

SIGNAL GENETICS, INC.  
Form SC 13G  
February 11, 2015

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, DC 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934

Signal Genetics, Inc.

(Name of Issuer)

Common Stock, par value \$0.01 per share

(Title of Class of Securities)

826640104

(CUSIP Number)

December 31, 2014

(Date of Event That Requires Filing of This Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

Rule 13d-1 (b)

Rule 13d-1 (c)

Rule 13d-1 (d)

\*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

CUSIP No. 826640104

SCHEDULE 13G

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1. NAMES OF REPORTING PERSONS

LeBow Alpha LLLP

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) ..  
 (see instructions) (b) ..

3. SEC USE ONLY

4. CITIZENSHIP OR PLACE OF ORGANIZATION

United States

NUMBER OF	5.	SOLE VOTING POWER
SHARES		2,232,629
BENEFICIALLY	6.	SHARED VOTING POWER
OWNED BY		
EACH	7.	SOLE DISPOSITIVE POWER
REPORTING		2,232,629
PERSON WITH	8.	SHARED DISPOSITIVE POWER

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  
 2,232,629

10. CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES ..

(SEE INSTRUCTIONS)

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)  
 59.0% (1)

12. TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)  
 PN

(1) Based on 3,782,629 shares of Common Stock of the Company outstanding as of November 14, 2014.

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1. NAMES OF REPORTING PERSONS  
LeBow Holdings LLC
  2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a)   
(see instructions) (b)
  3. SEC USE ONLY
  4. CITIZENSHIP OR PLACE OF ORGANIZATION  
United States
- |   |    |                                     |
|---|----|-------------------------------------|
| NUMBER OF<br>SHARES<br>BENEFICIALLY<br>OWNED BY<br>EACH<br>REPORTING<br>PERSON WITH | 5. | SOLE VOTING POWER<br>2,232,629      |
|   | 6. | SHARED VOTING POWER                 |
|   | 7. | SOLE DISPOSITIVE POWER<br>2,232,629 |
|   | 8. | SHARED DISPOSITIVE POWER            |
9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  
2,232,629
  10. CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN  
SHARES  
..  
(SEE INSTRUCTIONS)
  11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)  
59.0% (1)
  12. TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)  
OO

(1) Based on 3,782,629 shares of Common Stock of the Company outstanding as of November 14, 2014.

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1. NAMES OF REPORTING PERSONS  
Bennett S. LeBow
  2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) ..  
(see instructions) (b) ..
  3. SEC USE ONLY
  4. CITIZENSHIP OR PLACE OF ORGANIZATION  
United States
- |   |  |
|---|--|
| NUMBER OF<br>SHARES<br>BENEFICIALLY<br>OWNED BY<br>EACH<br>REPORTING<br>PERSON WITH | 5. SOLE VOTING POWER<br>2,232,629      |
|   | 6. SHARED VOTING POWER                 |
|   | 7. SOLE DISPOSITIVE POWER<br>2,232,629 |
|   | 8. SHARED DISPOSITIVE POWER            |
9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  
2,232,629
  10. CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN  
SHARES  
..  
(SEE INSTRUCTIONS)
  11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)  
59.0% (1)
  12. TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)  
IN

(1) Based on 3,782,629 shares of Common Stock of the Company outstanding as of November 14, 2014.

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Item 1(a).Name of Issuer:

Signal Genetics, Inc. (the "Company")

Item 1(b).Address of Issuer's Principal Executive Offices:

5740 Fleet Street  
Carlsbad, California 92008

Item 2(a).Name of Person(s) Filing:

LeBow Alpha LLLP  
LeBow Holdings LLC  
Bennett S. LeBow

Item 2(b).Address of Principal Business Office, or, if None, Residence:

LeBow Alpha LLLP  
667 Madison Avenue  
14th Floor  
New York, New York 10065

LeBow Holdings LLC  
667 Madison Avenue  
14th Floor  
New York, New York 10065

Bennett S. LeBow  
667 Madison Avenue  
14th Floor  
New York, New York 10065

Item 2(c).Citizenship:

LeBow Alpha LLLP is a Delaware limited liability limited partnership with its principal place of business in New York.

LeBow Holdings LLC is a Delaware limited liability company with its principal place of business in New York.

Bennett S. LeBow is a United States citizen.

Item 2(d).Title of Class of Securities:

Common Stock, par value \$0.01 per share

Item 2(e).CUSIP Number:

826640104

Item 3. If This Statement is Filed Pursuant to §§ 240.13d-1(b) or 240.13d-2(b) or (c), Check Whether the Person Filing is a:

Not Applicable

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Item 4. Ownership:

The information required by Items 4(a) – (c) is set forth in Rows (5) – (11) of the cover page for each Reporting Person and is incorporated herein by reference.

The shares reported in this Schedule 13G are held directly by LeBow Alpha LLLP. Bennett S. LeBow is the sole member of LeBow Holdings LLC, which is the general partner of LeBow Alpha LLLP. By virtue of their relationship with LeBow Alpha LLLP, LeBow Holdings LLC and Bennett S. LeBow are both deemed to be beneficial owners of the shares held by LeBow Alpha LLLP.

Item 5. Ownership of Five Percent or Less of a Class.

Not Applicable

Item 6. Ownership of More than Five Percent on Behalf of Another Person.

Not Applicable

Item 7. Identification and Classification of the Subsidiary That Acquired the Security Being Reported by the Parent Holding Company or Control Person.

Not Applicable

Item 8. Identification and Classification of Members of the Group.

Not Applicable

Item 9. Notice of Dissolution of the Group.

Not Applicable

Item

10. Certification:

Not Applicable

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: February 11, 2015

LEBOW ALPHA LLLP

By: LeBow Holdings LLC, its general partner

By: /s/ Bennett S. LeBow

Name: Bennett S. LeBow

Title: Sole Member

Date: February 11, 2015

LEBOW HOLDINGS LLC

By: /s/ Bennett S. LeBow

Name: Bennett S. LeBow

Title: Sole Member

Date: February 11, 2015

/s/ Bennett S. LeBow

Name: Bennett S. LeBow

Exhibit A

JOINT FILING AGREEMENT

In accordance with Rule 13d-1(k) under the Securities Exchange Act of 1934, as amended, the undersigned hereby agree to the joint filing on behalf of each of them, of this Schedule 13G (including further amendments thereto) with respect to the common stock, par value \$0.01 per share, of Signal Genetics, Inc., and that this Joint Filing Agreement be included as an exhibit to such joint filing.

This Joint Filing Agreement may be executed in one or more counterparts, and each such counterpart shall be an original but all of which, taken together, shall constitute but one and the same instrument.

IN WITNESS WHEREOF, the undersigned hereby execute this Joint filing Agreement as of this 11th day of February, 2015.

LEBOW ALPHA LLLP

By: LeBow Holdings LLC, its general partner

By: /s/ Bennett S. LeBow

Name: Bennett S. LeBow

Title: Sole Member

LEBOW HOLDINGS LLC

By: /s/ Bennett S. LeBow

Name: Bennett S. LeBow

Title: Sole Member

/s/ Bennett S. LeBow

Name: Bennett S. LeBow