

VIA EDGAR

July 10, 2006

Mr. Jim B. Rosenberg
Senior Assistant Chief Accountant
Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Mail Stop: 6010
Washington, D.C. 20549

**Re: GTx, Inc. (File No. 000-50549)
Form 10-K for the Fiscal Year Ended December 31, 2005**

Dear Mr. Rosenberg:

On behalf of GTx, Inc. ("*GTx*" or the "*Company*"), this letter is being transmitted in response to comments received from the staff (the "*Staff*") of the Securities and Exchange Commission (the "*Commission*"), by letter dated June 27, 2006 (the "*Comment Letter*"), with respect to the Annual Report on Form 10-K for the fiscal year ended December 31, 2005, filed by the Company with the Commission on March 2, 2006.

On July 6, 2006, Mark McFall, Director of Accounting and Corporate Controller, provided Amy Bruckner, Staff Accountant, with an oral update as to the status of the Company's efforts to respond to the Comment Letter and in connection therewith, requested an extension of the 10 business day deadline set forth in the Comment Letter for the Company's response to the Comment Letter. In that conversation, he stated that we would provide the Staff with written confirmation that the Company is unable to meet the 10 business day deadline set forth in the Comment Letter for the Company's response to the Comment Letter and to confirm, pursuant to Mr. McFall's conversation with Ms. Bruckner, that the Company will file its response to the Comment Letter no later than July 26, 2006.

Please do not hesitate to call me at 901-507-6914 if you have any questions regarding this matter.

Sincerely,

/s/ MARK E. MOSTELLER

Mark E. Mosteller
Vice President and Chief Financial Officer

cc: Henry Doggrell, Vice President, General Counsel
Mark McFall, Director of Accounting and Corporate Controller
Amy Bruckner, Staff Accountant, Securities and Exchange Commission
Lisa Vanjoske, Assistant Chief Accountant, Securities and Exchange Commission