



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

March 9, 2012

Via E-mail

Michael Hull
Chief Financial Officer
1460 Park Lane South, Suite 1
Jupiter, Florida 33458

**Re: GelTech Solutions, Inc.
Amendment No. 1 to Registration Statement on Form S-1
Filed February 29, 2012
File No. 333-178911**

Dear Mr. Hull:

We have reviewed your response letter and the above-referenced filing, and have the following comment.

Selling Shareholder, page 47

1. We note your revisions to the selling shareholder table in response to comment five of our letter dated January 31, 2012. However, the number of shares listed in footnote two suggests that Lincoln Park beneficially owns more than 825,007 shares prior to the offering. Further, we note your response stating that if the full amount of the warrant were exercised it would result in Lincoln Park owning over 4.99% of the outstanding shares, and that you have revised the disclosure to reflect the number of shares that Lincoln Park can exercise without exceeding the 4.99% blocker contained in the warrant. This suggests that Lincoln Park actually owns 4.99% of the outstanding shares as opposed to 3.46% as disclosed in the table. Please advise and revise accordingly.

As appropriate, please amend your registration statement in response to this comment. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

Michael Hull
GelTech Solutions, Inc.
March 9, 2012
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You may contact Erin Jaskot, Staff Attorney, at 202-551-3442, or myself, at 202-551-3765 with any questions.

Sincerely,

/s/ Pamela Long

Pamela Long
Assistant Director

cc: Brian Bernstein, Esq. (*via E-mail*)
Harris Kramer, LLP