1,081,082 Shares



Aclaris Therapeutics, Inc.

Common Stock

This prospectus relates to the resale by the selling stockholders identified in this prospectus of up to 1,081,082 shares of our common stock that we sold to the selling stockholders in connection with a private placement completed on June 2, 2016. We will not receive any proceeds from the sale of these shares by the selling stockholders.

We are not selling any shares of common stock and will not receive any proceeds from the sale of the shares under this prospectus.

We have agreed to bear all of the expenses incurred in connection with the registration of these shares. The selling stockholders will pay or assume brokerage commissions and similar charges, if any, incurred for the sale of shares of our common stock.

The selling stockholders identified in this prospectus, or their pledgees, donees, transferees or other successors-in-interest, may offer the shares from time to time through public or private transactions at prevailing market prices, at prices related to prevailing market prices or at privately negotiated prices. For additional information on the methods of sale that may be used by the selling stockholders, see the section entitled "Plan of Distribution" beginning on page 11. For a list of the selling stockholders, see the section entitled "Selling Stockholders" beginning on page 8.

We may amend or supplement this prospectus from time to time by filing amendments or supplements as required. You should read the entire prospectus and any amendments or supplements carefully before you make your investment decision.

Our common stock is traded on the NASDAQ Global Select Market under the symbol "ACRS." On June 27, 2016, the closing sale price of our common stock on the NASDAQ Global Select Market was \$17.68 per share. You are urged to obtain current market quotations for the common stock.

We are an "emerging growth company" as defined by the Jumpstart Our Business Startups Act of 2012 and, as such, we have elected to comply with certain reduced public company reporting requirements for this prospectus and future filings. Please see "Prospectus Summary—Implications of Being an Emerging Growth Company."

Investing in our common stock involves a high degree of risk. Please read "<u>Risk Factors</u>" beginning on page 5 of this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

Prospectus dated June 28, 2016.

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You should rely only on the information contained in this prospectus, any supplement to this prospectus or in any free writing prospectus filed with the Securities and Exchange Commission. Neither we nor the selling stockholders have authorized anyone to provide you with additional information or information different from that contained in this prospectus filed with the Securities and Exchange Commission. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. The selling stockholders are offering to sell, and seeking offers to buy, our common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or any sale of shares of our common stock. Our business, financial condition, results of operations and prospects may have changed since that date.

For investors outside the United States: Neither we nor the selling stockholders have done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of common stock and the distribution of this prospectus outside the United States.

To the extent there is a conflict between the information contained in this prospectus, on the one hand, and the information contained in any document incorporated by reference filed with the Securities and Exchange Commission before the date of this prospectus, on the other hand, you should rely on the information in this prospectus. If any statement in a document incorporated by reference is inconsistent with a statement in another document incorporated by reference having a later date, the statement in the document having the later date modifies or supersedes the earlier statement.

PROSPECTUS SUMMARY

The following summary highlights selected information contained or incorporated by reference elsewhere in this prospectus and does not contain all of the information that you should consider in making your investment decision. Before investing in our common stock, you should carefully read this entire prospectus, including our financial statements and the related notes and other documents incorporated by reference in this prospectus, as well as the information under the caption "Risk Factors" herein and under similar headings in the other documents that are incorporated by reference into this prospectus. Unless the context otherwise requires, we use the terms "Aclaris," "company," "we," "us" and "our" in this prospectus to refer to Aclaris Therapeutics, Inc. and, where appropriate, our subsidiaries.

Business Overview

We are a clinical-stage specialty pharmaceutical company focused on identifying, developing and commercializing innovative and differentiated drugs to address significant unmet needs in dermatology. Our lead drug candidate, A-101 Topical Solution, is a proprietary high-concentration hydrogen peroxide topical solution that we are developing as a prescription treatment for seborrheic keratosis, or SK, a common non-malignant skin tumor. We have completed three Phase 2 clinical trials of A-101 in over 300 patients with SK. In these trials, following one or two applications of A-101, we observed clinically relevant and statistically significant improvements in clearing SK lesions on the face, trunk and extremities of the body. In the first quarter of 2016, we initiated two multi-center, double-blind Phase 3 clinical trials and one open label Phase 3 clinical trial of A-101 in patients with SK. If the results of these trials are favorable, we plan to submit a New Drug Application for A-101 for the treatment of SK to the U.S. Food and Drug Administration in the fourth quarter of 2016. We also intend to develop A-101 as a prescription treatment for common warts, also known as verruca vulgaris, and A-102, a proprietary gel dosage form of hydrogen peroxide, as a prescription treatment for SK and common warts. In the fourth quarter of 2015, we initiated a Phase 2 clinical trial to evaluate A-101 for the treatment of common warts.

We have also in-licensed the exclusive, worldwide rights to inhibitors of the Janus kinase, or JAK, family of enzymes, for specified dermatological conditions. We plan to develop these JAK inhibitors, ATI-50001 and ATI-50002, as potential treatments for hair loss associated with an autoimmune skin disease known as alopecia areata, and potentially for other dermatological conditions, including androgenetic alopecia, also known as male or female pattern baldness, and vitiligo. We intend to in-license or acquire additional drug candidates for other dermatological conditions to build a fully integrated dermatology company.

Corporate Information

We were incorporated under the laws of the State of Delaware in July 2012. Our principal executive offices are located at 101 Lindenwood Drive, Suite 400, Malvern, Pennsylvania 19355. Our telephone number is (484) 324-7933. Our common stock is listed on the NASDAQ Global Select Market under the symbol "ACRS."

Our internet website address is www.aclaristx.com. The information contained on our website is not incorporated by reference into this prospectus, and you should not consider any information contained on, or that can be accessed through, our website as part of this prospectus or in deciding whether to purchase our common stock.

Implications of Being an Emerging Growth Company

We qualify as an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. An emerging growth company may take advantage of relief from some of the reporting requirements and other burdens that are otherwise applicable generally to public companies. These provisions include:

- being permitted to provide only two years of audited financial statements, in addition to any required unaudited interim financial statements, with correspondingly reduced "Management's Discussion and Analysis of Financial Condition and Results of Operations" disclosure;
- not being required to comply with the auditor attestation requirements in the assessment of our internal control over financial reporting;
- not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements;
- reduced disclosure obligations regarding executive compensation in our periodic reports, proxy statements and registration statements; and
- \cdot not being required to hold a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

We may take advantage of these reporting exemptions until we are no longer an emerging growth company. We will remain an emerging growth company until the earlier of (1) December 31, 2020, (2) the last day of the fiscal year in which we have total annual gross revenue of at least \$1.0 billion, (3) the last day of the fiscal year in which we are deemed to be a large accelerated filer, which means the market value of our common stock that is held by non-affiliates exceeds \$700 million as of the prior June 30th and (4) any date on which we have issued more than \$1.0 billion in non-convertible debt during the prior three-year period. We may choose to take advantage of some but not all of these reduced burdens. For example, we have taken advantage of the reduced reporting requirements with respect to disclosure regarding our executive compensation arrangements, have presented only two years of audited financial statements and only two years of related "Management's Discussion and Analysis of Financial Condition and Results of Operations" disclosure in our public filings, and have taken advantage of the exemption from auditor attestation on the effectiveness of our internal control over financial reporting. To the extent that we take advantage of these reduced burdens, the information that we provide stockholders may be different than you might obtain from other public companies in which you hold equity interests.

In addition, under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have irrevocably elected not to avail ourselves of this exemption from new or revised accounting standards and, therefore, we will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

THE OFFERING

Common stock offered by us	1,081,082 shares
Common stock outstanding	21,403,005 shares
Use of proceeds	We will not receive any proceeds from the sale of shares in this offering. See "Use of Proceeds."
Risk factors	See "Risk Factors" beginning on page 5 and the other information included in this prospectus for a discussion of factors you should carefully consider before deciding to invest in our common stock.
NASDAQ Global Select Market symbol	ACRS

The number of shares of our common stock outstanding is based on 21,403,005 shares of our common stock outstanding as of June 10, 2016 and excludes the following:

· 1,886,891 shares of common stock issuable upon the exercise of options outstanding as of June 10, 2016, at a weighted average exercise price of \$13.85 per share;

· 85,000 shares of common stock subject to restricted stock units outstanding as of June 10, 2016; and

 \cdot 1,613,805 shares of common stock reserved for future issuance under our 2015 equity incentive plan, plus any additional shares of our common stock that may become available under our 2015 equity incentive plan.

Unless otherwise indicated, all information in this prospectus assumes no exercise of outstanding options after June 10, 2016.

SUPPLEMENTARY FINANCIAL INFORMATION

Below is selected quarterly financial data for the three months ended March 31, 2016, which has been derived from our unaudited condensed consolidated financial statements incorporated by reference in this prospectus. For selected quarterly financial data for each quarter of the years ended December 31, 2015 and 2014, see Note 15 to our audited consolidated financial statements incorporated by reference in this prospectus. The following table should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations," and the consolidated financial statements and related notes to those statements incorporated by reference in this prospectus.

	Three Months	Three Months Ended March 31, 2016	
	(in thousands,	except for per share data)	
Revenue	\$	—	
Operating expenses		13,139	
Other income, net		100	
Net loss	\$	(13,039)	
Net loss attributable to common stockholders	\$	(13,039)	
Net loss per share attributable to common stockholders, basic and diluted	\$	(0.65)	

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should consider carefully the following risks and uncertainties as well as the risks and uncertainties described in the section entitled "Risk Factors" contained in our Annual Report on Form 10-K for the year ended December 31, 2015, as filed with the SEC on March 23, 2016, and in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2016, as filed with the SEC on May 11, 2016, which descriptions are incorporated in this prospectus by reference in their entirety, as well as in any prospectus supplement hereto. These risks and uncertainties are not the only risks and uncertainties we face. Additional risks and uncertainties not currently known to us, or that we currently view as immaterial, may also impair our business. If any of the risks or uncertainties described in our SEC filings or any additional risks and uncertainties actually occur, our business, financial condition, results of operations and cash flow could be materially and adversely affected. In that case, the trading price of our common stock could decline and you might lose all or part of your investment.

Risks Related to this Offering

Sales of shares issued in this offering may cause the market price of our shares to decline.

On June 2, 2016, we issued and sold 1,081,082 shares of our common stock in connection with a private placement. We have agreed to register for resale with the SEC such shares of common stock. The registration statement of which this prospectus forms a part has been filed to satisfy this obligation. Upon the effectiveness of the registration statement, the 1,081,082 shares we sold in the private placement may be freely sold in the open market. The sale of a significant amount of these shares of common stock in the open market, or the perception that these sales may occur, could cause the market price of our common stock to decline or become highly volatile.

We may have to pay liquidated damages to the selling stockholders, which would increase our expenses and reduce our cash resources.

In connection with the private placement, we entered into a registration rights agreement. Under the terms of the registration rights agreement, subject to certain limited exceptions, if the registration statement of which this prospectus forms a part has not been declared effective within the time periods specified in the registration rights agreement or we otherwise fail to comply with certain provisions set forth in the registration rights agreement, we will be required to pay the investors, as liquidated damages, 1.0% of the amount invested for each 30-day period (or a pro rata portion thereof) during which such failure continues until the shares are sold or can be sold without restriction under Rule 144 promulgated under the Securities Act of 1933, as amended, or the Securities Act. There can be no assurance that the registration statement of which this prospectus forms a part will be declared effective by the SEC or will remain effective for the time periods necessary to avoid payment of liquidated damages. Any payment of liquidated damages would increase our expenses, reduce our cash resources and may limit or preclude us from advancing our product candidates through clinical trials or otherwise growing our business.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the information that we incorporate by reference, contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 that involve substantial risks and uncertainties. All statements other than statements of historical facts contained in this prospectus, including statements regarding our future operating results and financial position, business strategy, and plans and objectives of management for future operations, are forward-looking statements. In many cases, you can identify forward-looking statements by terms such as "may," "should," "expects," "plans," "anticipates," "could," "intends," "target," "projects," "contemplates," "believes," "estimates," "predicts," "potential," or "continue" or the negative of these terms or other similar expressions.

The forward-looking statements contained in this prospectus reflect our views as of the date of this prospectus about future events and are subject to risks, uncertainties, assumptions, and changes in circumstances that may cause our actual results, performance, or achievements to differ significantly from those expressed or implied in any forward-looking statement. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future events, results, performance, or achievements. A number of important factors could cause actual results to differ materially from those indicated by the forward-looking statements, including, without limitation, those factors described in "Risk Factors." Except as required by law, after the date of this prospectus, we are under no duty to update or revise any of the forward-looking statements contained or incorporated by reference herein, whether as a result of new information, future events or otherwise.

You should read this prospectus, including the information that we incorporate by reference, completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

USE OF PROCEEDS

We are filing the registration statement of which this prospectus forms a part to permit holders of the shares of our common stock described in the section entitled "Selling Stockholders" to resell such shares of common stock. We will not receive any proceeds from the resale of any shares offered by this prospectus by the selling stockholders.

PRICE RANGE OF COMMON STOCK

Our common stock commenced trading on The NASDAQ Global Select Market under the symbol "ACRS" on October 7, 2015. Prior to our initial public offering, there was no public market for our common stock. The following table sets forth for the periods indicated the high and low sales prices of our common stock as reported on The NASDAQ Global Select Market.

	 High		Low	
Year ending December 31, 2016				
First Quarter	\$ 27.93	\$	14.12	
Second Quarter (through June 27, 2016)	\$ 23.58	\$	16.86	
Year ended December 31, 2015				
Fourth Quarter (beginning October 7, 2015)	\$ 33.88	\$	10.99	

On June 27, 2016, the last reported sale price of our common stock was \$17.68 per share. As of June 27, 2016, there were approximately 62 holders of record of our common stock.

DIVIDEND POLICY

We have never declared or paid any dividends on our common stock. We anticipate that we will retain all of our future earnings, if any, for use in the operation and expansion of our business and do not anticipate paying cash dividends in the foreseeable future.



SELLING STOCKHOLDERS

On June 2, 2016, pursuant to a securities purchase agreement with certain accredited investors dated May 27, 2016, we sold in a private placement 1,081,082 shares of our common stock at a price per share of \$18.50. The table below sets forth, to our knowledge, information about the selling stockholders as of June 10, 2016.

We do not know when or in what amounts the selling stockholders may offer shares for sale. The selling stockholders might not sell any or all of the shares registered pursuant to the registration statement of which this prospectus forms a part. Because the selling stockholders may offer all or some of the shares pursuant to the registration statement of which this prospectus forms a part and because there are currently no agreements or understandings with respect to the sale of any shares, we cannot estimate the number of shares that will be held by the selling stockholders after completion of this offering. However, for purposes of this table, we have assumed that, after completion of this offering, none of the shares covered by this prospectus will be held by the selling stockholders.

Beneficial ownership is determined in accordance with the rules of the SEC and includes voting or investment power with respect to shares of our common stock. The number of shares of common stock beneficially owned prior to the offering for each selling stockholder includes (i) all shares of our common stock held by such selling stockholder prior to the private placement plus (ii) all shares of our common stock purchased by such selling stockholder pursuant to the private placement and being offered pursuant to the prospectus. The inclusion of any shares in this table does not constitute an admission of beneficial ownership by the person named below.

Throughout this prospectus, when we refer to the shares of our common stock being offered by this prospectus on behalf of the selling stockholders, we are referring to the shares of our common stock sold in the private placement, unless otherwise indicated.

The selling stockholders may have sold or transferred, in transactions exempt from the registration requirements of the Securities Act, some or all of their shares of common stock since the date on which the information in the table below is presented. Information about the selling stockholders may change over time.

Prior to Offering ⁽¹⁾			After Offering ⁽¹⁾		
Number of Shares Beneficially	Percentage of Shares Beneficially	Number of Shares	Number of Shares Beneficially	Percentage of Shares Beneficially	
Owned	Owned	Offered	Owned	Owned	
405,405	1.9%	405,405	_	%	
752 202	2 5	207 500	5 45 000		
/53,393	3.5	207,500	545,893	2.6	
147,893	*	42,500	105,393	*	
140,000	*	140,000	_	_	
	Number of Shares Beneficially Owned 405,405 753,393 147,893	Number of Shares Beneficially Owned Percentage of Shares Beneficially Owned 405,405 1.9% 753,393 3.5 147,893 *	Number of Shares Beneficially Owned Percentage of Shares Beneficially Owned Number of Shares Offered 405,405 1.9% 405,405 753,393 3.5 207,500 147,893 * 42,500	Number of Shares Percentage of Shares Number of Shares Number of Beneficially Owned Owned Offered Owned 405,405 1.9% 405,405 — 753,393 3.5 207,500 545,893 147,893 * 42,500 105,393	

	Prior to Offering ⁽¹⁾			After Offering ⁽¹⁾		
Name and Address	Number of Shares Beneficially Owned	Percentage of Shares Beneficially Owned	Number of Shares Offered	Number of Shares Beneficially Owned	Percentage of Shares Beneficially Owned	
Rock Springs Capital Master Fund LP ⁽⁵⁾ c/o Rock Springs Capital Management LP 650 S. Exeter St., Suite 1070 Baltimore, MD 21202	991,177	4.6	95,677	895,500	4.2	
Monashee Capital Master Fund LP ⁽⁶⁾ 125 High Street, 28th Floor Boston, MA 02180	60,000	*	60,000	_		
Sabby Healthcare Master Fund, Ltd. ⁽⁷⁾ 10 Mountainview Road, Suite 205 Upper Saddle River, NJ 07458	55,000	*	55,000	_	_	
CVI Investments, Inc. ⁽⁸⁾ 101 California Street, Suite 3250 San Francisco, CA 94111	55,000	*	55,000	_	_	
Mossrock Capital, LLC ⁽⁹⁾ 19 Martin Lane Englewood, CO 80113	43,451	*	20,000	23,451	*	

* Represents beneficial ownership of less than 1%.

- (1)This table is based upon information supplied by the selling stockholders, which information may not be accurate as of the date hereof. We have determined beneficial ownership in accordance with the rules of the SEC. Except as indicated by the footnotes below, we believe, based on the information furnished to us, that the selling stockholders named in the table above have sole voting and investment power with respect to all shares of common stock that they beneficially own, subject to applicable community property laws. Applicable percentages are based on 21,403,005 shares outstanding on June 10, 2016, adjusted as required by rules promulgated by the SEC.
- (2)These shares of common stock are owned directly by Aisling Capital IV LP ("Aisling") and held indirectly by Aisling Capital Partners IV, LP ("Aisling GP"), as general partner of Aisling, Aisling Capital Partners IV LLC ("Aisling Partners"), as general partner of Aisling GP, and each of the individual managing members of Aisling Partners. The individual managing members (collectively, the "Managers") of Aisling Partners are Dr. Andrew Schiff and Steve Elms. Aisling GP, Aisling Partners and the Managers share voting and dispositive power over the shares directly held by Aisling.
- (3)Cormorant Global Healthcare GP, LLC serves as the general partner of Cormorant Global Healthcare Master Fund, LP, and Cormorant Asset Management, LLC serves as the investment manager of Cormorant Global Healthcare Master Fund, LP. Cormorant Asset Management, LLC also serves as the special limited partner of CRMA SPV, L.P. Bihua Chen serves as the managing member of Cormorant Global Healthcare GP, LLC and Cormorant Asset Management, LLC. Cormorant Global Healthcare Master Fund, LP, Cormorant Global Healthcare GP, LLC, Cormorant Asset Management, LLC, and Ms. Chen share dispositive and voting power of the shares of common stock beneficially owned by Cormorant Global Healthcare Master Fund, LP. Cormorant Asset Management, LLC and Ms. Chen share dispositive and voting power of the shares of common stock beneficially owned by CRMA SPV, L.P.

(4)Eventide Healthcare & Life Sciences Fund is a registered investment company for which Eventide Asset Management, LLC acts as investment adviser. Eventide Asset Management, LLC has voting and investment power with respect to all of such shares.

(5)Rock Springs General Partner LLC is the general partner of Rock Springs Capital Master Fund LP and Graham McPhail is the managing director of Rock Springs General Partner LLC.

- (6)Monashee Investment Management LLC, as the general partner of Monashee Capital Master Fund LP, has voting and investment control over the shares held directly by Monashee Capital Master Fund LP.
- (7)Hal Mintz has voting and investment power over the shares held by Sabby Healthcare Master Fund, Ltd. Sabby Management, LLC serves as the investment manager of Sabby Healthcare Master Fund, Ltd., and Hal Mintz is the manager of Sabby Management, LLC.
- (8)Heights Capital Management, Inc., the authorized agent of CVI Investments, Inc. ("CVI"), has discretionary authority to vote and dispose of the shares held by CVI and may be deemed to be the beneficial owner of these shares. Martin Kobinger, in his capacity as Investment Manager of Heights Capital Management, Inc., may also be deemed to have investment discretion and voting power over the shares held by CVI.
- (9)Thomas Malley is the owner and general partner of Mossrock Capital, LLC and has voting and investment power over such shares.

PLAN OF DISTRIBUTION

We are registering the shares of common stock previously issued to permit the resale of these shares of common stock by the holders of the common stock from time to time after the date of this prospectus. We will not receive any of the proceeds from the sale by the selling stockholders of the shares of common stock. We will bear all fees and expenses incident to our obligation to register the shares of common stock, except that, if the shares of common stock are sold through underwriters or broker-dealers, the selling stockholders will be responsible for underwriting discounts or commissions or agent's commissions.

The selling stockholders may sell all or a portion of the shares of our common stock beneficially owned by them and offered hereby from time to time directly or through one or more underwriters, broker-dealers or agents. The shares of common stock may be sold in one or more transactions at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale, or at negotiated prices. These sales may be effected in transactions, which may involve crosses or block transactions,

- on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale;
- · in the over-the-counter market;
- · in transactions otherwise than on these exchanges or systems or in the over-the-counter market;
- · through the writing of options, whether such options are listed on an options exchange or otherwise;
- · ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- \cdot block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- · purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- · an exchange distribution in accordance with the rules of the applicable exchange;
- · privately negotiated transactions;
- short sales;
- · sales pursuant to Rule 144 of the Securities Act;
- · broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;
- · a combination of any such methods of sale; and
- · any other method permitted pursuant to applicable law.

If the selling stockholders effect such transactions by selling shares of our common stock to or through underwriters, brokerdealers or agents, such underwriters, broker-dealers or agents may receive commissions in the form of discounts, concessions or commissions from the selling stockholders or commissions from purchasers of the shares of our common stock for whom they may act as agent or to whom they may sell as principal (which discounts, concessions or commissions as to particular underwriters, broker-dealers or agents may be in excess of those customary in the types of transactions involved). In connection with sales of the shares of our common stock or otherwise, the selling stockholders may enter into hedging transactions with broker-dealers, which may in turn engage in short sales of the shares of our common stock in the course of hedging in positions they assume. The selling stockholders may also sell shares of our common stock short and deliver shares of our common stock covered by this prospectus to close out short positions and to return borrowed shares in connection with such short sales. The selling stockholders may also loan or pledge shares of our common stock to broker-dealers that in turn may sell such shares.



The selling stockholders may pledge or grant a security interest in some or all of the shares of our common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock from time to time pursuant to this prospectus or other applicable provisions of the Securities Act, amending, if necessary, the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus. The selling stockholders also may transfer and donate the shares of our common stock in other circumstances in which case the transferees, donees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

The selling stockholders and any broker-dealer participating in the distribution of the shares of our common stock may be deemed to be "underwriters" within the meaning of the Securities Act, and any commission paid, or any discounts or concessions allowed to, any such broker-dealer may be deemed to be underwriting commissions or discounts under the Securities Act. At the time a particular offering of the shares of our common stock is made, a prospectus supplement, if required, will be distributed which will set forth the aggregate amount of shares of our common stock being offered and the terms of the offering, including the name or names of any broker-dealers or agents, any discounts, commissions and other terms constituting compensation from the selling stockholders and any discounts, commissions allowed or reallowed or paid to broker-dealers.

Under the securities laws of some states, the shares of our common stock may be sold in such states only through registered or licensed brokers or dealers. In addition, in some states the shares of our common stock may not be sold unless such shares have been registered or qualified for sale in such state or an exemption from registration or qualification is available and is complied with.

There can be no assurance that any selling stockholder will sell any or all of the shares of our common stock registered pursuant to the registration statement, of which this prospectus forms a part.

The selling stockholders and any other person participating in such distribution will be subject to applicable provisions of the Exchange Act, and the rules and regulations thereunder, including, without limitation, Regulation M of the Exchange Act, which may limit the timing of purchases and sales of any of the shares of our common stock by the selling stockholders and any other participating person. Regulation M may also restrict the ability of any person engaged in the distribution of the shares of our common stock to engage in market-making activities with respect to the shares of our common stock. All of the foregoing may affect the marketability of the shares of our common stock and the ability of any person or entity to engage in market-making activities with respect to the shares or or entity to engage in market-making activities with respect to the shares or or entity to engage in market-making activities with respect to the shares or or entity to engage in market-making activities with respect to the shares or entity to engage in market-making activities with respect to the shares or entity to engage in market-making activities with respect to the shares or entity to engage in market-making activities with respect to the shares of our common stock.

We will pay all expenses of the registration of the shares of our common stock pursuant to the registration statement of which this prospectus forms a part, including, without limitation, SEC filing fees and expenses of compliance with state securities or "blue sky" laws; provided, however, that the selling stockholders will pay all underwriting discounts and selling commissions, if any. We will indemnify the selling stockholders against liabilities, including some liabilities under the Securities Act, or the selling stockholders will be entitled to contribution. We may be indemnified by the selling stockholders against civil liabilities, including liabilities under the Securities Act, that may arise from any written information furnished to us by the selling stockholders specifically for use in this prospectus or we may be entitled to contribution.

Once sold under the registration statement of which this prospectus forms a part, the shares of our common stock will be freely tradable in the hands of persons other than our affiliates.

LEGAL MATTERS

The validity of the shares of common stock being offered by this prospectus will be passed upon for us by Cooley LLP, Reston, Virginia.

EXPERTS

The financial statements incorporated in this prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2015 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

This prospectus is part of the registration statement on Form S-1 we filed with the SEC under the Securities Act and does not contain all the information set forth in the registration statement. Whenever a reference is made in this prospectus to any of our contracts, agreements or other documents, the reference may not be complete and you should refer to the exhibits that are a part of the registration statement or the exhibits to the reports or other documents incorporated by reference into this prospectus for a copy of such contract, agreement or other document. Because we are subject to the information and reporting requirements of the Exchange Act, we file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the internet at the SEC's website at http://www.sec.gov. You may also read and copy any document we file at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the Public Reference Room.

We maintain a website at www.aclaristx.com. Information found on, or accessible through, our website is not a part of, and is not incorporated into, this prospectus, and you should not consider it part of this prospectus.

INCORPORATION OF DOCUMENTS BY REFERENCE

The SEC allows us to "incorporate by reference" information from other documents that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus. Information in this prospectus supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus.

We incorporate by reference into this prospectus and the registration statement of which this prospectus form a part the information or documents listed below that we have filed with the SEC:

- our Annual Report on Form 10-K for the year ended December 31, 2015, filed on March 23, 2016 and amended on April 25, 2016;
- · our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2016, filed on May 11, 2016;
- · our Current Reports on Form 8-K filed on March 30, 2016, May 27, 2016 and June 2, 2016; and
- the description of our common stock contained in our Registration Statement on Form 8-A, filed on October 2, 2015, including any amendments or reports filed for the purposes of updating this description
- including any amendments or reports filed for the purposes of updating this description.

We will furnish without charge to you, on written or oral request, a copy of any or all of the documents incorporated by reference in this prospectus, including exhibits to these documents. You should direct any requests for documents to Aclaris Therapeutics, Inc., Attn: Kamil Ali-Jackson, Chief Legal Officer, 101 Lindenwood Drive, Suite 400, Malvern, PA 19355; telephone: (484) 324-7933.

You also may access these filings on our website at www.aclaristx.com. We do not incorporate the information on our website into this prospectus or any supplement to this prospectus and you should not consider any information on, or that can be accessed through, our website as part of this prospectus or any supplement to this prospectus (other than those filings with the SEC that we specifically incorporate by reference into this prospectus or any supplement to this prospectus).

Any statement contained in a document incorporated or deemed to be incorporated by reference in this prospectus will be deemed modified, superseded or replaced for purposes of this prospectus to the extent that a statement contained in this prospectus modifies, supersedes or replaces such statement.



1,081,082 Shares



Aclaris Therapeutics, Inc.

Common Stock

PROSPECTUS

June 28, 2016