As filed with the Securities and Exchange Commission on August 15, 2016

SIGNAL GENETICS, INC.

Form S-8

August 15, 2016

Registration No. 333-

UNITED STATES			
SECURITIES AND EXCHA	NGE COMMISSION		
Washington, D.C. 20549			
FORM S-8			
REGISTRATION STATEM	ENT		
UNDER			
THE SECURITIES ACT OF	1933		
Signal Genetics, Inc.			
(Exact name of registrant as sp	ecified in its charter)		
Delaware	47-1187261		
(State or other jurisdiction of	(I.R.S. Employer		
incorporation or organization)	Identification Number)		
Signal Genetics, Inc.			
5740 Fleet Street			
Carlsbad, California			

Edgar Filing: SIGNAL GENETICS, INC Form S-8				
(760) 537-4100				
(Address of Principal Executive Offices)				
SIGNAL CENETICS INC 2014 STOCK INCENTIVE DLAN				
SIGNAL GENETICS, INC. 2014 STOCK INCENTIVE PLAN				
(Full title of the plan)				
Samuel D. Riccitelli				
President and Chief Executive Officer				
Signal Genetics, Inc.				
5740 Fleet Street				
Carlsbad, California				
(760) 537-4100				
(Name, address and telephone number (including area code) of agent for service)				
Copy to:				
Daniel I. Goldberg				
Cooley LLP				
1114 Avenue of the Americas				
New York, New York 10036-7798				
Telephone: (212) 479-6722				
Facsimile: (212) 479-6275				

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See definitions of "large accelerated filer," "accelerated filer" and "smaller reporting

company" in Rule 12b-2 of the Exchange Act (check one):

Large accelerated filer Accelerated filer

Non-accelerated filer

Smaller reporting company

(Do not check if a smaller reporting company)

CALCULATION OF REGISTRATION FEE

		Proposed maximum	Proposed maximum	
Title of Securities to be registered	Amount to be registered(1)	offering	aggregate	Amount of registration fee
registered		price per share(2)	offering price(2)	
Common Stock, \$0.01 par value per share, issuable under the Signal Genetics, Inc. 2014 Stock Incentive Plan	1,280,019 shares	\$0.52	\$665,609.88	\$67.03

- (1) This Registration Statement covers (i) 854,601 shares of common stock, par value \$0.01 per share (the "Common Stock"), of Signal Genetics, Inc. (the "Company"), being registered hereunder and issuable as a result of the approval by the Company and its stockholders to amend the Signal Genetics, Inc. 2014 Stock Incentive Plan (the "Plan") by increasing the number of shares of Common Stock available thereunder and (ii) 425,418 shares of Common Stock of the Company, being registered hereunder and issuable pursuant to the "evergreen" provision of the Plan. Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement also covers an indeterminate number of additional shares that may be offered or sold under the Plan by reason of any substitutions or adjustments to shares to account for any change in capitalization, including any stock dividend, stock split, reverse stock split, split up, spin-off, recapitalization, or other distribution of stock or property of the Company, combination or exchange of shares or common stock, dividend in kind, or other like change in capital structure. In addition, pursuant to Rule 416(c) under the Securities Act, this Registration Statement also covers an indeterminate amount of interests to be offered or sold pursuant to the employee and non-employee benefit plans described herein.
- (2) Pursuant to Rule 457(h) of the Securities Act, the proposed maximum offering price per share and the proposed maximum aggregate offering price are estimated solely for the purpose of calculating the amount of the registration fee. The offering price per share and aggregate offering price are based upon the average of the high and low prices for the Common Stock of the Company as reported on The NASDAQ Capital Market on August 12, 2016 (\$0.52), in accordance with Rule 457(c) of the Securities Act.

EXPLANTORY NOTE

The Registration Statement is being filed for the purpose of increasing the number of securities of the same class as other securities for which a Registration Statement on Form S-8 of the Registrant relating to the same employee and non-employee benefit plan set forth herein is effective.

INCORPORATION BY REFERENCE OF CONTENTS OF

REGISTRATION STATEMENT ON FORM S-8

The Registrant's Form S-8 Registration Statement filed with the U.S. Securities and Exchange Commission on July 9, 2014 (File No. 333-197316) relating to the Registrant's 2014 Stock Incentive Plan is incorporated by reference herein.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Company certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Carlsbad, State of California, on August 15, 2016.

SIGNAL GENETICS, INC.

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

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS that each of the undersigned directors and officers of Signal Genetics, Inc. hereby appoints Samuel D. Riccitelli as his true and lawful attorney-in-fact and agent, for him and in his name, place and stead, with full power to act alone, to sign on his behalf and in the capacity set forth below, any and all amendments and post-effective amendments and supplements to this Registration Statement on Form S-8 and to file each such amendment and post-effective amendment and supplements to this Registration Statement, with all exhibits thereto, and any and all other documents in connection therewith, with the Securities and Exchange Commission, hereby granting unto said attorney-in-fact and agent full power and authority to do and perform any and all acts and things requisite and necessary or appropriate to be done in and about the premises as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

/s/ Samuel D. Riccitelli Samuel D. Riccitelli

President, Chief Executive Officer and Director

/s/ Tamara A. Seymour Tamara A. Seymour Chief Financial Officer and Chief Accounting Officer

Dated: August 15, 2016 Dated: August 15, 2016

Directors:

/s/ Bennett S. LeBow /s/ David A. Gonyer Bennett S. LeBow, Chairman David A. Gonyer Dated: August 15, 2016 Dated: August 15, 2016

/s/ Douglas A. Schuling
Douglas A. Schuling
Dated: August 15, 2016

/s/ Dr. Robin Smith
Dr. Robin L. Smith
Dated: August 15, 2016

INDEX TO EXHIBITS

Exhibit No.	Description of Exhibit
4.1	Certificate of Incorporation of the Company (incorporated herein by reference to Exhibit 3.5 to the Company's Registration Statement on Form S-1 filed March 19, 2014) (Registration No. 333-194668)
4.2	Bylaws of the Company (incorporated herein by reference to Exhibit 3.6 to the Company's Registration Statement on Form S-1 filed March 19, 2014) (Registration No. 333-194668)
4.3	Amendment to Bylaws of the Company (incorporated by reference to Exhibit 3.1 to the Company's Form 8-K filed June 23, 2016) (Registration No. 001-36483)
4.4	Specimen Common Stock Certificate (incorporated herein by reference to Exhibit 4.1 to the Company's Registration Statement on Form S-1 filed March 19, 2014) (Registration No. 333-194668)
4.5	Signal Genetics, Inc. 2014 Stock Incentive Plan (incorporated herein by reference to Exhibit 4.4 to the Company's Registration Statement on Form S-8 filed July 9, 2014) (Registration No. 333-197316)
4.6	First Amendment to the Signal Genetics, Inc. 2014 Stock Incentive Plan (incorporated herein by reference to Exhibit 10.1 to the Company's Form 8-K filed June 23, 2015) (Registration No. 001-36483)
4.7	Form of Stock Option Grant Agreement under the 2014 Stock Incentive Plan (incorporated herein by reference to Exhibit 4.5 to the Company's Registration Statement on Form S-8 filed July 9, 2014) (Registration No. 333-197316)
4.8	Form of Restricted Stock Unit Grant Agreement under the 2014 Stock Incentive Plan (incorporated herein by reference to Exhibit 4.6 to the Company's Registration Statement on Form S-8 filed July 9, 2014) (Registration No. 333-197316)
5.1	Opinion of Cooley LLP*
23.1	Consent of BDO USA, LLP, Independent Registered Public Accounting Firm*
23.2	Consent of Cooley LLP (See Exhibit 5.1 above)
24.1	Power of Attorney of certain Officers and Directors of the Company (included on signature page)*

^{*}Filed herewith.