

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

SCHEDULE 13G

Under the Securities Exchange Act of 1934

Cancer Genetics, Inc

(Name of Issuer)

Common

(Title of Class of Securities)

13739U104

(CUSIP Number)

December 31, 2016

(Date of Event Which 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 ("Act") 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).

2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a) / /

(b) / /

3. SEC Use Only

4. Citizenship or Place of Organization

A Minnesota Corporation

Number of

5. Sole Voting Power

Shares Bene- 696,350

Beneficially owned 6. Shared Voting Power

0

by Each

7. Sole Dispositive Power

461,000

Reporting

8. Shared Dispositive Power

Person With: 0

9. Aggregate Amount Beneficially Owned by Each Reporting Person

461,000

10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares
(See Instructions)

11. Percent of Class Represented by Amount in Row 9

7.8%

12. Type of Reporting Person (See Instructions)

IA

Item 1.

(a) Name of Issuer:

Cancer Genetics, Inc.

(b) Address of Issuer's Principal Executive Offices

201 Route 17 North

2nd Floor

Rutherford, NJ 07070

Item 2.

(a) Name of Person Filing

Perkins Capital Management, Inc.

(b)Address of Principal Business Office or, if none, Residence
730 Lake St E
Wayzata, MN 55391

(c)Citizenship
A Minnesota Corporation

(d)Title of Class of Securities
Common

(e)CUSIP Number
09060C309

Item 3. If this statement is filed pursuant to ss240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:

- (a) Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o).
- (b) Bank as defined in section 3(s)(6) of the Act (15 U.S.C. 78c).
- (c) Insurance Company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c).
- (d) Investment Company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8).
- (e) An investment adviser in accordance with s240.13d-1(b)(1)(ii)(E);
- (f) An employee benefit plan or endowment fund in accordance with s240.13d-1(b)(1)(ii)(F);
- (g) A parent holding company or control person in accordance with s240.13d-1(b)(ii)(G);
- (h) A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
- (i) A church plan that is excluded from the definition of an investment company under section 3c(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);
- (j) Group, in accordance with s240.13d-1(b)(1)(ii)(J).

Item 4. Ownership

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.

- (a) Amount Beneficially Owned:
274,900 (includes 124,900 common equivalents and 150,000 warrants exercisable within 60 days)
- (b) Percent of Class:
4.4%
- (c) Number of shares as to which such person has:
 - (i) Sole power to vote or to direct the vote:
116,567
 - (ii) Shared power to vote or to direct the vote:
0
 - (iii) Sole power to dispose or to direct the disposition of:
274,900 (includes 124,900 common equivalents and 150,000

warrants exercisable within 60 days)

(iv) Shared power to dispose or to direct the disposition of:

0

Instruction: For computations regarding securities which represent a right to acquire an underlying security see s240.13d(1).

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

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following /X/.

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

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company

Item 8. Identification and Classification of Members of the Group

Item 9. Notice of Dissolution of Group

Item 10. Certification.

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of and do not have the effect of changing or influencing the control of the issuer of such securities and were not acquired and are not held in connection with or as a participant in any transaction having such purpose or effect.

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.

February 7, 2017

(Date)

/s/ Richard C. Perkins

(Signature)

Richard C. Perkins
Executive VP/Portfolio Manager

(Name/Title)