supplemented) to the Persons asserting an untrue statement or alleged untrue statement or omission or alleged omission at or prior to the written confirmation of the sale of Registrable Securities to such Person if such statement or omission was corrected in such Prospectus or supplement. Such indemnity shall remain in full force and effect regardless of any investigation made by or on behalf of such Selling Holder or any such director, officer or controlling Person, and shall survive the transfer of such securities by such Selling Holder.

(b) By Each Selling Holder. Each Selling Holder agrees severally and not jointly to indemnify and hold harmless the Company, its directors and officers, and each underwriter, pursuant to the applicable underwriting agreement with such underwriter, of Registrable Securities thereunder and

each Person, if any, who controls the Company or underwriter within the meaning of the Securities Act or of the Exchange Act to the same extent as the foregoing indemnity from the Company to the Selling Holders (i) if and to the extent that such untrue statement or alleged untrue statement or omission or alleged omission is based solely upon information regarding such Selling Holder furnished in writing by or on behalf of such Selling Holder expressly for inclusion in the Shelf Registration Statement or Prospectus relating to the Registrable Securities, or any amendment or supplement thereto or (ii) in the case of an occurrence of an event of the type specified in Section 2.03(f), to the extent related to the use by such Selling Holder of an outdated or defective Prospectus after the Company has notified such Selling Holder in writing that the Prospectus is outdated or defective and prior to the receipt by such Selling Holder of the Advice contemplated in Section 2.04; *provided, however*, that the liability of each Selling Holder shall not be greater in amount than the dollar amount of the proceeds (net of any Selling Expenses) received by such Selling Holder from the sale of the Registrable Securities giving rise to such indemnification (except in the case of fraud or willful misconduct by such Selling Holder).

(c) Notice. Promptly after receipt by an indemnified party hereunder of notice of the commencement of any action, such indemnified party shall, if a claim in respect thereof is to be made against the indemnifying party hereunder, notify the indemnifying party in writing thereof, but the omission so to notify the indemnifying party shall not relieve it from any liability which it may have to any indemnified party other than under this Section 2.06, except to the extent such failure is materially prejudicial. In any action brought against any indemnified party, it shall notify the indemnifying party of the commencement thereof. The indemnifying party shall be entitled to participate in and, to the extent it shall wish, to assume and undertake the defense thereof with counsel reasonably satisfactory to such indemnified party and, after notice from the indemnifying party to such indemnified party of its election so to assume and undertake the defense thereof, the indemnifying party shall not be liable to such indemnified party under this Section 2.06 for any legal expenses subsequently incurred by such indemnified party in connection with the defense thereof other than reasonable costs of investigation and of liaison with counsel so selected; *provided, however*, that, (i) if the indemnifying party has failed to assume the defense and employ counsel or (ii) if the defendants in any such action include both the indemnified party and the indemnifying party and counsel to the indemnified party shall have concluded that there may be reasonable defenses available to the indemnified party that are different from or additional to those available to the indemnifying party, or if the interests of the indemnified party reasonably may be deemed to conflict with the interests of the indemnifying party, then the indemnified party shall have the right to select a separate counsel and to assume such legal defense and otherwise to participate in the defense of such action, with the reasonable expenses and fees of such separate counsel and other reasonable expenses related to such participation to be reimbursed by the indemnifying party as incurred. Notwithstanding any other provision of this Agreement, no indemnified party shall settle any action brought against it with respect to which it is entitled to indemnification hereunder without the consent of the indemnifying party, unless the settlement thereof imposes no liability or obligation on, and includes a complete and unconditional release from all liability of, the indemnifying party.

(d) Contribution. If the indemnification provided for in this Section 2.06 is held by a court or government agency of competent jurisdiction to be unavailable to any indemnified party or is insufficient to hold them harmless in respect of any Losses, then each such indemnifying party, in lieu of indemnifying such indemnified party, shall contribute to the amount paid or payable by such indemnified party as a result of such Loss in such proportion as is appropriate to reflect the relative fault of the indemnifying party on the one hand and of such indemnified party on the other in connection with the statements or omissions which resulted in such Losses, as well as any other relevant equitable considerations; *provided, however*, that in no event shall such Selling Holder be required to contribute an aggregate amount in excess of the dollar amount of proceeds (net of Selling Expenses) received by such Selling Holder from the sale of Registrable Securities giving rise to such indemnification. The relative fault of the indemnifying party on the one hand and the indemnified party on the other shall be

determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact has been made by, or relates to, information supplied by such party, and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission. The parties hereto agree that it would not be just and equitable if contributions pursuant to this paragraph were to be determined by pro rata allocation or by any other method of allocation which does not take account of the equitable considerations referred to herein. The amount paid by an indemnified party as a result of the Losses referred to in the first sentence of this paragraph shall be deemed to include any legal and other expenses reasonably incurred by such indemnified party in connection with investigating or defending any Loss which is the subject of this paragraph. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any Person who is not guilty of such fraudulent misrepresentation.

(e) Other Indemnification. The provisions of this Section 2.06 shall be in addition to any other rights to indemnification or contribution which an indemnified party may have pursuant to law, equity, contract or otherwise.

Section 2.07 Rule 144 Reporting. With a view to making available the benefits of certain rules and regulations of the Commission that may permit the sale of the Registrable Securities to the public without registration, the Company agrees to use its commercially reasonable efforts to:

(a) Make and keep public information regarding the Company available, as those terms are understood and defined in Rule 144, at all times from and after the date hereof;

(b) File with the Commission in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act at all times from and after the date hereof; and

(c) So long as a Holder owns of record any Registrable Securities, furnish to such Holder forthwith upon request a copy of the most recent annual or quarterly report of the Company, and such other reports and documents so filed as such Holder may reasonably request in availing itself of any rule or regulation of the Commission allowing such Holder to sell any such securities without registration; *provided* that the Company's obligations pursuant to this Section 2.07(c) shall be deemed satisfied with respect to any document that is publicly available, free of charge, on the Commission's EDGAR website.

Section 2.08 Transfer or Assignment of Registration Rights. The rights to cause the Company to register Registrable Securities granted to the Investor by the Company under this Article II may be transferred or assigned by the Investor only to an Affiliate of the Investor. The Company shall be given written notice prior to any said transfer or assignment, stating the name and address of each such transferee and identifying the Registrable Securities with respect to which such registration rights are being transferred or assigned. Each such transferee shall assume in writing responsibility for its portion of the obligations of the Investor under this Agreement.

ARTICLE III

MISCELLANEOUS

Section 3.01 Effectiveness. This Agreement shall be effective automatically and without further action on the part of any party hereto on the Closing Date.

Section 3.02 Termination. This Agreement and the obligations of the parties hereunder shall

terminate on the earlier to occur of (i) the end of the Effectiveness Period or (ii) a Corporate Transaction; *provided, however*, that in the case of clause (ii), only as long as all Registrable Securities (or any securities for which such Registrable Securities are exchanged in such transaction) may be sold by the Holder or Holders thereof without restriction pursuant to Rule 144 or Rule 145 immediately following the closing of such Corporate Transaction. Notwithstanding the foregoing sentence, the termination of this Agreement shall not affect any liabilities or obligations of the parties hereto under Section 2.06 hereof, which such Section 2.06 shall remain in effect in accordance with its terms.

Section 3.03 Communications. All notices and other communications provided for or permitted hereunder shall be made in writing by facsimile, courier service or personal delivery:

- (a) if to the Investor, to the address set forth under the Investor's signature block in accordance with the provisions of this Section 3.03,
- (b) if to a transferee of the Investor, to such Holder at the address provided pursuant to Section 2.08 above, and
- (c) if to the Company, to the address set forth under the Company's signature block in accordance with the provisions of this Section 3.03.

All such notices and communications shall be deemed given and effective on the earliest of (i) the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number specified in this Section prior to 6:30 p.m. (New York City time) on a Trading Day, (ii) the next Trading Day after the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number specified in this Section 3.03 on a day that is not a Trading Day or later than 6:30 p.m. (New York City time) on any Trading Day, (iii) the Trading Day following the date of deposit with a nationally recognized overnight courier service, or (iv) upon actual receipt by the party to whom such notice is required to be given.

Section 3.04 Successor and Assigns. This Agreement shall inure to the benefit of and be binding upon the successors and assigns of each of the parties, including subsequent Holders of Registrable Securities to the extent permitted herein.

Section 3.05 Assignment of Rights. All or any portion of the rights and obligations of the Investor under this Agreement may be transferred or assigned by the Investor to its Affiliates in accordance with Section 2.08 hereof.

Section 3.06 Aggregation of Purchased Common Stock. All Purchased Common Stock held or acquired by Persons who are Affiliates of one another shall be aggregated together for the purpose of determining the availability of any rights under this Agreement.

Section 3.07 Recapitalization, Exchanges, etc. Affecting the Common Stock. The provisions of this Agreement shall apply to the full extent set forth herein with respect to any and all securities of the Company or any successor, assign or acquirer of the Company (whether by merger, consolidation, sale of assets or otherwise) which may be issued in respect of, in exchange for or in substitution of, the Registrable Securities, and shall be appropriately adjusted for combinations, recapitalizations and the like occurring after the date of this Agreement.

Section 3.08 Specific Performance. Damages in the event of breach of this Agreement by a party hereto may be difficult, if not impossible, to ascertain, and it is therefore agreed that each such Person, in addition to and without limiting any other remedy or right it may have, will have the right to an

injunction or other equitable relief in any court of competent jurisdiction, enjoining any such breach, and enforcing specifically the terms and provisions hereof, and each of the parties hereto hereby waives any and all defenses it may have on the ground of lack of jurisdiction or competence of the court to grant such an injunction or other equitable relief. The existence of this right will not preclude any such Person from pursuing any other rights and remedies at law or in equity which such Person may have.

Section 3.09 Execution. This Agreement may be executed in two or more counterparts, all of which when taken together shall be considered one and the same agreement and shall become effective when counterparts have been signed by each party and delivered to the other party, it being understood that both parties need not sign the same counterpart. In the event that any signature is delivered by facsimile transmission, such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) with the same force and effect as if such facsimile signature page were an original thereof.

Section 3.10 Construction. The headings herein are for convenience only, do not constitute a part of this Agreement and shall not be deemed to limit or affect any of the provisions hereof. The language used in this Agreement will be deemed to be the language chosen by the parties to express their mutual intent, and no rules of strict construction will be applied against any party.

Section 3.11 Governing Law. This Agreement shall be governed in all respects by the internal laws of the State of Delaware as applied to agreements entered into among Delaware residents to be performed entirely within Delaware, without regard to principles of conflicts of law.

Section 3.12 Severability. If any provision of this Agreement is held to be invalid or unenforceable in any respect, the validity and enforceability of the remaining terms and provisions of this Agreement shall not in any way be affected or impaired thereby and the parties will attempt to agree upon a valid and enforceable provision that is a reasonable substitute therefor, and upon so agreeing, shall incorporate such substitute provision in this Agreement.

Section 3.13 Entire Agreement. The Transaction Documents, together with the exhibits and schedules thereto, contain the entire understanding of the parties with respect to the subject matter hereof and supersede all prior agreements and understandings, oral or written, with respect to such matters, which the parties acknowledge have been merged into such documents, exhibits and schedules.

Section 3.14 Amendment; Waiver. With the written consent of (i) the Company and (ii) the Holders of a majority-in-interest of the then-outstanding Registrable Securities, the obligations of the Company and the rights of the Holders under this Agreement may be waived or amended (either generally or in a particular instance, either retroactively or prospectively and either for a specified period of time or indefinitely).

Section 3.15 No Third-Party Beneficiaries. This Agreement is intended for the benefit of the parties hereto and their respective successors and permitted assigns and is not for the benefit of, nor may any provision hereof be enforced by, any other Person.

[SIGNATURE PAGE TO FOLLOW]

IN WITNESS WHEREOF, the parties hereto have caused this Registration Rights Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

GTx, INC.

By: _____

Name: Mitchell S. Steiner, M.D.

Title: Chief Executive Officer

Address for Notice:

GTx, Inc.
3 North Dunlap St.
Memphis, Tennessee 38163
Attention: Chief Executive Officer or President
Facsimile No.: (901) 523-9772

with a copy to:

GTx, Inc.
3 North Dunlap St.
Memphis, Tennessee 38163
Attention: Vice President, General Counsel
Facsimile No.: (901) 844-8075

MERCK & Co. INC.

By: _____

Name:

Title:

Address for Notice:

Merck & Co., Inc.
One Merck Drive
P.O. Box 100, WS3A-65
Whitehouse Station, NJ 08889-0100
Attention: Office of Secretary
Facsimile No.: (908)735-1246

with a copy to:

Merck & Co., Inc.
One Merck Drive
P.O. Box 100, WS2A-30
Whitehouse Station, NJ 08889-0100
Attention: Vice President Business
Development
Facsimile: (908)735-1214

EXHIBIT B
OPINION OF COMPANY COUNSEL

The Company shall furnish to the Investor at the Closing an opinion of Company Counsel, addressed to the Investor and dated the Closing Date, with respect to the matters set forth below. All capitalized terms used but not defined below have the respective meanings assigned to them in the Agreement.

1. 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 requisite corporate power to own or lease, as the case may be, and to operate its properties and conduct its business is presently conducted.

2. The Company is duly qualified to do business as a foreign corporation and is in good standing under the laws of the State of Tennessee.

3. The Shares have been duly authorized and, when issued and paid for by the Investor pursuant to the Agreement, will be validly issued, fully paid and nonassessable.

4. The Company has the requisite corporate power to execute, deliver and perform its obligations under the Transaction Documents. The Transaction Documents have been duly authorized by all necessary corporate action on the part of the Company and have been duly executed and delivered by the Company.

5. All consents, approvals, authorizations, or orders of, and filings, registrations and qualifications with any U.S. Federal regulatory authority or governmental body required for the issuance of the Shares have been made or obtained, except for the filing of a Form D pursuant to Securities and Exchange Commission Regulation D.

6. The offer and sale of the Shares are exempt from the registration requirements of the Securities Act, subject to the timely filing of a Form D pursuant to Securities and Exchange Commission Regulation D.