

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

FORM S-8
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

Clearside Biomedical, Inc.

(Exact name of Registrant as specified in its charter)

Delaware
(State or other jurisdiction of Incorporation or organization)

45-2437375
(I.R.S. Employer Identification No.)

**1220 Old Alpharetta Road, Suite 300
Alpharetta, Georgia 30005**

(Address of principal executive offices) (Zip code)

**2016 Equity Incentive Plan
2016 Employee Stock Purchase Plan**

(Full title of the plan)

**Daniel H. White
President and Chief Executive Officer
Clearside Biomedical, Inc.
1220 Old Alpharetta Road, Suite 300
Alpharetta, Georgia 30005
(678) 270-3631**

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

Copies to:

**Brent B. Siler
Brian F. Leaf
Cooley LLP
11951 Freedom Drive
Reston, VA 20190
(703) 456-8000**

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.

Large accelerated filer Accelerated filer
Non-accelerated filer (Do not check if a smaller reporting company) Smaller reporting company

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered (1)	Proposed Maximum Offering Price Per Share (2)	Proposed Maximum Aggregate Offering Price (2)	Amount of Registration Fee
Common Stock, par value \$0.001 per share	1,228,651 shares	\$ 6.20	\$ 7,617,636.20	\$ 882.88

(1) Pursuant to Rule 416(a) promulgated under the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement shall also cover any additional shares of the Registrant's Common Stock that become issuable under the 2016 Equity Incentive Plan (the "2016 EIP") and the 2016 Employee Stock Purchase Plan (the "2016 ESPP") set forth herein by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without receipt of consideration that increases the number of outstanding shares of the Registrant's Common Stock.

(2) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(c) promulgated under the Securities Act. The proposed maximum offering price per share and the proposed maximum aggregate offering price are calculated using the average of the high and low prices of the Registrant's Common Stock as reported on the NASDAQ Global Market on March 14, 2017. The chart below details the calculations of the registration fee:

Securities	Number of Shares	Offering Price Per Share (2)	Aggregate Offering Price
Additional shares reserved for future grant under the 2016 EIP	982,921 shares	\$ 6.20	\$ 6,094,110.20
Additional shares reserved for future grant under the 2016 ESPP	245,730 shares	\$ 6.20	\$ 1,523,526.00
Proposed maximum aggregate offering price			\$ 7,617,636.20
Registration Fee			\$ 882.88

EXPLANATORY NOTE

This Registration Statement on Form S-8 is being filed for the purpose of registering an aggregate of an additional 1,228,651 shares of Common Stock of Clearside Biomedical, Inc. to be issued pursuant to the 2016 EIP and the 2016 ESPP.

PART II

ITEM 3. INCORPORATION OF DOCUMENTS BY REFERENCE

The contents of the earlier registration statement relating to the 2016 EIP and 2016 ESPP, previously filed with the Securities and Exchange Commission on June 14, 2016 (File No. 333-212014) are incorporated herein by reference and made a part of this Registration Statement.

ITEM 8. EXHIBITS

Exhibit Number	Description
4.1(1)	Amended and Restated Certificate of Incorporation, as currently in effect.
4.2(2)	Amended and Restated Bylaws, as currently in effect.
4.3(3)	Specimen stock certificate evidencing shares of Common Stock.
4.4(4)	2016 Equity Incentive Plan.
4.5(5)	Form of Stock Option Grant Notice and Stock Option Agreement under 2016 Equity Incentive Plan.
4.6(6)	Form of Restricted Stock Unit Grant Notice and Restricted Stock Unit Award Agreement under 2016 Equity Incentive Plan.
4.7(7)	2016 Employee Stock Purchase Plan.
5.1	Opinion of Cooley LLP.
23.1	Consent of Ernst & Young LLP, independent registered public accounting firm.
23.2	Consent of Cooley LLP (included in Exhibit 5.1).
24.1	Power of Attorney (included on the signature page of this Form S-8).

(1)	Previously filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K (File No. 001-37783), filed with the Commission on June 7, 2016, and incorporated by reference herein.
(2)	Previously filed as Exhibit 3.2 to the Registrant's Current Report on Form 8-K (File No. 001-37783), filed with the Commission on June 7, 2016, and incorporated by reference herein.
(3)	Previously filed as Exhibit 4.1 to Amendment No. 1 to the Registrant's Registration Statement on Form S-1 (File No. 333-208916), filed with the Commission on March 18, 2016, and incorporated by reference herein.
(4)	Previously filed as Exhibit 4.7 to the Registrant's Registration Statement on Form S-8 (File No. 333-212014), filed with the Commission on June 14, 2016, and incorporated by reference herein.
(5)	Previously filed as Exhibit 10.7 to Amendment No. 1 to the Registrant's Registration Statement on Form S-1 (File No. 333-208916), filed with the Commission on March 18, 2016, and incorporated by reference herein.
(6)	Previously filed as Exhibit 10.8 to Amendment No. 1 to the Registrant's Registration Statement on Form S-1 (File No. 333-208916), filed with the Commission on March 18, 2016, and incorporated by reference herein.
(7)	Previously filed as Exhibit 4.10 to the Registrant's Registration Statement on Form S-8 (File No. 333-212014), filed with the Commission on June 14, 2016, and incorporated by reference herein.

ITEM 9. UNDERTAKINGS

1. The undersigned registrant hereby undertakes:

(a) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement.

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

Provided, however, that paragraphs (a)(i) and (a)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to section 13 or section 15(d) of the Exchange Act that are incorporated by reference in the registration statement.

(b) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered herein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(d) That, for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

2. The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Exchange Act) that is incorporated by reference in the Registration Statement shall be deemed to be a new registration statement relating to the securities offered herein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
3. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission 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 the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant 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, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant 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 Alpharetta, State of Georgia, on this 16th day of March, 2017.

Clearside Biomedical, Inc.

By: /s/ Daniel H. White
Daniel H. White
President and Chief Executive Officer

POWER OF ATTORNEY

Know All Persons By These Presents, that each person whose signature appears below constitutes and appoints Daniel H. White, Charles A. Deignan and Brent B. Siler, and each or any one of them, his or her true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their or his or her substitutes or substitute, 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.

Signature	Title	Date
<u>/s/ Daniel H. White</u> Daniel H. White	President, Chief Executive Officer and Director (<i>Principal Executive Officer</i>)	March 16, 2017
<u>/s/ Charles A. Deignan</u> Charles A. Deignan	Chief Financial Officer (<i>Principal Financial Officer and Principal Accounting Officer</i>)	March 16, 2017
<u>/s/Christy L. Shaffer, Ph.D.</u> Christy L. Shaffer, Ph.D.	Director	March 16, 2017
<u>/s/Clay B. Thorp</u> Clay B. Thorp	Director	March 16, 2017
<u>/s/William D Humphries</u> William D. Humphries	Director	March 16, 2017
<u>/s/Evgeny Zaytsev, M.D.</u> Evgeny Zaytsev, M.D.	Director	March 16, 2017
<u>/s/Gerald D. Cagle, Ph.D.</u> Gerald D. Cagle, Ph.D.	Director	March 16, 2017
<u>/s/Derek Yoon</u> Derek Yoon	Director	March 16, 2017
<u>/s/Richard Croarkin</u> Richard Croarkin	Director	March 16, 2017

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Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement (Form S-8 No. 333-212014) pertaining to the 2011 Stock Incentive Plan, as amended, Stock Option Awards, 2016 Equity Incentive Plan, and 2016 Employee Stock Purchase Plan of Clearside Biomedical, Inc. of our report dated March 16, 2017, with respect to the financial statements of Clearside Biomedical, Inc. included in this Annual Report (Form 10-K) for the year ended December 31, 2016.

/s/Ernst & Young LLP
Atlanta, Georgia
March 16, 2017