

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

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

**Aclaris Therapeutics, Inc.**  
(Exact name of Registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction of Incorporation or organization)

**46-0571712**  
(I.R.S. Employer Identification No.)

**101 Lindenwood Drive, Suite 400  
Malvern, PA 19355**

(Address of principal executive offices) (Zip code)

**2015 Equity Incentive Plan**

(Full title of the plan)

**Neal Walker**  
**President and Chief Executive Officer**  
**Aclaris Therapeutics, Inc.**  
**101 Lindenwood Drive, Suite 400**  
**Malvern, PA 19355**  
**(484) 324-7933**

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

**Brent B. Siler**  
**Divakar Gupta**  
**Brian F. Leaf**  
**Cooley LLP**  
11951 Freedom Drive  
Reston, VA 20190  
Tel: (703) 456-8000  
Fax: (703) 456-8100

*Copies to:*  
**Legal Officer, Inc.**  
**484) 324-7933**  
**Kamil Ali-Jackson**  
**Chief Legal Officer**  
**Aclaris Therapeutics, Inc.**  
**101 Lindenwood Drive, Suite 400**  
**Malvern, PA 19355**  
**Tel: (484) 324-7933**

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 \$0.00001 per share	806,300 shares	\$15.715	\$12,671,004.50	\$1,275.98

(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 2015 Equity Incentive Plan (the "2015 EIP") 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 Select Market on March 21, 2016. 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 2015 EIP	806,300	\$15.715 (2)	\$ 12,671,004.50
Proposed Maximum Aggregate Offering Price			\$ 12,671,004.50
<b>Registration Fee</b>			<b>\$ 1,275.98</b>

**EXPLANATORY NOTE**

This Registration Statement on Form S-8 is being filed for the purpose of registering an additional 806,300 shares of Common Stock of Aclaris Therapeutics, Inc. to be issued pursuant to the 2015 EIP.

**PART II**

**ITEM 3. INCORPORATION OF DOCUMENTS BY REFERENCE**

The contents of the earlier registration statement relating to the 2015 EIP, previously filed with the Securities and Exchange Commission on October 15, 2015 (File No. 333-207434) are incorporated herein by reference and made a part of this Registration Statement.

**ITEM 8. EXHIBITS**

<b>Exhibit Number</b>	<b>Description</b>
4.1 (1)	Amended and Restated Certificate of Incorporation of the Registrant.
4.2 (2)	Amended and Restated Bylaws of the Registrant.
4.3 (3)	Specimen stock certificate evidencing shares of the Registrant's Common Stock.
4.4 (4)	2015 Equity Incentive Plan.
4.5 (5)	Form of Stock Option Grant Notice and Stock Option Agreement under 2015 Equity Incentive Plan.
4.6 (6)	Form of Restricted Stock Unit Grant Notice and Restricted Stock Unit Agreement under 2015 Equity Incentive Plan.
5.1	Opinion of Cooley LLP.
23.1	Consent of PricewaterhouseCoopers 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. 001-37581), filed with the Commission on October 13, 2015, and incorporated by reference herein.

(2) Previously filed as Exhibit 3.2 to the Registrant's Current Report on Form 8-K (File No. 001-37581), filed with the Commission on October 13, 2015, and incorporated by reference herein.

(3) Previously filed as Exhibit 4.1 to Amendment No. 2 to the Registrant's Registration Statement on Form S-1 (File No. 333-206437), filed with the Commission on September 25, 2015, and incorporated by reference herein.

(4) Previously filed as Exhibit 4.6 to Registrant's Registration Statement on Form S-8 (File No. 333-207434), filed with the Commission on October 15, 2015, and incorporated by reference herein.

(5) Previously filed as Exhibit 10.10 to Amendment No. 2 to the Registrant's Registration Statement on Form S-1 (File No. 333-206437), filed with the Commission on September 25, 2015, and incorporated by reference herein.

(6) Previously filed as Exhibit 10.11 to Amendment No. 2 to the Registrant's Registration Statement on Form S-1 (File No. 333-206437), filed with the Commission on September 25, 2015, 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 Malvern, Commonwealth of Pennsylvania, on this 24<sup>th</sup> day of March, 2016.

**Aclaris Therapeutics, Inc.**

By: /s/ Neal Walker  
Neal Walker  
*President and Chief Executive Officer*

**POWER OF ATTORNEY**

**Know All Persons By These Presents**, that each person whose signature appears below constitutes and appoints Neal Walker, Kamil Ali-Jackson, Frank Ruffo and Brent B. Siler, and each or any one of them, his true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him and in his 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 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
/s/ Neal Walker _____ Neal Walker	President, Chief Executive Officer and Director <i>(Principal Executive Officer)</i>	March 24, 2016
/s/ Frank Ruffo _____ Frank Ruffo	Chief Financial Officer <i>(Principal Financial Officer and Principal Accounting Officer)</i>	March 24, 2016
/s/ Stephen A. Tullman _____ Stephen A. Tullman	Chairman of the Board of Directors	March 24, 2016
/s/ Albert Cha, M.D., Ph.D. _____ Albert Cha, M.D., Ph.D.	Director	March 24, 2016
/s/ Richard A. Bierly _____ Richard A. Bierly	Director	March 24, 2016
/s/ Christopher Molineaux _____ Christopher Molineaux	Director	March 24, 2016
/s/ Anand Mehra, M.D. _____ Anand Mehra, M.D.	Director	March 24, 2016

## EXHIBIT INDEX

<b>Exhibit Number</b>	<b>Description</b>
4.1 (1)	Amended and Restated Certificate of Incorporation of the Registrant.
4.2 (2)	Amended and Restated Bylaws of the Registrant.
4.3 (3)	Specimen stock certificate evidencing shares of the Registrant's Common Stock.
4.4 (4)	2015 Equity Incentive Plan.
4.5 (5)	Form of Stock Option Grant Notice and Stock Option Agreement under 2015 Equity Incentive Plan.
4.6 (6)	Form of Restricted Stock Unit Grant Notice and Restricted Stock Unit Agreement under 2015 Equity Incentive Plan.
5.1	Opinion of Cooley LLP.
23.1	Consent of PricewaterhouseCoopers 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. 001-37581), filed with the Commission on October 13, 2015, and incorporated by reference herein.

(2) Previously filed as Exhibit 3.2 to the Registrant's Current Report on Form 8-K (File No. 001-37581), filed with the Commission on October 13, 2015, and incorporated by reference herein.

(3) Previously filed as Exhibit 4.1 to Amendment No. 2 to the Registrant's Registration Statement on Form S-1 (File No. 333-206437), filed with the Commission on September 25, 2015, and incorporated by reference herein.

(4) Previously filed as Exhibit 4.6 to Registrant's Registration Statement on Form S-8 (File No. 333-207434), filed with the Commission on October 15, 2015, and incorporated by reference herein.

(5) Previously filed as Exhibit 10.10 to Amendment No. 2 to the Registrant's Registration Statement on Form S-1 (File No. 333-206437), filed with the Commission on September 25, 2015, and incorporated by reference herein.

(6) Previously filed as Exhibit 10.11 to Amendment No. 2 to the Registrant's Registration Statement on Form S-1 (File No. 333-206437), filed with the Commission on September 25, 2015, and incorporated by reference herein.

Brian F. Leaf  
T: +1 703 456 8053  
bleaf@cooley.com

March 24, 2016

Aclaris Therapeutics, Inc.  
101 Lindenwood Drive, Suite 400  
Malvern, PA 19355

Ladies and Gentlemen:

You have requested our opinion, as counsel to Aclaris Therapeutics, Inc., a Delaware corporation (the "**Company**"), in connection with the filing by the Company of a Registration Statement on Form S-8 (the "**Registration Statement**") with the Securities and Exchange Commission covering the offering of up to 806,300 shares (the "**Shares**") of the Company's Common Stock, par value \$0.00001 per share (the "**Common Stock**"), pursuant to the Company's 2015 Equity Incentive Plan (the "**2015 Plan**").

In connection with this opinion, we have examined and relied upon (a) the Registration Statement and the related prospectus, (b) the Company's Amended and Restated Certificate of Incorporation and the Company's Amended and Restated Bylaws, each as currently in effect, (c) the 2015 Plan, and (d) the originals or copies certified to our satisfaction of such records, documents, certificates, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below. We have assumed the genuineness and authenticity of all documents submitted to us as originals, the conformity to originals of all documents submitted to us as copies, the accuracy, completeness and authenticity of certificates of public officials; and the due authorization, execution and delivery of all documents by all persons other than the Company where authorization, execution and delivery are prerequisites to the effectiveness of such documents. As to certain factual matters, we have relied upon a certificate of an officer of the Company and have not sought independently to verify such matters.

Our opinion is expressed only with respect to the General Corporation Law of the State of Delaware. We express no opinion as to whether the laws of any particular jurisdiction other than those identified above are applicable to the subject matter of this opinion. We are not rendering any opinion as to compliance with any federal or state law, rule or regulation relating to securities, or to the sale or issuance thereof.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that the Shares, when sold and issued in accordance with the 2015 Plan, the Registration Statement and the related prospectuses, will be validly issued, fully paid and nonassessable (except as to shares issued pursuant to certain deferred payment arrangements, which will be fully paid and nonassessable when such deferred payments are made in full).

We consent to the filing of this opinion as an exhibit to the Registration Statement.

Sincerely,

Cooley LLP

By: /s/ Brian F. Leaf  
Brian F. Leaf

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated March 23, 2016, relating to the financial statements, which appears in Aclaris Therapeutics, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2015.

/s/ PricewaterhouseCoopers LLP

Philadelphia, Pennsylvania  
March 24, 2016

---