

Signal Genetics LLC
667 Madison Avenue, 14th Floor
New York, New York 10065

June 16, 2014

VIA EDGAR

United States Securities and Exchange Commission
100 F Street, NE
Washington, D.C. 20549

Attention: Ms. Pamela Howell

**Re: Signal Genetics LLC – Request for Acceleration
Registration Statement on Form S-1
File No. 333-194668**

Ladies and Gentlemen:

Pursuant to Rule 461 promulgated under the Securities Act of 1933, as amended, Signal Genetics LLC (the “Registrant”) hereby requests acceleration of the effective date of its Registration Statement on Form S-1 (File No. 333-194668), as amended (the “Registration Statement”), so that it may become effective at 5:30 P.M. (Eastern Daylight Time) on **June 17, 2014**, or as soon thereafter as practicable. Under separate cover, you will receive a letter from the managing underwriter of the proposed offering joining in the Registrant’s request for acceleration of the effectiveness of the Registration Statement.

The Registrant hereby authorizes each of Daniel Goldberg, Esq. and Wendy Grasso, Esq. of Reed Smith LLP, attorneys for the Registrant, to orally modify or withdraw this request for acceleration.

The Registrant hereby acknowledges that:

- i. should the Securities and Exchange Commission (the “Commission”) or the staff, acting pursuant to delegated authority, declare the Registration Statement effective, it does not foreclose the Commission from taking any action with respect to the Registration Statement;
- ii. the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the Registration Statement effective, does not relieve the Registrant from its full responsibility for the adequacy and accuracy of the disclosure in the Registration Statement; and
- iii. the Registrant 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.

The Registrant requests that it be notified of such effectiveness by a telephone call to Mr. Goldberg at (212) 549-0380 or, in his absence, Ms. Grasso at (212) 549-0216.

SIGNAL GENETICS LLC

By: /s/ Samuel D. Riccitelli
Samuel D. Riccitelli
President and Chief Executive Officer
