

STEINER MITCHELL SHUSTER

Form SC 13G/A

January 19, 2006

OMB APPROVAL
OMB Number: 3235-0145
Expires: January 31, 2006
Estimated average burden
hours per response...11

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

SCHEDULE 13G/A

**Under the Securities Exchange Act of 1934
(Amendment No. 1)***

GTx, Inc.
(Name of Issuer)
Common Stock, \$ 0.001 par value
(Title of Class of Securities)
40052B108
(CUSIP Number)
December 31, 2005
(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- Rule 13d-1(b)
- Rule 13d-1(c)
- Rule 13d-1(d)

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be filed for the purpose of Section 18 of the Securities Exchange Act of 1934 (Act) or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number.

CUSIP No. 40052B108

Page 2 of 5

1 NAMES OF REPORTING PERSONS:

I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY):

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

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS):

(a)

(b)

3 SEC USE ONLY:

4 CITIZENSHIP OR PLACE OF ORGANIZATION:

United States of America

5 SOLE VOTING POWER:

NUMBER OF 26,500

6 SHARED VOTING POWER:

SHARES BENEFICIALLY OWNED BY 5,535,647

7 SOLE DISPOSITIVE POWER:

EACH REPORTING PERSON 26,500

8 SHARED DISPOSITIVE POWER:

5,535,647

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON:

5,562,147

10 CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS):

o

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9):

17.9%

12 TYPE OF REPORTING PERSON (SEE INSTRUCTIONS):

IN

CUSIP No. 40052B108 Page 3 of 5

Item 1(a). Name of Issuer: GTx, Inc.
 Item 1(b). Address of Issuer's 3 N. Dunlap Street
Principal Executive Van Vleet Building
Offices: Memphis, TN 38163
 Item 2(a). Name of Person Filing: Mitchell S. Steiner, M.D., F.A.C.S.
 Item 2(b). Address of Principal 3 N. Dunlap Street
Business Office or, if none, Residence: Memphis, TN 38163
 Item 2(c). Organization/Citizenship: United States of America
 Item 2(d). Title of Class Of Securities: Common Stock, \$0.001 par value
 Item 2(e). CUSIP Number: **40052B108**
 Item 3. Inapplicable.
 Item 4. Ownership.

Person	Total Shares of		Sole Voting Power	Shared Voting Power	Sole Power to Dispose	Shared Power to Dispose
	Common Stock Beneficially Owned	Percent of Class(1)				
Mitchell S. Steiner, M.D., F.A.C.S.	5,562,147	17.9%	26,500	5,535,647	26,500	5,535,647

(1) Based on **30,992,552** shares of Common Stock outstanding as of November 4, 2005.

CUSIP No. 40052B108

Page 4 of 5

- Item 5. Ownership of Five Percent or Less of a Class.
Inapplicable
- Item 6. Ownership of More than Five Percent on Behalf of Another Person.
Inapplicable
- Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company.
Inapplicable
- Item 8. Identification and Classification of Members of the Group.
Inapplicable
- Item 9. Notice of Dissolution of Group.
Inapplicable
- Item 10. Certification.

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

CUSIP No. 40052B108

Page 5 of 5

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

1/19/2006

Date

/s/ Mitchell S. Steiner, M.D., F.A.C.S.

(Signature)

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

Chief Executive Officer and Vice Chairman of the Board
of Directors of GTx, Inc.