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): May 4, 2010

GTx, Inc.

(Exact name of registrant as specified in its charter)

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

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

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

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

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

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 2.02 Results of Operations and Financial Condition.

On May 4, 2010, GTx, Inc. issued an earnings release for the first quarter ended March 31, 2010, 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.

(c) Exhibits

Exhibit Number	Description
99.1	Press Release issued by GTx, Inc. dated May 4, 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: May 4, 2010

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

Exhibit 99.1

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

GTX, INC. REPORTS FIRST QUARTER 2010 CORPORATE RESULTS

MEMPHIS — May 4, 2010 — GTx, Inc. (Nasdaq: GTXI) today reported financial results for the first quarter of 2010. The net income for the first quarter ended March 31, 2010 was $44.3 million compared with a net loss of $11.3 million for the same period in 2009. Net income for the current period included the recognition of approximately $54.9 million in collaboration revenue due to the termination of our license and collaboration agreement with Merck & Co., Inc. in March 2010.

“GTx made good progress in the first quarter across all clinical programs,” said Mitchell S. Steiner, CEO of GTx. “We secured financing for the second toremifene 80 mg Phase III clinical trial through the expansion of our partnership with Ipsen. The last patient completed the toremifene 20 mg Phase III high grade PIN clinical trial, and we are on track to receive data from the study this summer. Reacquiring full rights to our SARM program will allow GTx to move ostarine forward into late stage studies for cancer cachexia and to explore new partnership opportunities. Finally, we initiated a Phase II clinical trial for GTx-758, a novel oral LH inhibitor for first line treatment of advanced prostate cancer, and we expect results later this summer.”

Clinical Development and Product Candidate Pipeline Updates

- Toremifene 80 mg to reduce fractures in men with prostate cancer on androgen deprivation therapy (ADT): GTx has submitted to the United States Food and Drug Administration (FDA) a proposed protocol for the Phase III TREAT 2 (Toremifene for Reduction of fractures and other Estrogen deficiency side effects in men on Androgen deprivation Therapy) clinical trial. GTx expects to initiate the TREAT 2 clinical trial this year after receiving feedback from FDA.
- Toremifene 20 mg for the prevention of prostate cancer in men with high grade prostatic intraepithelial neoplasia (PIN): The last patient completed the toremifene 20 mg Phase III high grade PIN clinical trial in February. GTx expects to receive data from the study and to announce results of the trial in the summer of 2010.

- Ostarine™ and other selective androgen receptor modulators (SARMs): GTx is planning to request a meeting with FDA in May to discuss the late stage clinical development of ostarine for the treatment of cancer cachexia.
- GTx-758, an oral luteinizing hormone (LH) inhibitor for the first line treatment of advanced prostate cancer: GTx initiated a Phase II clinical trial evaluating GTx-758 in February and anticipates receiving results from the study in the third quarter.

First quarter 2010 financial highlights

The net income for the quarter ended March 31, 2010 was $44.3 million compared with a net loss of $11.3 million for the same period in 2009.

Revenue for the first quarter of 2010 was $56.6 million compared to $3.6 million for the same period in 2009. Revenues included net sales of FARESTON® (toremifene citrate) 60 mg, marketed for the treatment of metastatic breast cancer in postmenopausal women and collaboration revenue from our collaborations with Ipsen Biopharm Limited and Merck & Co., Inc. Net sales of FARESTON® were $799,000 and $759,000 for the three months ended March 31, 2010 and 2009, respectively. Collaboration revenue was $55.8 million and $2.9 million for the first quarter of 2010 and 2009, respectively. Collaboration revenue for the first quarter of 2010 included the recognition of approximately $54.9 million as a result of the termination of our license and collaboration agreement with Merck in March 2010. Additionally, collaboration revenue in the current quarter included approximately $922,000 from the amortization of deferred revenue from Ipsen. Collaboration revenue for the first quarter of 2009 consisted of approximately $1.5 million and approximately $1.4 million from the amortization of deferred revenue from Ipsen and Merck, respectively.

For the three months ended March 31, 2010 and 2009, research and development expenses were $7.7 million and $8.3 million, respectively. General and administrative expenses decreased during the three months ended March 31, 2010 to $4.5 million from $6.5 million for the three months ended March 31, 2009.

At March 31, 2010 GTx had cash, cash equivalents and short-term investments of $38.7 million.

Conference Call

There will be a conference call today at 9 a.m. Eastern Time to discuss GTx's first quarter financial results and to provide a company update. To listen to the conference call, please dial:

- 866-770-7129

from the United States and Canada or

- 617-213-8067 (International)

The access code for the call is 47619023.

A playback of the call will be available beginning today at 12:00 p.m. Eastern Time through May 18, and may be accessed by dialing:

- 888-286-8010 from the United States and Canada or
- 617-801-6888 (International)

  The reservation number for the replay is 43873249.

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 for the treatment and prevention of cancer, the treatment of side effects of anticancer therapy, cancer supportive care, 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 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 annual report on Form 10-K filed with the SEC on March 15, 2010 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, except share data)

	March 31, 2010 (unaudited)	December 31, 2009
ASSETS		
Current assets:		
Cash and cash equivalents	$ 29,581	$ 40,219
Short-term investments	9,109	8,825
Accounts receivable, net	519	406
Inventory	66	116
Prepaid expenses and other current assets	6,899	1,109
Total current assets	46,174	50,675
Property and equipment, net	3,021	3,291
Intangible and other assets, net	3,670	3,755
Total assets	$ 52,865	$ 57,721
LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)		
Current liabilities:		
Accounts payable	$ 826	$ 1,268
Accrued expenses	5,055	4,730
Deferred revenue — current portion	3,691	9,954
Total current liabilities	9,572	15,952
Deferred revenue, less current portion	5,383	49,898
Other long term liabilities	607	621
Commitments and contingencies		
Stockholders' equity (deficit):		
Common stock, $0.001 par value: 60,000,000 shares authorized; 36,420,901 shares issued and outstanding at March 31, 2010 and December 31, 2009	36	36
Additional paid-in capital	361,102	359,388
Accumulated deficit	(323,835)	(368,174)
Total stockholders' equity (deficit)	37,303	(8,750)
Total liabilities and stockholders' equity (deficit)	$ 52,865	$ 57,721

GTx, Inc.
CONDENSED STATEMENTS OF OPERATIONS
(in thousands, except share and per share data)
(unaudited)

	Three Months Ended March 31,	
	2010	**2009**
Revenues:		
Product sales, net	$ 799	$ 759
Collaboration revenue	55,778	2,872
Total revenues	56,577	3,631
Costs and expenses:		
Cost of product sales	151	348
Research and development expenses	7,650	8,312
General and administrative expenses	4,509	6,511
Total costs and expenses	12,310	15,171
Income (loss) from operations	44,267	(11,540)
Other income, net	72	45
Income (loss) before income taxes	44,339	(11,495)
Income tax benefit	—	194
Net income (loss)	$ 44,339	$ (11,301)
Net income (loss) per share:		
Basic and diluted	$ 1.22	$ (0.31)
Weighted average shares used in computing net income (loss) per share:		
Basic and diluted	36,420,901	36,404,608