



DIVISION OF
CORPORATION FINANCE

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

January 31, 2012

Via E-mail

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

**Re: GelTech Solutions, Inc.
Registration Statement on Form S-1
Filed January 6, 2012
File No. 333-178911**

Dear Mr. Hull:

We have limited our review of your registration statement to those issues we have addressed in our comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. Where you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

General

1. We note your disclosure on page 2 that if all of the 4,400,000 shares offered for resale by Lincoln Park were issued and outstanding, such shares would represent 16.2% of the total common stock outstanding. Further, we note that Lincoln Park owns an additional 1,100,498 shares, and warrants that are exercisable for 200,000 shares, which further increases the percentage of shares owned by Lincoln Park. Please provide us with your analysis as to whether Lincoln Park is an affiliate of the company as defined in Rule 405 of the Securities Act. Please note that the accommodation to register an equity line transaction as an indirect primary offering does not extend to resales by affiliates of the company. Please advise us accordingly.

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2. Please remove the second to last sentence the paragraph under the table of contents. This statement may suggest to investors that you are not responsible for omissions of material facts necessary to make your statements not misleading at the time of sale or contract of sale. Information that is conveyed after the time of sale or contract of sale is not taken into account for purposes of section 12(a)(2) or 17(a)(2) of the Securities Act. See Securities Act Rule 159.

Risk Factors, page 4

Our ability to continue as a going concern is in doubt absent obtaining adequate new debt or equity financing and achieving sufficient sales levels, page 4

3. Please revise this risk factor to include a discussion of the likelihood that you will receive or will need the full amount available to you under the Purchase Agreement. Please include a similar discussion in “Use of Proceeds” and “The Lincoln Park Transaction.” If you are not likely to receive or need the full amount, please explain why you chose the particular dollar amount of the equity line.

Selling Shareholder, page 47

4. Please revise the table to include the shares that you may issue to Lincoln Park under the Purchase Agreement in the shares beneficially owned by Lincoln Park prior to the offering.
5. We note that Lincoln Park owns 4.82% of the total outstanding shares prior to the offering. However, we note that this calculation excludes 200,000 shares issuable upon the exercise of warrants held by the selling shareholder. Please advise whether these warrants are exercisable within 60 days and therefore should be included in the calculation of Lincoln Park’s beneficial ownership. To the extent that such warrants should be included, please revise your disclosure and include Lincoln Park in the table of principal shareholders, as appropriate. See Item 403 of Regulation S-K.
6. Please advise us of the date that Lincoln Park acquired the warrants to purchase 200,000 shares, and the exercise price of such warrants, including whether they are exercisable at a fixed price.

Exhibits

General

7. We note that you are requesting confidential treatment for portions of Exhibit 10.22, but that you did not include this Exhibit with the current registration statement. Please file

this Exhibit with the next amendment to your registration statement. To the extent that we have comments on your request, please note that we will issue them in a separate letter. Please further note that all comments on your request must be resolved before we will entertain a request to accelerate the effective date of your registration statement.

Exhibit 5.1 – Legal Opinion

8. The legal opinion must opine on the laws of the state of organization of the company. Please have counsel revise the legal opinion to indicate that the opinion covers the laws of the State of Delaware.

Exhibit 10.18 – Lincoln Park Purchase Agreement dated January 4, 2012

9. In Section 12(i) of the Purchase Agreement, we note that the investor has the right to approve, prior to issuance, any press release, SEC filing or any other public disclosure made by or on behalf of the company with respect to the investor or the Purchase Agreement, or other related matters. Further, we note that the failure of the company to “fully comply” with this provision constitutes a material adverse effect on the ability of the company to perform its obligations under the Purchase Agreement, and that Section 10(e) of the Purchase Agreement defines an Event of Default to include the company’s breach of a representation in the Purchase Agreement that could have a Material Adverse Effect. According to Section 10, in the event of an Event of Default, the company is not permitted to sell and Lincoln Park is not permitted to purchase any shares of stock pursuant to the Purchase Agreement. It therefore appears that Section 12(i) could permit Lincoln Park to delay the acceptance of a put, and therefore that Lincoln Park may not be irrevocably bound to pay for and accept all shares under the Purchase Agreement. Please provide us with your analysis as to the impact of Section 12(i) of the Purchase Agreement, including whether you have completed the private transaction you are registering for resale prior to the filing of the registration statement. See Question 139.13 of the Compliance and Disclosure Interpretations for the Securities Act Sections.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Act of 1933 and all applicable Securities Act rules require. Since the company and its management are in possession of all facts relating to a company’s disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging that:

Michael Hull
Geltech Solutions, Inc.
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- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

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