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) March 12, 2010

GTx, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**000-50549**	**62-1715807**
(State or other jurisdiction of incorporation or organization)	(Commission File Number)	(I.R.S. Employer Identification No.)

175 Toyota Plaza
7th Floor
Memphis, Tennessee 38103
(901) 523-9700
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

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

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

o Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

o Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

ITEM 1.02 Termination of a Material Definitive Agreement

On March 12, 2010, GTx, Inc. ("GTx") and Merck & Co., Inc. ("Merck"), mutually agreed to terminate the Exclusive License and Collaboration Agreement, dated November 5, 2007, by and between GTx and Merck (the "Collaboration Agreement"). Pursuant to the mutual agreement of the parties, the Collaboration Agreement was terminated effective immediately. The Collaboration Agreement was terminated following the mutual agreement of Merck and GTx to dissolve their collaboration for the development and commercialization of selective estrogen receptor modulator ("SARM") compounds.

Pursuant to the terms of the Collaboration Agreement, GTx and Merck had agreed to jointly research, develop and commercialize SARM compounds and related SARM products for all potential indications of interest. Pursuant to the terms of the Collaboration Agreement, GTx received an upfront licensing fee of $40.0 million in January 2008, and Merck purchased approximately $30.0 million of GTx common stock in December 2007. Under the terms of the Collaboration Agreement, GTx was also eligible to receive up to $422.0 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 had been developed and had received required regulatory approvals, as well as potential additional milestone payments for the development and regulatory approval of other product candidates that may have been developed under the Collaboration Agreement. Merck also agreed to pay the Company tiered royalties on net sales of products that may been developed under the Collaboration Agreement. As a result of the termination of the Collaboration Agreement, GTx will not any receive any of the milestone payments or royalties provided for under the Collaboration Agreement. Pursuant to the Collaboration Agreement, Merck also agreed to pay GTx $15.0 million in guaranteed cost reimbursements for research and development activities in equal annual installments over a three year period beginning on the first anniversary of the effective date of the Collaboration Agreement. GTx received the first and second $5.0 million cost reimbursement payments in December 2008 and 2009, respectively. Although the Collaboration Agreement was terminated, Merck remains obligated to pay GTx the third and final cost reimbursement payment of $5.0 million for research and development activities in 2010.

The foregoing is only a brief description of the material terms of Collaboration Agreement, does not purport to be complete, and is qualified in its entirety by reference to the Collaboration Agreement, which was filed as Exhibit 10.43 to GTx's Annual Report on Form 10-K for the year ended December 31, 2007, filed with the Securities and Exchange Commission on March 11, 2008.

ITEM 2.02 Results of Operations and Financial Condition.

On March 15, 2010, GTx issued an earnings release for the fourth quarter and year ended December 31, 2009, a copy of which is furnished as Exhibit 99.1 to this Current Report.

This release is furnished by GTx pursuant to Item 2.02 of Form 8-K and is not to be considered "filed" under the Exchange Act, and shall not be incorporated by reference into any previous or future filing by the Registrant under the Securities Act or the Exchange Act.

ITEM 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit Number	Description
99.1	Press Release issued by GTx, Inc. dated March 15, 2010

SIGNATURE

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

GTx, INC.

Date: March 15, 2010

By: /s/ Mark E. Mosteller
Name: Mark E. Mosteller
Title: Vice President and Chief Financial Officer
(principal accounting and financial officer)

EXHIBIT INDEX

Exhibit Number	Description
99.1	Press Release issued by GTx, Inc. dated March 15, 2010

Contact:
McDavid Stilwell
GTx, Inc.
Director, Corporate Communications & Financial Analysis
901-523-9700

GTx PROVIDES CORPORATE UPDATE AND REPORTS 2009 FINANCIAL RESULTS

• Reacquires SARM program and plans Ostarine™ Phase III clinical trials for cancer cachexia
• Held End of Review meeting with FDA for toremifene 80 mg
• Announces last patient completed toremifene 20 mg Phase III high grade PIN clinical trial in February
• Initiates Phase II clinical trial for GTx-758 for first line treatment of advanced prostate cancer

MEMPHIS, Tenn. — March 15, 2010 — GTx, Inc. (Nasdaq: GTXI) today provided a company update and reported financial results for the fourth quarter and full year 2009.

“Following the Complete Response Letter last fall, GTx and our European partner, Ipsen, met with the FDA in December. We believe that there is a path forward for the approval of toremifene 80 mg,” said Mitchell S. Steiner, MD, CEO of GTx.

As for the reacquisition of Ostarine™ and the GTx selective androgen receptor modulator (SARM) program, Dr. Steiner continued: “It was a difficult decision to dissolve our SARM collaboration with Merck. GTx’s near term objective is to generate revenue so that we can transition to a self-sustaining company. Reacquiring Ostarine moves us toward this objective by allowing us to advance our lead SARM into Phase III clinical studies in cancer cachexia which is a large commercial opportunity for our company and a critical unmet medical need for cancer patients.”

• GTx reacquires full rights to Ostarine and rest of SARM program and plans to advance Ostarine into Phase III clinical trials

GTx has reacquired full rights to Ostarine and its entire SARM program following the mutual agreement by GTx and Merck to dissolve their SARM collaboration. GTx is planning to pursue Phase III clinical development of Ostarine for the treatment of cancer cachexia. GTx completed a successful Phase IIb Ostarine clinical trial for cancer cachexia in October 2008 and now plans

to have an End of Phase II meeting with the United States Food and Drug Administration (FDA) to discuss the Ostarine Phase III clinical development program.

Ostarine is an oral agent that has demonstrated the ability to increase lean body mass and improve muscle strength and performance in postmenopausal women, elderly men, and men and women with cancer cachexia. Ostarine is GTx's lead SARM which has been studied in seven Phase I, Phase II, and Phase IIb clinical trials in 582 subjects.

• GTx provides update on End of Review meeting with FDA

The company announced in November 2009 the receipt of a Complete Response Letter from the FDA for the toremifene 80 mg New Drug Application. In December, GTx and its European Partner, Ipsen Biopharm Limited, met with FDA to better understand the two issues cited in the Complete Response Letter. Based on this End of Review FDA meeting, GTx and Ipsen have concluded that there is a path forward to obtain approval for toremifene 80 mg to reduce fractures in men with prostate cancer on ADT. GTx will provide additional details following further discussions with the FDA.

• Toremifene 20 mg Phase III high grade PIN clinical trial results expected this summer

In late February, the last patient completed the Phase III clinical trial evaluating toremifene 20 mg for the prevention of prostate cancer in high risk men with high grade prostatic intraepithelial neoplasia (PIN). GTx has begun the operational steps to conclude the study and expects to announce results this summer. If successful, GTx would move forward with plans to submit a New Drug Application.

• Initiation of the Phase II clinical trial evaluating GTx-758

In late February, GTx initiated a Phase II clinical trial evaluating GTx-758, an oral luteinizing hormone (LH) inhibitor, for the first line treatment of advanced prostate cancer. The GTx-758 Phase II clinical trial is evaluating multiple doses of GTx-758 in 70 males. GTx expects to obtain the results from the clinical trial in the second half of 2010.

Financial highlights for the quarter and year ended December 31, 2009

The net loss for the quarter and year ended December 31, 2009 was $10.9 million and $46.3 million, respectively, compared to $13.9 million and $51.8 million for the same periods in the prior year. Revenue for the quarter and year ended December 31, 2009 was $3.7 million and

$14.7 million, respectively, compared to $3.0 million and $13.5 million for the same periods in 2008.

Revenue for the fourth quarter of 2009 included collaboration income of $2.8 million related to our collaborations with Merck and Ipsen, and $862,000 of net sales of FARESTON® (toremifene citrate) 60 mg, marketed for the treatment of metastatic breast cancer in postmenopausal women. Revenue for the year ended December 31, 2009 included collaboration income of $11.4 million from Merck and Ipsen and $3.3 million of net sales of FARESTON®.

Research and development expenses for the quarter and year ended December 31, 2009 were $8.2 million and $32.3 million, respectively, compared to $10.6 million and $44.3 million for the same periods in 2008. General and administrative expenses for the quarter and year ended December 31, 2009 were $6.3 million and $27.7 million, respectively, compared to $6.3 million and $23.1 million for the same periods in 2008.

At December 31, 2009, GTx had cash, cash equivalents and short-term investments of $49.0 million.

Conference call

There will be a conference call today at 9:00 a.m. Eastern Time. To listen to the conference call, please dial 800-901-5241 from the United States or Canada or 617-786-2963 from other international locations. The access code for the call is 21956626. A playback of the call will be available from approximately 11:00 a.m. Eastern Time today through March 29, 2010 and may be accessed by dialing 888-286-8010 from the United States or Canada or 617-801-6888 from other international locations and referencing reservation number 71992507. Additionally, you may access the live and subsequently archived webcast of the conference call from the Investor Relations section of the Company’s website at http://www.gtxinc.com.

About GTx

GTx, Inc., headquartered in Memphis, Tenn., is a biopharmaceutical company dedicated to the discovery, development, and commercialization of small molecules that selectively target hormone pathways to prevent and treat cancer, fractures and bone loss, muscle loss and other serious medical conditions.

Forward-Looking Information is Subject to Risk and Uncertainty

This press release contains forward-looking statements based upon GTx's current expectations. Forward-looking statements include, but are not limited to, statements relating to GTx's plans to continue to pursue the development of and marketing approval for, and the potential commercialization of, toremifene 80 mg, and the continued development and potential commercialization of GTx's other product candidates. Forward-looking statements involve risks and uncertainties. GTx's actual results and the timing of events could differ materially from those anticipated in such forward-looking statements as a result of these risks and uncertainties, which include, without limitation, the risks (i) that GTx and its collaboration partner will not be able to commercialize their product candidates if clinical trials do not demonstrate safety and efficacy in humans, including in any additional clinical trials that GTx may conduct in connection with the NDA for toremifene 80 mg to reduce fractures in men with prostate cancer on ADT; (ii) that GTx may not be able to obtain required regulatory approvals to commercialize its product candidates, including toremifene 80 mg to reduce fractures in men with prostate cancer on ADT or toremifene 20 mg for the prevention of prostate cancer in high risk men with high grade prostatic intraepithelial neoplasia, in a timely manner or at all; (iii) that clinical trials being conducted or planned to be conducted by GTx and its collaboration partner may not be initiated or completed on schedule, or at all, or may otherwise be suspended or terminated; (iv) related to GTx's dependence on its collaboration partner for product candidate development and commercialization efforts; (v) related to GTx's reliance on third parties to manufacture its product candidates and to conduct its clinical trials; and (vi) that GTx could utilize its available cash resources sooner than it currently expects and may be unable to raise capital when needed, which would force GTx to delay, reduce or eliminate its product candidate development programs or commercialization efforts. You should not place undue reliance on these forward-looking statements, which apply only as of the date of this press release. GTx's quarterly report on Form 10-Q filed with the SEC on November 9, 2009 contains under the heading, "Risk Factors," a more comprehensive description of these and other risks to which GTx is subject. GTx expressly disclaims any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in its expectations with regard thereto or any change in events, conditions or circumstances on which any such statements are based.

GTx, Inc.

Condensed Balance Sheets
(in thousands)
(unaudited)

	December 31, 2009	December 31, 2008
ASSETS		
Current assets:		
Cash and cash equivalents	$ 40,219	$ 95,510
Short-term investments	8,825	2,157
Accounts receivable, net	406	487
Inventory	116	92
Receivable from collaboration partners	189	777
Prepaid expenses and other current assets	920	1,001
Total current assets	50,675	100,024
Property and equipment, net	3,291	3,988
Intangible and other assets, net	3,755	4,097
Total assets	$ 57,721	$ 108,109
LIABILITIES AND STOCKHOLDERS' (DEFICIT) EQUITY		
Current liabilities:		
Accounts payable	$ 1,268	$ 2,821
Accrued expenses and other current liabilities	4,730	6,666
Deferred revenue – current portion	9,954	11,490
Total current liabilities	15,952	20,977
Deferred revenue, less current portion	49,898	54,732
Other long-term liabilities	621	382
Commitments and contingencies		
Stockholders' (deficit) equity:		
Common stock, $0.001 par value: 60,000,000 shares authorized; 36,420,901 shares issued and outstanding at December 31, 2009 and 36,392,443 shares issued and outstanding at December 31, 2008	36	36
Additional paid-in capital	359,388	353,900
Accumulated deficit	(368,174)	(321,918)
Total stockholders' (deficit) equity	(8,750)	32,018
Total liabilities and stockholders' (deficit) equity	$ 57,721	$ 108,109

GTx, Inc.

Condensed Statements of Operations
(in thousands, except share and per share data)
(unaudited)

	Three Months Ended December 31,		Year Ended December 31,	
	2009	2008	2009	2008
Revenues:				
Product sales, net	$ 862	$ 242	$ 3,289	$ 1,088
Collaboration revenue	2,815	2,756	11,441	12,440
Total revenues	3,677	2,998	14,730	13,528
Costs and expenses:				
Cost of product sales	167	167	1,290	649
Research and development expenses	8,163	10,646	32,344	44,259
General and administrative expenses	6,285	6,324	27,749	23,105
Total costs and expenses	14,615	17,137	61,383	68,013
Loss from operations	(10,938)	(14,139)	(46,653)	(54,485)
Interest income	19	271	159	2,705
Loss before income taxes	(10,919)	(13,868)	(46,494)	(51,780)
Income tax benefit	44	—	238	—
Net loss	$ (10,875)	$ (13,868)	$ (46,256)	$ (51,780)
Net loss per share:				
Basic and diluted	$ (0.30)	$ (0.38)	$ (1.27)	$ (1.43)
Weighted average shares used in computing net loss per share:				
Basic and diluted	36,420,901	36,374,895	36,415,379	36,301,558