UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-3

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

ACLARIS THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Delaware46-0571712(State or other jurisdiction of incorporation or organization)(I.R.S. Employer Identification Number)

640 Lee Road, Suite 200 Wayne, PA 19087 (484) 324-7933

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

Neal Walker
President and Chief Executive Officer
Aclaris Therapeutics, Inc.
640 Lee Road, Suite 200
Wayne, PA 19087
(484) 324-7933

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

Copies to:

Brian F. Leaf Brent B. Siler Mark Ballantyne Cooley LLP 11951 Freedom Drive Reston, VA 20190 (703) 456-8000 Kamil Ali-Jackson Chief Legal Officer Aclaris Therapeutics, Inc. 640 Lee Road, Suite 200 Wayne, PA 19087 (484) 324-7933

From time to time after the effective date of this Registration Statement

(Approximate date of commencement of proposed sale to the public)

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. o

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, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. x

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, x File No. 333-214384

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. o

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. o

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b—2 of the Exchange Act.

Large accelerated filer o Accelerated filer x

Non-accelerated filer o Smaller reporting company o

Emerging growth company x

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. x

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Proposed Maximum Aggregate Offering Price(1)	Amount of Registration Fee(2)
Common Stock, \$0.00001 par value per share	\$ 17,815,540	\$ 2,159.24

- (1) The registrant previously registered securities at an aggregate offering price not to exceed \$300,000,000 on a Registration Statement on Form S-3 (File No. 333-214384), which was initially filed by the registrant on November 2, 2016 and declared effective on November 14, 2016 (the "Prior Registration Statement"). In accordance with Rule 462(b) under the Securities Act of 1933, as amended, an additional amount of securities having a proposed maximum aggregate offering price of \$17,815,540 is hereby registered, which includes shares issuable upon the exercise of the underwriters' option to purchase additional shares, representing no more than 20% of the maximum aggregate offering price of unsold securities under the Prior Registration Statement. In no event will the maximum aggregate offering price of all securities issued pursuant to this Registration Statement and the Prior Registration Statement exceed that registered under such Registration Statements.
- (2) Calculated pursuant to Rule 457(o) under the Securities Act.

This Registration Statement shall become effective upon filing in accordance with Rule 462(b) under the Securities Act of 1933, as amended.

EXPLANATORY NOTE AND INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

This Registration Statement is being filed with the Securities and Exchange Commission pursuant to Rule 462(b) under the Securities Act of 1933, as amended. This Registration Statement incorporates by reference the contents of, including any and all prospectus supplements and all amendments and exhibits thereto and all information incorporated by reference therein, the Registration Statement on Form S-3 (File No. 333-214384), which was initially filed by the registrant on November 2, 2016 and declared effective on November 14, 2016, and is being filed solely for the purpose of registering an additional \$17,815,540 of the Company's securities.

The required opinion and consents are listed on the Exhibit Index attached hereto and filed herewith.

UNDERTAKING

The registrant hereby certifies to the Securities and Exchange Commission that (i) it has instructed its bank to pay the Securities and Exchange Commission the filing fee set forth in the cover page of this registration statement by wire transfer of such amount to the Securities and Exchange Commission's account at U.S. Bank as soon as practicable (but no later than the close of business on October 18, 2018); (ii) it will not revoke such instruction; (iii) it has sufficient funds in the relevant account to cover the amount of such filing fee; and (iv) it will confirm receipt of such instructions by its bank during the bank's regular business hours no later than October 18, 2018.

EXHIBIT INDEX

Exhibit Number	Description			
5.1	Opinion of Cooley LLP.			
23.1	Consent of Independent Registered Public Accounting Firm.			
23.2	Consent of Cooley LLP (included in Exhibit 5.1).			
24.1	Power of Attorney (included in registrant's Registration Statement on Form S-3 (File No. 333-214384) initially filed with the Securities and Exchange Commission on November 2, 2016 and incorporated herein by reference).			
	3			

SIGNATURES

Pursuant to the requirements of the Securities Act, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Wayne, Commonwealth of Pennsylvania, on the 17th day of October, 2018.

ACLARIS THERAPEUTICS, INC.

By: /s/ Neal Walker

Neal Walker

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/ Neal Walker Neal Walker	President, Chief Executive Officer and Director (Principal Executive Officer)	October 17, 2018
/s/ Frank Ruffo Frank Ruffo	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	October 17, 2018
Flank Rullo		
*	Chairman of the Board of Directors	October 17, 2018
Stephen A. Tullman		
*	Director	October 17, 2018
Christopher Molineaux		
*	Director	October 17, 2018
Anand Mehra, M.D.		
*	Director	October 17, 2018
William Humphries		
	Director	
Andrew Powell		
	Director	
Bryan Reasons		
/s/ Andrew Schiff	Director	October 17, 2018
Andrew Schiff		
*Pursuant to power of attorney		
By: /s/ Neal Walker		
Neal Walker		
Attorney-in-fact		
	4	



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

October 17, 2018

Aclaris Therapeutics, Inc. 640 Lee Road, Suite 200 Wayne, Pennsylvania 19087

Ladies and Gentlemen:

We have acted as counsel to Aclaris Therapeutics, Inc., a Delaware corporation (the "*Company*"), in connection with the Registration Statement on Form S-3 (the "*Registration Statement*") filed by the Company pursuant to Rule 462(b) of Regulation C promulgated under the Securities Act of 1933, as amended (the "*Securities Act*") relating to an aggregate of \$17,815,540 of shares of common stock, par value \$0.00001 per share (the "*Common Stock*") of the Company (the "*Shares*"). The Registration Statement incorporates by reference the registration statement on Form S-3 (No. 333- 214384), which was declared effective on November 14, 2016 (the "*Prior Registration Statement*"), including the prospectus which forms a part of the Prior Registration Statement (the "*Prospectus*"). The Prospectus provides that it will be supplemented in the future by one or more prospectus supplements (each a "*Prospectus Supplement*").

The Shares are being registered for offer and sale from time to time pursuant to either or both of Rule 415 and Rule 462(b) under the Securities Act.

In connection with this opinion, we have examined and relied upon originals, or copies certified to our satisfaction, of such records, documents, certificates, opinions, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below. As to certain factual matters, we have relied upon certificates of the officers of the Company and have not sought to independently verify such matters.

In rendering this opinion, we have assumed: (i) the genuineness and authenticity of all signatures on original documents; (ii) the authenticity of all documents submitted to us as originals; (iii) the conformity to originals of all documents submitted to us as copies; (iv) the accuracy, completeness and authenticity of certificates of public officials; and (v) the due authorization, execution and delivery of all documents where authorization, execution and delivery are prerequisites to the effectiveness of such documents. We have further assumed that, at the time of issuance and sale, a sufficient number of shares of Common Stock is authorized and reserved or available for issuance and that the consideration for the issuance and sale of the Shares is in an amount that is not less than the par value of the Common Stock.

Our opinion herein is expressed with respect to the General Corporation Law of the State of Delaware. Our opinion is based on these laws as in effect on the date hereof. We express no opinion as to whether the laws of any jurisdiction are applicable to the subject matter hereof. We are not rendering any opinion as to compliance with any federal or state antifraud law, rule or regulation relating to securities, or to the sale or issuance thereof.

ONE FREEDOM SQUARE, RESTON TOWN CENTER, 11951 FREEDOM DRIVE, RESTON, VA 20190-5640 T: (703) 456-8000 F: (703) 456-8100 WWW.COOLEY.COM

On the basis of the foregoing and in reliance thereon, and subject to the qualifications herein stated, we are of the opinion that, with respect to the Shares offered under the Registration Statement, provided that: (i) the Registration Statement and any required post-effective amendment thereto have all become effective under the Securities Act and the Prospectus and any and all Prospectus Supplement(s) required by applicable laws have been delivered and filed as required by such laws; (ii) if the Shares are to be sold pursuant to a purchase, underwriting or similar agreement, such agreement has been duly authorized, executed and delivered by the Company and the other parties thereto and has become a valid and binding agreement of the Company; (iii) the Company's board of directors, including any appropriate committee appointed thereby, and appropriate officers of the Company have taken all necessary corporate action to approve the issuance of the Shares and related matters; (iv) the issuance and sale of the Shares do not violate any applicable law or the operative certificate of incorporation or bylaws of the Company or result in a default under or breach of any agreement or instrument binding upon the Company and comply with any requirement or restriction imposed by any court or governmental body having jurisdiction over the Company; and (v) the certificates for the Shares, if any, have been duly executed by the Company, countersigned by the transfer agent therefor and duly delivered to the purchasers thereof against payment therefor, then the Shares, when issued and sold as contemplated in the Registration Statement, the Prospectus and the related Prospectus Supplement(s), and in accordance with any duly authorized, executed and delivered purchase, underwriting or similar agreement, will be duly authorized and validly issued, and the Shares will be fully paid and nonassessable.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement and to the reference to our firm under the caption "Legal Matters" in the Prospectus and any Prospectus Supplement included in the Registration Statement. This opinion is expressed as of the date hereof, and we disclaim any undertaking to advise you of any subsequent changes in the facts stated or assumed herein or of any subsequent changes in applicable law.

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-3 of Aclaris Therapeutics, Inc. of our report dated March 12, 2018 relating to the financial statements, which appears in Aclaris Therapeutics, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2017. We also consent to the reference to us under the heading "Experts" in such Registration Statement.

/s/ PricewaterhouseCoopers LLP Philadelphia, PA October 17, 2018