

CANCER GENETICS, INC
Form S-1/A
October 21, 2013

As filed with the Securities and Exchange Commission on October 21, 2013

Registration No. 333-191633

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Amendment No. 2 to
Form S-1
REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

CANCER GENETICS, INC.

(Exact name of registrant as specified in its charter)

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(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number) 201 Route 17 North 2 nd Floor	(I.R.S. Employer Identification No.)
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Rutherford, NJ 07070

(201) 528-9200

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Panna L. Sharma

Chief Executive Officer

Cancer Genetics, Inc.

201 Route 17 North 2nd Floor

Rutherford, NJ 07070

(201) 528-9200

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Alan Wovsaniker

Yvan-Claude Pierre

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(212) 521-5400

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Approximate date of commencement of proposed sale to the public: As soon as practicable after this Registration Statement becomes effective.

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If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. ☐

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

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 the 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 ☐ (Do not check if a smaller reporting company)

Smaller reporting company ☒

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

EXPLANATORY NOTE

Cancer Genetics, Inc. has prepared this Amendment No. 2 to the Registration Statement (the "Registration Statement") on Form S-1 (File No. 333-191633) solely for the purpose of filing Exhibits 1.1, 5.1 and 23.2 to the Registration Statement and updating Item 16 of the Registration Statement accordingly. This Amendment No. 2 does not modify any provision of the prospectus that forms a part of the Registration Statement and accordingly such prospectus has not been included herein.

PART II**INFORMATION NOT REQUIRED IN PROSPECTUS****Item 13. Other Expenses of Issuance and Distribution**

The following table sets forth the costs and expenses, other than underwriting discounts and commissions, payable in connection with the sale and distribution of the securities being registered. All amounts are estimated except the SEC registration fee, the FINRA filing fee and the NASDAQ listing fee.

Item	Amount
SEC registration fee	\$ 7,406
FINRA filing fee	9,250
NASDAQ listing fee	25,000
Legal fees and expenses	85,000
Accounting fees and expenses	70,000
Printing and engraving expenses	150,000
Transfer agent and registrar fees and expenses	5,000
Non-accountable expense allowance	500,000
Miscellaneous fees and expenses	18,344

<i>Total</i>	<i>\$ 870,000</i>
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Item 14. Indemnification of Directors and Officers

Section 145 of the Delaware General Corporation Law authorizes a court to award, or a corporation's board of directors to grant, indemnity to directors and officers in terms sufficiently broad to permit such indemnification under certain circumstances for liabilities, including reimbursement for expenses incurred, arising under the Securities Act of 1933, as amended, or the Securities Act.

Our amended and restated certificate of incorporation provides for indemnification of our directors and executive officers to the maximum extent permitted by the Delaware General Corporation Law, and our amended and restated bylaws provide for indemnification of our directors and executive officers to the maximum extent permitted by the Delaware General Corporation Law.

In addition, we have entered into indemnification agreements with each of our current directors and executive officers. These agreements will require us to indemnify these individuals to the fullest extent permitted under Delaware law against liabilities that may arise by reason of their service to us and to advance expenses incurred as a result of any proceeding against them as to which they could be indemnified. We also intend to enter into indemnification agreements with our future directors and executive officers.

In any underwriting agreement we enter into in connection with the sale of common stock being registered hereby, the underwriters will agree to indemnify, under certain conditions, us, our directors, our officers and persons who control us, within the meaning of the Securities Act, against certain liabilities.

Item 15. Recent Sales of Unregistered Securities.

Since January 1, 2010, the Registrant made sales of the following unregistered securities. All share, option and warrant amounts (and the exercise price of all options and warrants) reflect (i) the 1-for-2 reverse stock split effected in February 2013, (ii) the 1-for-2.5 reverse stock split effected in March 2013, (iii) any applicable anti-dilution adjustments effected prior to April 30, 2013 to the conversion price of the Registrant's convertible notes and preferred stock or the exercise price of the Registrant's options and warrants, and (iv) the agreement by Mr. Pappajohn to limit the anti-dilution adjustments applicable to warrants held by him.

Sales of Preferred Stock and Related Common Stock and Warrant Issuances

In seven closings from April 2010 to November 2010, the Registrant sold an aggregate of 1,821,600 shares of its Series B preferred stock to approximately 88 accredited investors at a purchase price of \$5.00 per share, for aggregate gross proceeds of approximately \$9.1 million. In addition, the Registrant issued 2,000 shares of its common stock and warrants to purchase an aggregate of 52,464 shares of its common stock at an exercise price of \$25.00 per share to approximately 32 service providers and placement agents in connection with its Series B preferred stock offering. These warrants were issued on its medium form warrant, which is described in the section entitled *Description of Capital Stock Warrants*.

Common Stock Issuances

On November 14, 2011, the Registrant issued 20,000 shares of common stock, subject to certain forfeiture restrictions, to the Mayo Foundation for Medical Education and Research in connection with the execution of the affiliation agreement between the Registrant and Mayo.

Convertible Promissory Notes and Related Warrant Issuances

On February 13, 2013, Dr. Chaganti, our Chairman of the Board, agreed to convert \$100,000 of outstanding principal amount of debt due to him, plus accrued and unpaid interest thereon into shares of common stock at the initial public offering price of \$10.00 per share, effective upon consummation of our initial public offering.

Pursuant to the terms of the Credit Agreement dated as of December 21, 2011, the Registrant issued to Mr. Pappajohn, a member of the board of directors, a convertible promissory note in the amount of \$4.0 million and to NNJCA Capital, a limited liability company of which one of our directors, Dr. Pecora is a member, a promissory note in the amount of \$1.5 million and to Pecora and Company, a promissory note in the amount of \$500,000. Mr. Pappajohn converted the \$4.0 million of the outstanding principal due to him to common stock at the initial public offering price of \$10.00 per share upon consummation of the initial public offering. In connection with the issuance of the notes, the Registrant issued to Mr. Pappajohn five year warrants to purchase an aggregate of 61,176 shares of our common stock at \$15.00 per share.

We entered into a restated Credit Agreement dated as of October 17, 2012 with John Pappajohn and Mark Oman for a \$3.0 million convertible term loan. Mr. Pappajohn provided approximately \$1.8 million of financing and Mr. Oman provided approximately \$1.3 million of financing under the Credit Agreement. Through April 10, 2013 the loan bore an annual interest rate equal to the prime rate plus 6.25% (9.50% at April 10, 2013) and would have matured on February 26, 2014. The outstanding principal amount of the loan automatically converted into an aggregate of 300,000 of our common stock upon completion of our initial public offering. The conversion price was \$10.00 per share, our initial public offering price per share.

Mr. Oman received ten-year warrants which, following adjustments related to our initial public offering, represent the right to purchase an aggregate of 243,334 shares of our common stock at a price of \$10.00 per share. Mr. Pappajohn received ten-year warrants which, following adjustments related to our initial public offering, represent the right to purchase an aggregate of 202,223 shares of our common stock at a price of \$15.00 per share. The warrant exercise prices are subject to standard antidilution protection in the event of stock splits, stock dividends, stock combinations, reclassifications and the like.

On December 7, 2012, Mr. Pappajohn provided an additional \$1.0 million of financing on the same terms as the restated credit agreement. Through April 10, 2013, the loan bore an annual interest rate equal to the prime rate plus 6.25% (9.50% at April 10, 2013) and would have matured on June 4, 2014. The outstanding principal amount of the loan automatically converted into an aggregate of 100,000 shares of our common stock upon completion of our initial public offering.

Mr. Pappajohn received ten-year warrants to purchase an aggregate of 73,333 shares of our common at a price of \$15.00 per share. The warrant exercise price is subject to standard anti-dilution protection in the event of stock splits, stock dividends, stock combinations, reclassifications and the like.

Shares that the lenders received are subject to a lock-up agreement for 180 days after the consummation of the initial public offering on the same terms as other lock-up agreements in favor of the underwriters of this offering, but otherwise have registration rights pursuant to a registration rights agreement entered into simultaneously with the Credit Agreement.

The offers, sales and issuances of the securities described above under Sales of Preferred Stock and Related Common Stock and Warrant Issuances, Common Stock Issuances and Convertible Promissory Note and Related Warrant Issuances were exempt from registration under the Securities Act in reliance on Section 4(2) of the Securities Act or Regulation D promulgated thereunder as transactions by an issuer not involving a public offering. The purchasers or recipients of securities in each of these transactions acquired the securities for investment only and not with a view to or for sale in connection with any distribution thereof. The purchasers of securities or recipients in each of these transactions represented to the Registrant in connection with their purchase that they were accredited investors. The sales of these securities were made without any general solicitation or advertising. Appropriate legends were affixed to securities issued in these transactions.

Option and Common Stock Issuances

Since January 1, 2010, the Registrant granted to a total of approximately 76 employees, officers, directors, consultants and other service providers options to purchase an aggregate of 390,025 shares of common stock, at exercise prices ranging from \$4.00 to \$33.80 per share, under its equity compensation plans. In addition the Registrant granted to two directors options to purchase 80,000 shares of common stock at an exercise price of \$25.00 per share pursuant to certain consulting agreements.

Since January 1, 2010, the Registrant issued and sold to a former officer an aggregate of 45,400 shares of common stock upon the exercise of options under the 2008 Stock Option Plan at an exercise price of \$4.00 per share, for an aggregate exercise price of \$181,000, \$1,600 paid in cash and the remainder paid in stock valued at \$25.00 per share.

The offers, sales and issuances of the securities described above were exempt from registration under the Securities Act pursuant to Rule 701 as offers and sales of securities pursuant to certain compensatory benefit plans or contracts relating to compensation or Regulation D promulgated under Section 4(2) of the Securities Act. The recipients of such securities were employees, directors, consultants or other service providers of the Registrant. The securities were issued under our 2008 Stock Option Plan or pursuant to individual consulting agreements. Appropriate legends were affixed to the securities issued in these transactions. Each of the recipients of securities in these transactions represented their intention to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof. The sales of these securities were made without any general solicitation or advertising. Each of the recipients of securities in these transactions had adequate access, through their employment or business relationships, to information about the Registrant.

Warrant and Common Stock Issuances

Since January 1, 2010, as consideration for his personal guarantee of the Registrant's credit facility with Wells Fargo and for each of the eight extensions of this facility since January 1, 2010, the Registrant issued to Mr. Pappajohn, a member of our board, warrants to purchase an aggregate of 352,312 shares of its common stock, of which 206,533 warrants were issued on its long form warrant, 37,000 were issued on its Bridge Financing Warrant Form, and warrants to purchase an aggregate of 108,778 shares of common stock on the Modified Bridge Form, each of which is described in the section entitled Description of Capital Stock Warrants, and have exercise prices ranging from \$4.00 to \$15.00 per share. The warrant exercise price is subject to standard anti-dilution protection in the event of stock splits, stock dividends, stock combinations, reclassifications and the like.

On March 23, 2011, the Registrant issued to DAM warrants to purchase 60,000 shares of its common stock at an exercise price of \$10.00 per share in conjunction with the \$3.0 million line of credit DAM provided to the Registrant. On March 9, 2012, in connection with the extension and amendment of this line of credit, the Registrant issued to DAM warrants to purchase 15,000 shares of its common stock, which warrants were subsequently cancelled in connection with an amendment to the note to increase interest payable thereunder. These warrants were issued on its medium form warrant, which is described in the section entitled Description of Capital Stock Warrants. Upon consummation of the initial public offering, DAM converted \$1.0 million of outstanding principal amount due to DAM to common stock at the initial public offering price of \$10.00 per share.

Since January 1, 2010, the Registrant issued to one director and three new consultants, warrants to purchase an aggregate of 29,137 shares of common stock on its long form warrant and 200 shares of common stock on its medium form warrant. These warrants have an exercise price of \$10.00 per share. The medium form warrant and long form warrant are described in the section entitled Description of Capital Stock Warrants.

Since January 1, 2010, the Registrant issued and sold to Mr. Pappajohn, a member of our board, an aggregate of 3,546 shares of common stock upon the exercise of certain outstanding short form warrants at an exercise price of \$14.10 per share for an aggregate exercise price of \$50,000.

Since January 1, 2010, the Registrant issued and sold to approximately five of the service providers and placement agents from its Series A preferred stock offering, an aggregate of 30,000 shares of common stock upon the exercise of certain outstanding short form warrants at an exercise price of \$10.75 per share and an aggregate of 18,615 shares of common stock upon the exercise of certain outstanding short form warrants at an exercise price of \$14.10 per share.

Since January 1, 2010, the Registrant issued and sold to an individual who financed a bridge loan to the Registrant in 2007 an aggregate of 2,482 shares of common stock upon the partial exercise of a Short Form Warrant at an exercise price of \$14.10 per share, for an aggregate exercise price of approximately \$35,000.

Since January 1, 2010, the Registrant issued and sold to five of its Series A preferred stock holders an aggregate of 3,813 shares of common stock upon the full exercise of Long Form Warrants at an exercise price of \$4.00 per share, for an aggregate exercise price of approximately \$15,251.

Since January 1, 2010, the Registrant issued and sold to Ann and Argyris Vassiliou, to AANA, Ltd., an investment partnership in which Ann and Argyris Vassiliou and their two minor children are the sole partners, and to NICALE Partners, an investment partnership for the two minor children of Ann and Argyris Vassiliou, an aggregate of 48,000 shares of its common stock upon the exercise of Long Form Warrants at an exercise price of \$4.00 per share, for an aggregate exercise price of approximately \$192,000.

Since January 1, 2010, the Registrant issued and sold to a warrant holder, an aggregate of 6,000 shares of its common stock upon the full exercise of a Long Form Warrant at an exercise price of \$4.00 per share, for an aggregate exercise price of \$24,000. 2,072 shares of common stock were surrendered to the Company for payment in full of the exercise price.

Since January 1, 2010, the Registrant issued 2,000 shares of common stock to The Cleveland Clinic as consideration under that certain License Agreement, dated as of October 1, 2012, between the Company and The Cleveland Clinic Foundation.

Since January 1, 2010, the Registrant issued to 14 persons associated with the placement agents from its Series B preferred stock offering, an aggregate of 15,726 shares of common stock upon the net issue exercise of certain outstanding medium form warrants to purchase an aggregate of 30,034 shares of common stock at an exercise price of \$10.00 per share.

The offers, sales and issuances of the securities described above were exempt from registration under the Securities Act in reliance on Section 4(2) of the Securities Act or Regulation D promulgated thereunder as transactions by an issuer not involving a public offering. The recipients of securities in each of these transactions acquired the securities for investment only and not with a view to or for sale in connection with any distribution thereof. Appropriate legends were affixed to securities issued in these transactions. Each of the recipients of securities in these transactions had adequate access, through their business relationships, to information about the Registrant.

Item 16. Exhibits and Financial Statement Schedules.

(a) Exhibits

EXHIBITS

Exhibit No.	Description of Exhibit
1.1*	Form of Underwriting Agreement between Cancer Genetics, Inc. and Aegis Capital Corp., as representative of the several underwriters.
3.1	Third Amended and Restated Certificate of Incorporation of Cancer Genetics, Inc., filed as Exhibit 3.1 to quarterly report on Form 10-Q filed on May 15, 2013 and incorporated herein by reference.
3.2	Amended and Restated Bylaws of Cancer Genetics, Inc., filed as Exhibit 3.4 to Form S-1/A filed on April 30, 2012 (File No. 333-178836) and incorporated herein by reference.
4.1	Specimen Common Stock certificate of Cancer Genetics, Inc., filed as Exhibit 4.1 to Form S-1/A filed on May 16, 2012 (File No. 333-178836) and incorporated herein by reference.
4.2	Registration Rights Agreement, between Cancer Genetics, Inc. and DAM Holdings, LLC, dated March 23, 2011, filed as Exhibit 4.2 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
4.3	Form of Amended and Restated Investors Rights Agreement, dated as of April 13, 2010, between Cancer Genetics, Inc. and certain investors named therein, filed as Exhibit 4.3 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
4.4	Form of Amendment to Amended and Restated Investors Rights Agreement, dated as of December 8, 2011, filed as Exhibit 4.4 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
4.5	Form of Amended and Restated Stockholders Agreement, dated April 13, 2010, between Cancer Genetics, Inc. and certain investors named therein, filed as Exhibit 4.5 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
4.6	Form of Series B Convertible Preferred Stock Purchase Agreement, between Cancer Genetics, Inc. and certain purchasers named therein, filed as Exhibit 4.6 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
4.7	Form of Amendment to Series B Convertible Preferred Stock Purchase Agreement, dated December 8, 2011, filed as Exhibit 4.7 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
4.8	Form of Short Form Warrant, filed as Exhibit 4.8 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
4.9	Form of Short Form Cashless Exercise Warrant, filed as Exhibit 4.9 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.

Exhibit No.	Description of Exhibit
4.10	Form of Medium Form Warrant, filed as Exhibit 4.10 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
4.11	Form of Long Form Warrant, filed as Exhibit 4.11 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
4.12	Convertible Promissory Note, dated May 19, 2006, between Cancer Genetics, Inc. and R.S.K. Chaganti, as amended, filed as Exhibit 4.12 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
4.13	Convertible Promissory Note, dated January 10, 2010, between Cancer Genetics, Inc. and Jane Houldsworth, filed as Exhibit 4.13 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
5.1*	Opinion of Lowenstein Sandler LLP.
10.1	Amended and Restated 2008 Stock Option Plan, filed as Exhibit 10.1 to Form S-1/A filed on October 23, 2012 (File No. 333-178836) and incorporated herein by reference.
10.2	Form of Notice of Stock Option Grant under 2008 Stock Option Plan, filed as Exhibit 10.2 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
10.3	Form of Stock Option Grant Agreement under 2008 Stock Option Plan, filed as Exhibit 10.3 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
10.4	Form of Exercise Notice and Restricted Stock Purchase Agreement under 2008 Stock Option Plan, filed as Exhibit 10.4 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
10.5	Amended and Restated 2011 Equity Compensation Plan, filed as Exhibit 10.5 to Form S-1/A filed on October 23, 2012 (File No. 333-178836) and incorporated herein by reference.
10.6	Form of Stock Option Grant Agreement under 2011 Stock Option Plan, filed as Exhibit 10.6 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
10.7	Form of Indemnification Agreement, filed as Exhibit 10.7 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
10.8	Consulting Agreement between Cancer Genetics, Inc. and TSG, LLC, dated June 19, 2009, filed as Exhibit 10.8 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
10.9	Medical Director Agreement, between Cancer Genetics, Inc. and Lan Wang, M.D., dated October 9, 2009, filed as Exhibit 10.9 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
10.10	Employment Agreement, between Cancer Genetics, Inc. and Louis Maione, dated October 21, 2009, filed as Exhibit 10.10 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
10.11	Consulting Agreement, between Cancer Genetics, Inc. and Louis Maione, dated June 10, 2010, filed as Exhibit 10.11 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
10.12	Termination Agreement, between Cancer Genetics, Inc. and Louis Maione, dated June 10, 2010, filed as Exhibit 10.12 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.

Exhibit No.	Description of Exhibit
10.13	Consulting Agreement, between Cancer Genetics, Inc. and Edmund Cannon, dated July 1, 2010, filed as Exhibit 10.13 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
10.14	Consulting Agreement, between Cancer Genetics, Inc. and Andrew Pecora, dated August 15, 2010, filed as Exhibit 10.14 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
10.15	Consulting Agreement, between Cancer Genetics, Inc. and R.S.K. Chaganti, dated September 15, 2010, filed as Exhibit 10.15 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
10.16	Consulting Agreement, between Cancer Genetics, Inc. and TSG, LLC, dated September 23, 2010, filed as Exhibit 10.16 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
10.17	Employment Agreement, between Panna Sharma and Cancer Genetics, Inc., effective as of April 1, 2010, filed as Exhibit 10.17 to Form S-1/A filed on February 14, 2012 (File No. 333-178836) and incorporated herein by reference.
10.18	Employment Agreement, between Elizabeth Czerepak and Cancer Genetics, Inc., effective as of January 1, 2012, filed as Exhibit 10.18 to Form S-1/A filed on February 14, 2012 (File No. 333-178836) and incorporated herein by reference.
10.19	Employment Agreement, between Jane Houldsworth El Naggar, Ph.D. and Cancer Genetics, Inc., effective as of January 1, 2012, filed as Exhibit 10.19 to Form S-1/A filed on February 14, 2012 (File No. 333-178836) and incorporated herein by reference.
10.20	Office Lease Agreement, between Cancer Genetics, Inc. and Onyx Equities, LLC, dated October 9, 2007, filed as Exhibit 10.20 to Form S-1/A filed on April 23, 2012 (File No. 333-178836) and incorporated herein by reference.
10.21	Credit Agreement, between Cancer Genetics, Inc. and Wells Fargo Bank, N.A., dated April 29, 2008, filed as Exhibit 10.21 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
10.22	Security Agreement, between Cancer Genetics, Inc. and Wells Fargo Bank, N.A., dated April 29, 2008, filed as Exhibit 10.22 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
10.23	First Addendum to Credit Agreement, between Cancer Genetics, Inc. and Wells Fargo Bank, N.A., dated July 7, 2008, filed as Exhibit 10.23 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
10.24	Second Addendum to Credit Agreement, between Cancer Genetics, Inc. and Wells Fargo Bank, N.A., dated March 30, 2009, filed as Exhibit 10.24 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
10.25	Third Addendum to Credit Agreement, between Cancer Genetics, Inc. and Wells Fargo Bank, N.A., dated July 2, 2009, filed as Exhibit 10.25 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
10.26	Fourth Addendum to Credit Agreement, between Cancer Genetics, Inc. and Wells Fargo Bank, N.A., dated October 21, 2009, filed as Exhibit 10.26 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.

Exhibit No.	Description of Exhibit
10.27	Fifth Addendum to Credit Agreement, between Cancer Genetics, Inc. and Wells Fargo Bank, N.A., dated July 29, 2010, filed as Exhibit 10.27 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
10.28	Credit Agreement, between Cancer Genetics, Inc. and DAM Holdings, LLC, dated March 23, 2011, filed as Exhibit 10.28 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
10.29	Inter-creditor Agreement, between Cancer Genetics, Inc., John Pappajohn and DAM Holdings, LLC, dated March 23, 2011, filed as Exhibit 10.29 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
10.30	General Business Security Agreement, between Cancer Genetics, Inc. and DAM Holdings, LLC, dated March 23, 2011, filed as Exhibit 10.30 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
10.31	Promissory Note, issued by Cancer Genetics, Inc. to DAM Holdings, LLC, dated March 23, 2011, filed as Exhibit 10.31 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
10.32	Sixth Addendum to Credit Agreement, between Cancer Genetics, Inc. and Wells Fargo Bank, N.A., dated June 6, 2011, filed as Exhibit 10.32 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
10.33	Amended and Restated Credit Agreement, by and among Cancer Genetics, Inc., John Pappajohn, Pecora and Company and NNJCA Capital, LLC dated February 13, 2012, filed as Exhibit 10.33 to Form S-1/A filed on March 13, 2012 (File No. 333-178836) and incorporated herein by reference.
10.34	Form of Promissory Note issued by Cancer Genetics, Inc. to John Pappajohn, filed as Exhibit 10.34 to Form S-1/A filed on March 13, 2012 (File No. 333-178836) and incorporated herein by reference.
10.35	Form of Promissory Note issued by Cancer Genetics, Inc. to NNJCA Capital, LLC and Pecora and Company, filed as Exhibit 10.35 to Form S-1/A filed on March 13, 2012 (File No. 333-178836) and incorporated herein by reference.
10.36	Form of Bridge Financing Warrant issued by Cancer Genetics, Inc. to John Pappajohn, NNJCA Capital, LLC, Pecora and Company and DAM Holdings, LLC., filed as Exhibit 10.36 to Form S-1/A filed on March 13, 2012 (File No. 333-178836) and incorporated herein by reference.
10.37	Inter-Creditor Agreement, between Cancer Genetics, Inc., John Pappajohn, DAM Holdings, LLC, Pecora and Company, NNJCA Capital, LLC and Equity Dynamics, Inc., dated February 13, 2012, filed as Exhibit 10.37 to Form S-1/A filed on March 13, 2012 (File No. 333-178836) and incorporated herein by reference.
10.38	Seventh Addendum to Credit Agreement, between Cancer Genetics, Inc. and Wells Fargo Bank, N.A., dated February 15, 2012, filed as Exhibit 10.38 to Form S-1/A filed on March 13, 2012 (File No. 333-178836) and incorporated herein by reference.
10.39	Amendment to Credit Agreement, between Cancer Genetics, Inc. and DAM Holdings, LLC, dated March 9, 2012, filed as Exhibit 10.33 to Form S-1/A filed on March 13, 2012 (File No. 333-178836) and incorporated herein by reference.
10.40	Affiliation Agreement, between Cancer Genetics, Inc. and Mayo Foundation for Medical Education and Research dated November 7, 2011, filed as Exhibit 10.35 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.

Exhibit No.	Description of Exhibit
10.41	Consulting Agreement with Equity Dynamics, Inc., filed as Exhibit 10.38 to Form S-1/A filed on February 14, 2012 (File No. 333-178836) and incorporated herein by reference.
10.42	Funding Commitment Letter, from John Pappajohn, Equity Dynamics Inc. to the Company, dated April 14, 2012, filed as Exhibit 10.42 to Form S-1/A filed on April 23, 2012 (File No. 333-178836) and incorporated herein by reference.
10.43	Letter Agreement, between Panna Sharma and Cancer Genetics, Inc., dated March 29, 2012, filed as Exhibit 10.43 to Form S-1/A filed on April 23, 2012 (File No. 333-178836) and incorporated herein by reference.
10.44	Letter Agreement, between Meadows Office, L.L.C. and Cancer Genetics, Inc., dated January 10, 2008, filed as Exhibit 10.44 to Form S-1/A filed on April 23, 2012 (File No. 333-178836) and incorporated herein by reference.
10.45	Letter Agreement, between Meadows Office, L.L.C. and Cancer Genetics, Inc., dated April 6, 2012, filed as Exhibit 10.45 to Form S-1/A filed on April 23, 2012 (File No. 333-178836) and incorporated herein by reference.
10.46	Letter of Credit from JPMorgan Chase Bank, N.A., dated April 19, 2012, filed as Exhibit 10.46 to Form S-1/A filed on April 30, 2012 (File No. 333-178836) and incorporated herein by reference.
10.47	Letter Agreement between Cancer Genetics, Inc. and John Pappajohn, filed as Exhibit 10.47 to Form S-1/A filed on May 7, 2012 (File No. 333-178836) and incorporated herein by reference.
10.48	Confidential Settlement Agreement and Release of All Claims, between and among Louis J. Maione, Esq., Cancer Genetics, Inc., John Pappajohn, Raju Chaganti, Andrew Pecora, Tommy Thompson, Edmund Cannon, Matthew Kinley, Panna Sharma, and GAP Partners, LLP, dated May 2012, filed as Exhibit 10.48 to Form S-1/A filed on October 23, 2012 (File No. 333-178836) and incorporated herein by reference.
10.49	Amendment No. 1 to Affiliation Agreement, between Cancer Genetics, Inc. and Mayo Foundation for Medical Education and Research, dated September 29, 2012, filed as Exhibit 10.49 to Form S-1/A filed on October 23, 2012 (File No. 333-178836) and incorporated herein by reference.
10.50	Form of Modified Bridge Warrant issued by Cancer Genetics, Inc. to John Pappajohn and Mark Oman, filed as Exhibit 10.50 to Form S-1/A filed on October 23, 2012 (File No. 333-178836) and incorporated herein by reference.
10.51	Restated Credit Agreement, between Mark Oman and John Pappajohn and Cancer Genetics, Inc., dated October 17, 2012, filed as Exhibit 10.51 to Form S-1/A filed on October 23, 2012 (File No. 333-178836) and incorporated herein by reference.
10.52	Form of Restated Promissory Note issued by Cancer Genetics, Inc. to John Pappajohn and Mark Oman, filed as Exhibit 10.52 to Form S-1/A filed on October 23, 2012 (File No. 333-178836) and incorporated herein by reference.
10.53	Form of October 2012 Warrant issued by Cancer Genetics, Inc. to John Pappajohn and Mark Oman, filed as Exhibit 10.53 to Form S-1/A filed on October 23, 2012 (File No. 333-178836) and incorporated herein by reference.
10.54	Restated Registration Rights Agreement, between Cancer Genetics, Inc., Mark Oman and John Pappajohn, dated October 17, 2012, filed as Exhibit 10.54 to Form S-1/A filed on October 23, 2012 (File No. 333-178836) and incorporated herein by reference.
10.55	Letter Agreement between Cancer Genetics, Inc. and Pecora, filed as Exhibit 10.55 to Form S-1/A filed on October 23, 2012 (File No. 333-178836) and incorporated herein by reference.

Exhibit No.	Description of Exhibit
10.56	Letter Agreement between Cancer Genetics, Inc. and NNJCA Capital, LLC, filed as Exhibit 10.56 to Form S-1/A filed on October 23, 2012 (File No. 333-178836) and incorporated herein by reference.
10.57	Letter Agreement between Cancer Genetics, Inc. and DAM Holdings, Inc., filed as Exhibit 10.57 to Form S-1/A filed on October 23, 2012 (File No. 333-178836) and incorporated herein by reference.
10.58	Eighth Addendum to Credit Agreement, between Cancer Genetics, Inc. and Wells Fargo Bank, N.A., dated October 18, 2012, filed as Exhibit 10.58 to Form S-1/A filed on November 16, 2012 (File No. 333-178836) and incorporated herein by reference.
10.59	Credit Agreement between John Pappajohn and Cancer Genetics, Inc. dated December 4, 2012, filed as Exhibit 10.59 to Form S-1/A filed on December 14, 2012 (File No. 333-178836) and incorporated herein by reference.
10.60	Promissory Note issued by Cancer Genetics, Inc. to John Pappajohn dated December 4, 2012, filed as Exhibit 10.60 to Form S-1/A filed on December 14, 2012 (File No. 333-178836) and incorporated herein by reference.
10.61	Amendment No. 2 to Affiliation Agreement between Cancer Genetics, Inc. and Mayo Foundation for Medical Education and Research, dated January 4, 2013, filed as Exhibit 10.61 to Form S-1/A filed on January 8, 2013 (File No. 333-178836) and incorporated herein by reference.
10.62	Written Description of Amendment to Letter Agreement, between Meadows Office, L.L.C. and Cancer Genetics, Inc., dated April 6, 2012, filed as Exhibit 10.62 to Form S-1/A filed on January 8, 2013 (File No. 333-178836) and incorporated herein by reference.
10.63	Letter Agreement between Cancer Genetics, Inc. and John Pappajohn dated February 11, 2013, filed as Exhibit 10.63 to Form S-1/A filed on February 12, 2013 (File No. 333-178836) and incorporated herein by reference.
10.64	Letter Agreement between Cancer Genetics, Inc. and John Pappajohn (on behalf of his spouse) dated February 13, 2013, filed as Exhibit 10.64 to Form S-1/A filed on February 14, 2013 (File No. 333-178836) and incorporated herein by reference.
10.65	Letter Agreement between Cancer Genetics, Inc. and NNJCA Capital, LLC dated as of February 13, 2013, filed as Exhibit 10.65 to Form S-1/A filed on February 14, 2013 (File No. 333-178836) and incorporated herein by reference.
10.66	Letter Agreement between Cancer Genetics, Inc. and DAM Holdings, LLC dated February 13, 2013, filed as Exhibit 10.66 to Form S-1/A filed on February 14, 2013 (File No. 333-178836) and incorporated herein by reference.
10.67	Letter Agreement between Cancer Genetics, Inc. and R.S.K. Chaganti, dated February 13, 2013, filed as Exhibit 10.67 to Form S-1/A filed on March 4, 2013 (File No. 333-178836) and incorporated herein by reference.
10.68	Form of Letter Agreement between Cancer Genetics, Inc. and certain warrant holders waiving certain anti-dilution rights, filed as Exhibit 10.68 to Form S-1/A filed on March 4, 2013 (File No. 333-178836) and incorporated herein by reference.
10.69	Letter Agreement, between Meadows Office, L.L.C. and Cancer Genetics, Inc., dated March 8, 2013, filed as Exhibit 10.69 to Form S-1/A filed on March 11, 2013 (File No. 333-178836) and incorporated herein by reference.
10.70	Form of Loan Extension Agreement for DAM dated March 19, 2013, filed as Exhibit 10.70 to Form S-1/A filed on March 22, 2013 (File No. 333-178836) and incorporated herein by reference.

Exhibit No.	Description of Exhibit
10.71	Form of Loan Extension Agreement for Dr. Pecora dated March 19, 2013, filed as Exhibit 10.71 to Form S-1/A filed on March 22, 2013 (File No. 333-178836) and incorporated herein by reference.
10.72	Letter Amendment dated March 20, 2013 to Letter Agreement, between Meadows Office, L.L.C. and Cancer Genetics, Inc., dated April 6, 2012, filed as Exhibit 10.72 to Form S-1/A filed on March 22, 2013 (File No. 333-178836) and incorporated herein by reference.
10.73	Amendment No. 3 to Affiliation Agreement between the Company and Mayo Foundation for Medical Education and Research, dated May 21, 2013, filed as Exhibit 10.73 to Form S-1 filed on June 5, 2013 (File No. 333-189117) and incorporated herein by reference.
10.74	Limited Liability Company Agreement of OncoSpire Genomics, LLC, dated May 21, 2013, filed as Exhibit 10.74 to Form S-1/A filed on July 12, 2013 (File No. 333-189117) and incorporated herein by reference.
10.75	Joint Development Intellectual Property Agreement, among the Company, Mayo Foundation for Medical Education and Research and OncoSpire Genomics, LLC, dated May 21, 2013, filed as Exhibit 10.75 to Form S-1/A filed on July 12, 2013 (File No. 333-189117) and incorporated herein by reference.
21.1	Subsidiaries of Cancer Genetics, Inc., filed as Exhibit 21.1 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
23.1	Consent of McGladrey LLP.
23.2*	Consent of Lowenstein Sandler LLP (included in Exhibit 5.1).
24.1	Power of Attorney (included on the signature page).
101**	The following materials formatted in XBRL (eXtensible Business Reporting Language): (i) Consolidated Balance Sheet at December 31, 2012 and June 30, 2013 (unaudited), (ii) Consolidated Statements of Operations and Comprehensive Loss for the three month periods ended June 30, 2012 and 2013, (iii) Consolidated Statements of Cash Flows for the three month periods ended June 30, 2012 and 2013 (unaudited), (iv) Notes to Unaudited Consolidated Financial Statements, (v) Consolidated Balance Sheets for the years ended December 31, 2011 and 2012, (vi) Consolidated Statements of Operations for the years ended December 31, 2010, 2011 and 2012, (vii) Consolidated Statements of Changes in Stockholders' (Deficit) for the years ended December 31, 2010, 2011 and 2012, (viii) Consolidated Statements of Cash Flows for the years ended December 31, 2010, 2011 and 2012, and (ix) Notes to Audited Consolidated Financial Statements.

* Filed herewith. All other exhibits have been previously filed.

** In accordance with Rule 406T of Regulation S-T, the Interactive Data Files in Exhibit 101 to this Registration Statement on Form S-1 are deemed not filed or part of a registration statement or prospectus for purposes of Sections 11 or 12 of the Securities Act of 1933, as amended, are deemed not filed for purposes of Section 18 of the Exchange Act of 1934, as amended, and otherwise are not subject to liability under these sections.

(b) Financial Statement Schedules

No financial statement schedules are provided because the information is not required or is shown either in the financial statements or the notes thereto.

Item 17. Undertakings

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by us of expenses incurred or paid by one of our directors, officers or controlling persons in the successful defense of any action, suit, or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, we will, unless in the opinion of counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by us is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned Registrant hereby undertakes that:

(i) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective; and

(ii) For purposes of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Rutherford, State of New Jersey, on the 21st day of October, 2013.

CANCER GENETICS, INC.

By: /s/ PANNA L. SHARMA
Panna L. Sharma

President and Chief Executive Officer

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

Signature	Title	Date
/s/ Panna L. Sharma	President, Chief Executive Officer and Director	October 21, 2013
Panna L. Sharma	<i>(Principal Executive Officer)</i>	
/s/ Elizabeth A. Czerepak	Chief Financial Officer	October 21, 2013
Elizabeth A. Czerepak	<i>(Principal Financial Officer and Principal Accounting Officer)</i>	
*	Chairman of the Board of Directors	October 21, 2013
Raju S. K. Chaganti, Ph.D.		
*	Director	October 21, 2013
Keith L. Brownlie, CPA		
*	Director	October 21, 2013
Edmund Cannon		
*	Director	October 21, 2013
John Pappajohn		
*	Director	October 21, 2013
Andrew Pecora, M.D.		
*	Director	October 21, 2013
Tommy G. Thompson		
*	Director	October 21, 2013
Franklyn G. Prendergast, M.D., Ph.D.		

*/s/ Elizabeth A. Czerepak

as attorney in fact

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