

Mail Stop 4720

May 26, 2009

Ms. Kathleen Danenberg  
President and Chief Executive Officer  
Response Genetics, Inc.  
1640 Marengo St., 6th Floor  
Los Angeles, CA 90033

**Re: Response Genetics, Inc.  
Registration Statement on Form S-3  
Filed May 15, 2009  
File Number 333-159297**

Dear Ms. Danenberg:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comments are inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation.

Form S-3

1. In an appropriate place in your registration statement, please provide descriptions of the private placement transactions pursuant to which you sold securities to the selling shareholders listed in the filing.
2. It appears that some of the selling shareholders are underwriters. In order for selling shareholders not to be underwriters they must have: (1) purchased their shares in the ordinary course of business; and (2) must not have had any agreement or understanding to distribute the securities. If any selling shareholders are unable to make both these representations, please identify them as underwriters.

\* \* \*

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings reviewed by the staff to be certain that they have provided all information investors require for an informed decision. Since the company and its

Ms. Kathleen Danenberg  
Response Genetics, Inc.  
May 26, 2009  
Page 2

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 the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, acknowledging that:

- 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 this action as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in connection with our review of your filing or in response to our comments on your filing.

We will consider a written request for acceleration of the effective date of the registration statement as a 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. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

Please contact Rose Zukin at (202) 551-3239 or me at (202) 551-3710 with any questions.

Sincerely,

Jeffrey P. Riedler  
Assistant Director

cc: Steven A. Seidman, Esq.  
Willkie Farr & Gallagher LLP  
787 Seventh Avenue  
New York, NY 10019