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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, DC 20549**

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**FORM 8-K**

**CURRENT REPORT  
Pursuant to Section 13 or 15(d) of  
The Securities Exchange Act of 1934**

**Date of Report (Date of earliest event reported): March 18, 2019**

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**Aclaris Therapeutics, Inc.**

(Exact name of registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction of incorporation)

**001-37581**  
(Commission File Number)

**46-0571712**  
(IRS Employer  
Identification No.)

**640 Lee Road, Suite 200  
Wayne, PA 19087**  
(Address of principal executive offices, including zip code)

**(484) 324-7933**  
(Registrant's telephone number, including area code)

**N/A**  
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth Company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company

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 13(a) of the Exchange Act.

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**Item 2.02 Results of Operations and Financial Condition.**

On March 18, 2019, Aclaris Therapeutics, Inc. (the “**Registrant**”) issued a press release announcing its financial results for the quarter and year ended December 31, 2018, as well as information regarding a conference call to discuss these financial results and business updates. A copy of this press release is furnished herewith as Exhibit 99.1 to this Current Report and is incorporated herein by reference.

In accordance with General Instruction B.2. of Form 8-K, the information in this Item 2.02 and Exhibit 99.1 hereto shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”), or otherwise subject to the liability of that section, nor shall it be deemed incorporated by reference in any of the Registrant’s filings under the Securities Act of 1933, as amended (the “**Securities Act**”), or the Exchange Act, whether made before or after the date hereof, regardless of any incorporation language in such a filing, except as expressly set forth by specific reference in such a filing.

**Item 7.01 Regulation FD Disclosure.**

A copy of the presentation that will accompany the conference call is furnished herewith as Exhibit 99.2 to this Current Report on Form 8-K.

In accordance with General Instruction B.2. of Form 8-K, the information in this Item 7.01 and Exhibit 99.2 hereto shall not be deemed “filed” for purposes of Section 18 of the Exchange Act, or otherwise subject to the liability of that section, nor shall it be deemed incorporated by reference in any of the Registrant’s filings under the Securities Act or the Exchange Act, whether made before or after the date hereof, regardless of any incorporation language in such a filing, except as expressly set forth by specific reference in such a filing.

**Item 9.01 Financial Statements and Exhibits.**

**(d) Exhibits**

<u>Exhibit Number</u>	<u>Exhibit Description</u>
99.1	<a href="#">Press Release, dated March 18, 2019.</a>
99.2	<a href="#">Company Presentation.</a>

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

**ACLARIS THERAPEUTICS, INC.**

Date: March 18, 2019

By: /s/ Frank Ruffo  
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Frank Ruffo  
Chief Financial Officer

## Aclaris Therapeutics Reports Fourth Quarter and Full Year 2018 Financial Results and Provides Update on Clinical and Commercial Developments

- *Product Sales of \$3.9 Million for Fiscal Year 2018*
- *Initiates Financial Guidance for Full Year 2019*
- *Management to Host Conference Call at 8:00 AM ET today*

**Wayne, PA – March 18, 2019 (GLOBE NEWSWIRE)** – Aclaris Therapeutics, Inc. (NASDAQ: ACRS), a physician-led biopharmaceutical company focused on dermatological and immuno-inflammatory diseases, today announced financial results for the fourth quarter and full year 2018, and provided an update on its clinical development and commercial programs.

- In November 2018, Aclaris acquired the worldwide rights to RHOFADÉ® (oxymetazoline hydrochloride) cream, 1% from Allergan Sales, LLC.
- In December 2018, Aclaris began promoting RHOFADÉ, which is approved in the United States for the topical treatment of persistent facial erythema (redness) associated with rosacea in adults.
- In February 2019, at the annual National Sales Meeting, Aclaris appointed Jeff Wayne as interim Head of Commercial and officially relaunched RHOFADÉ.
- Today Aclaris is providing an update, including new photos, from AUATB-201 Topical, an open-label clinical trial in patients with eyebrow loss due to alopecia areata (AA), including patients with alopecia totalis or alopecia universalis.

“On the commercial side of the company, we made a change in leadership as we focus on the relaunch of RHOFADÉ in 2019. Our development stage pipeline continues to advance with multiple data read outs expected during the course of the year across both our JAK inhibitor and A-101 clinical programs. Finally, we look to move our first Confluence originated asset into the clinic in the second half of the year; a significant milestone given we acquired and integrated the team just 18 months ago. Given the anticipated data readouts, we expect 2019 to be a watershed year as we become a fully integrated biopharmaceutical company,” said Dr. Neal Walker, President and Chief Executive Officer of Aclaris.

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## Clinical Pipeline Update:

### · **A-101 45% Topical Solution:**

- Two pivotal Phase 3 trials, named THWART-1 and THWART-2, for the treatment of common warts are progressing as planned. THWART-2 has completed enrollment, and THWART-1 is expected to complete enrollment by the end of this month. These two trials will enroll a total of approximately 1,000 patients across both studies, and topline data are expected in the second half of 2019.
- An open-label safety extension trial investigating A-101 45% Topical Solution for the treatment of common warts is also ongoing; if the results of these trials are positive, NDA submission is expected in the first half of 2020.

### · **JAK Inhibitor Trials:**

- We have completed enrollment in all of the following JAK inhibitor trials:
    - § **AA-201 Topical** – This ongoing Phase 2 randomized, double-blinded, parallel-group, vehicle-controlled trial is evaluating the safety, efficacy and dose response of two concentrations of ATI-502, a topical JAK1/3 inhibitor, on the regrowth of hair in 129 patients with AA. Data are expected in the second quarter of 2019.
    - § **AGA-201 Topical** – This ongoing Phase 2 open-label clinical trial is evaluating the safety and efficacy of ATI-502, a topical JAK1/3 inhibitor, on the regrowth of hair in 31 patients with androgenetic alopecia (AGA), also known as male/female pattern hair loss. 6-month data are expected in the second quarter of 2019 and 12-month data are expected in the second half of 2019.
    - § **VITI-201 Topical** – This ongoing Phase 2 open-label clinical trial is evaluating the safety and efficacy of ATI-502, a topical JAK1/3 inhibitor, on the repigmentation of facial skin in 34 patients with vitiligo. 6-month interim data are expected in the second quarter of 2019 and 12-month data are expected in the second half of 2019.
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§ **AD-201 Topical** – This ongoing Phase 2 open-label clinical trial is evaluating the safety and efficacy of ATI-502, a topical JAK1/3 inhibitor, in 22 adult patients with moderate-to-severe atopic dermatitis (AD). Data are expected in mid-2019.

§ **AUAT-201 Oral** – This ongoing randomized, double-blinded, parallel-group, placebo-controlled trial is evaluating the safety, efficacy and dose response of three concentrations of ATI-501, an oral JAK 1/3 inhibitor, on the regrowth of hair in 87 patients with AA. Data are expected in the second half of 2019.

- **ATI-450 (MK-2 Inhibitor)** – We expect to submit an Investigational New Drug (IND) application for rheumatoid arthritis to the FDA in mid-2019. If the IND is allowed by the FDA, we expect to initiate a Phase 1 and Phase 2 trial in the second half of 2019.

**Recent Corporate Highlights:**

- Significant presence at 2019 Annual Academy of Dermatology (AAD) Annual Meeting to support the relaunch of RHOFADE. Aclaris also presented 6 posters including 2 oral presentations regarding the clinical results of ESKATA® for the treatment of raised seborrheic keratosis and A-101 45% topical solution for the treatment of common warts.
  - Aclaris received approval from the Swedish Medical Products Agency to market ESKATA® (hydrogen peroxide) cutaneous solution, 685 mg for the treatment in adults of seborrheic keratoses that are not pedunculated and have up to a maximum diameter of 15 mm each. Aclaris also has received approval to market the medicine in the United Kingdom, Iceland, and Belgium. Aclaris is seeking a commercial partner or partners to market the medicine as an aesthetic skin treatment in various European countries with the brand name ESKATA® in Finland, Iceland, Netherlands, Norway, Portugal, Spain, Sweden, Czech Republic, and Belgium, and the brand name ESKERIELE® in Austria, France, Germany, Ireland, Italy, and the United Kingdom.
  - Canadian partner Cipher Pharmaceuticals Inc. submitted a New Drug Submission for A-101 40% Topical Solution for the treatment of raised SKs, which was accepted for review by Health Canada in December 2018.
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**Commercial Update:**

- Jeff Wayne, Aclaris' Vice President of Business Development, was recently appointed as interim Head of Commercial. Mr. Wayne brings over 30 years of pharmaceutical experience with the majority spent in dermatology. During his career, he has held positions of increasing responsibility in sales, marketing, and general management with Galderma, Intendis, Promius Pharma (where he built, launched, and led the commercial organization), Onset Dermatologics, and LEO Pharma. He launched METROGEL® in both the United States and Canada and was responsible for the marketing of FINACEA® in the United States; two medications prescribed for the treatment of rosacea. In his role as Vice President, Business Development, he managed the RHOFADÉ transaction from the beginning, providing a seamless transition of leadership.
- Following our National Sales Meeting held mid-February, RHOFADÉ was officially relaunched and featured prominently at the Aclaris booth and throughout the convention venue at the 2019 AAD Annual Meeting.
- The Aclaris field sales team was realigned to optimize reach and call frequency on current and potential RHOFADÉ prescribers, as well as the top 10 ESKATA accounts in each territory.
  - Comparing the 4-week period ended March 8, 2019 to the immediately prior 4-week period, the IQVIA data showed an 8.4% increase in total prescriptions for RHOFADÉ.
  - Based on these early prescription trends, we believe the response to the RHOFADÉ message, which emphasizes the need to treat all rosacea patients with persistent facial erythema, appears positive.

**Financial Highlights*****Liquidity and Capital Resources***

As of December 31, 2018, Aclaris had aggregate cash, cash equivalents and marketable securities of \$168.0 million compared to \$208.9 million as of December 31, 2017. The \$30.9 million decrease during the year ended December 31, 2018 included:

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- Aggregate net proceeds of \$100.2 million from the sale of common stock in a follow-on public offering of common stock in October 2018;
- \$67.1 million of cash used to acquire the global rights to RHOFADÉ;
- \$29.9 million of cash, net of issuance costs, borrowed under the loan agreement with Oxford Finance LLC;
- \$1.4 million in property and equipment purchases; and
- Net loss of \$132.7 million, offset by \$9.4 million of net cash provided by working capital and \$21.9 million of non-cash stock-based compensation expense, depreciation and amortization.

Aclaris anticipates that its cash, cash equivalents and marketable securities as of December 31, 2018 will be sufficient to fund its operations into the fourth quarter of 2020, without giving effect to any potential new business development transactions or financing activities.

#### ***Fourth Quarter 2018 Financial Results***

- Net loss was \$38.6 million for the fourth quarter of 2018, compared to \$22.9 million for the fourth quarter of 2017.
  - Net revenues were \$3.7 million for the quarter ended December 31, 2018, which consisted of \$0.8 million of net ESKATA sales, \$1.1 million of net RHOFADÉ sales (December only), \$1.3 million of contract research revenues, and \$0.5 million of other revenue. This compared to \$1.0 million for the quarter ended December 31, 2017, all of which was contract research revenues. Cost of revenues was \$3.5 million for the quarter ended December 31, 2018, compared to \$0.8 million for the quarter ended December 31, 2017.
  - Total operating expenses for the fourth quarter of 2018 were \$39.2 million, compared to \$25.7 million for the fourth quarter of 2017.
    - Research and development expenses were \$19.5 million for the fourth quarter of 2018, compared to \$13.2 million for the fourth quarter of 2017. The increase of \$6.3 million was mainly the result of the continued growth of Aclaris' JAK inhibitor and common wart programs, as multiple Phase 2 trials of ATI-501 and ATI-502 and Phase 3 trials of A-101 45% were ongoing in the fourth quarter of 2018, as well as the increased headcount to support these programs.
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- Sales and marketing expenses were \$13.0 million for the fourth quarter of 2018, compared to \$6.6 million for the fourth quarter of 2017. The increase of \$6.4 million was the result of increases in direct marketing and professional fees, as well as other commercial and personnel expenses incurred to support the continued commercialization of ESKATA following its launch in May 2018.
- General and administrative expenses were \$6.7 million for the fourth quarter of 2018, compared to \$5.9 million for the fourth quarter of 2017. The increase was driven by headcount increases, and legal and business development costs related to the RHOFADÉ acquisition in the fourth quarter of 2018.

### ***Full Year 2018 Financial Results***

- Net loss was \$132.7 million for the year ended December 31, 2018, compared to \$68.5 million for the year ended December 31, 2017.
  - Net revenues were \$10.1 million for the year ended December 31, 2018, which consisted of \$2.8 million of net ESKATA sales, \$1.1 million of net RHOFADÉ sales (December only), \$4.7 million of contract research revenues, and \$1.5 million of other revenue. This compared to \$1.7 million for the year ended December 31, 2017, all of which was contract research revenues. Cost of revenues was \$6.9 million for the year ended December 31, 2018, compared to \$1.2 million for the year ended December 31, 2017.
  - Total operating expenses were \$138.7 million for the year ended December 31, 2018, compared to \$72.9 million for the year ended December 31, 2017. Net cash used in operating activities was \$100.8 million for the year ended December 31, 2018, compared to \$54.7 million for the year ended December 31, 2017.
    - Research and development expenses were \$63.0 million for the year ended December 31, 2018, compared to \$39.8 million for the year ended December 31, 2017. The increase of \$23.2 million was mainly the result of the continued growth of Aclaris' JAK inhibitor and common wart programs, as multiple Phase 2 trials of ATI-501 and ATI-502 and Phase 3 trials of A-101
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45% were conducted throughout 2018, as well as the increased headcount to support these programs. These increases were offset by a decrease in costs related to the development of ESKATA as Aclaris submitted the NDA for ESKATA in February 2017 following the completion of the clinical trials.

- Sales and marketing expenses were \$48.0 million for the year ended December 31, 2018, compared to \$13.8 million for the year ended December 31, 2017. The increase of \$34.2 million was the result of increases in direct marketing and professional fees, as well as other commercial expenses incurred to support the launch and commercialization of ESKATA in May 2018. Personnel expenses also increased as Aclaris completed the hiring of its field sales force early in 2018.
- General and administrative expenses were \$27.6 million for the year ended December 31, 2018, compared to \$19.3 million for the year ended December 31, 2017. The increase of \$8.3 million was the result of higher personnel expenses, due to increased headcount to support the commercial launch of ESKATA, as well as legal and business development costs related to the RHOFADÉ acquisition during 2018. General and administrative expenses for the year ended December 31, 2018 also included a \$1.5 million ESKATA-related milestone payment, whereas the year ended December 31, 2017 included a \$1.0 million ESKATA-related milestone payment.

- As of December 31, 2018, Aclaris had 41.2 million shares of common stock outstanding.

## **2019 Financial Outlook**

- Aclaris expects 2019 GAAP research and development (R&D) expenses to be in the range of \$61 to \$64 million, including estimated stock-based compensation of \$7 million. This expense guidance for R&D in 2019 contemplates the completion of Aclaris' Phase 2 clinical trials in AA, open label trials in AGA, vitiligo and AD, and two pivotal Phase 3 trials in common warts, as well as the further advancement of Aclaris' preclinical pipeline compounds, including ATI-450 and ATI-1777.
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- Aclaris expects 2019 GAAP sales and marketing (S&M) expenses to be in the range of \$37 to \$40 million, including estimated stock-based compensation of \$4 million. This expense guidance for S&M in 2019 contemplates all salesforce costs and the selling and marketing initiatives to support our commercial brands.
- Aclaris expects 2019 GAAP general and administrative (G&A) expenses to be in the range of \$29 to \$31 million, including estimated stock-based compensation of \$10 million. This expense guidance for G&A in 2019 contemplates additional medical affairs, legal and compliance activities to support our commercial brands.

### **Company to Host Conference Call**

Management will conduct a conference call **at 8:00 AM ET** today to discuss Aclaris' financial results and provide a general business update. The conference call will be webcast live over the Internet and can be accessed by logging on to the "Investors" page of the Aclaris Therapeutics website, [www.aclaristx.com](http://www.aclaristx.com), prior to the event. A replay of the webcast will be archived on the Aclaris Therapeutics website for 30 days following the call.

**To participate on the live call, please dial (844) 776-7782 (domestic) or (661) 378-9535 (international), and reference conference ID 9765869 prior to the start of the call.**

### **About Aclaris Therapeutics, Inc.**

Aclaris Therapeutics, Inc. is a physician-led biopharmaceutical company committed to addressing the needs of people with dermatological and immuno-inflammatory diseases who lack satisfactory treatment options. The company's diverse and multi-stage portfolio includes two FDA-approved medicines, one late-stage investigational medicine, and a pipeline powered by a robust R&D engine exploring protein kinase regulation. Aclaris Therapeutics' active development programs focus on areas where significant treatment gaps exist, such as common warts, alopecia areata, and vitiligo. For additional information, please visit [www.aclaristx.com](http://www.aclaristx.com) and follow Aclaris on LinkedIn or Twitter @aclaristx.

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## Cautionary Note Regarding Forward-Looking Statements

Any statements contained in this press release that do not describe historical facts may constitute forward-looking statements as that term is defined in the Private Securities Litigation Reform Act of 1995. These statements may be identified by words such as "believe", "expect", "may", "plan," "potential," "will," and similar expressions, and are based on Aclaris' current beliefs and expectations. These forward-looking statements include expectations regarding the commercialization of RHOFADÉ and ESKATA, the clinical development of Aclaris' drug candidates, including the availability of data from its ongoing and planned clinical trials, timing for initiation of planned clinical trials and timing for regulatory submissions, estimated research and development and sales and marketing and general and administrative expenses for 2019 and its belief that its existing cash, cash equivalents and marketable securities will be sufficient to fund its operations into the fourth quarter of 2020. These statements involve risks and uncertainties that could cause actual results to differ materially from those reflected in such statements. Risks and uncertainties that may cause actual results to differ materially include uncertainties inherent in the conduct of clinical trials, Aclaris' reliance on third parties over which it may not always have full control, and other risks and uncertainties that are described in the Risk Factors section of Aclaris' Annual Report on Form 10-K for the year ended December 31, 2018 and other filings Aclaris makes with the U.S. Securities and Exchange Commission from time to time. These documents are available under the "SEC filings" section of the Investors page of Aclaris' website at <http://www.aclaristx.com>. Any forward-looking statements speak only as of the date of this press release and are based on information available to Aclaris as of the date of this release, and Aclaris assumes no obligation to, and does not intend to, update any forward-looking statements, whether as a result of new information, future events or otherwise.

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**Aclaris Therapeutics, Inc.**  
Consolidated Statements of Operations  
(unaudited, in thousands, except share and per share data)

	<b>Three Months Ended December 31,</b>		<b>Year Ended December 31,</b>	
	<b>2018</b>	<b>2017</b>	<b>2018</b>	<b>2017</b>
Revenues:				
Product sales, net	\$ 1,897	\$ -	\$ 3,940	\$ -
Contract research	1,272	999	4,651	1,683
Other revenue	500	-	1,500	-
Total revenues, net	<u>3,669</u>	<u>999</u>	<u>10,091</u>	<u>1,683</u>
Cost of revenue <sup>(1)</sup>	<u>3,509</u>	<u>754</u>	<u>6,850</u>	<u>1,207</u>
Gross profit	160	245	3,241	476
Operating expenses:				
Research and development <sup>(1)</sup>	19,537	13,189	63,009	39,790
Sales and marketing <sup>(1)</sup>	12,967	6,585	47,997	13,769
General and administrative <sup>(1)</sup>	6,694	5,913	27,649	19,340
Total operating expenses	<u>39,198</u>	<u>25,687</u>	<u>138,655</u>	<u>72,899</u>
Loss from operations	<u>(39,038)</u>	<u>(25,442)</u>	<u>(135,414)</u>	<u>(72,423)</u>
Other income, net	487	678	2,676	2,070
Loss before income taxes	(38,551)	(24,764)	(132,738)	(70,353)
Provision for income taxes	-	(1,830)	-	(1,830)
Net loss	<u>\$ (38,551)</u>	<u>\$ (22,934)</u>	<u>\$ (132,738)</u>	<u>\$ (68,523)</u>
Net loss per share, basic and diluted	<u>\$ (0.99)</u>	<u>\$ (0.74)</u>	<u>\$ (4.03)</u>	<u>\$ (2.44)</u>
Weighted average common shares outstanding, basic and diluted	38,760,676	30,838,741	32,909,762	28,102,386

(1) Amounts include stock-based compensation expense as follows:

Cost of revenue	\$ 206	\$ 81	\$ 766	\$ 211
Research and development	1,564	1,618	6,480	5,471
Sales and marketing	805	591	3,492	1,851
General and administrative	2,381	2,010	9,317	6,897
Total stock-based compensation expense	<u>\$ 4,956</u>	<u>\$ 4,300</u>	<u>\$ 20,055</u>	<u>\$ 14,430</u>

**Aclaris Therapeutics, Inc.**  
Selected Consolidated Balance Sheet Data  
(unaudited, in thousands)

	<u>December 31, 2018</u>		<u>December 31, 2017</u>
Cash, cash equivalents and marketable securities	\$ 167,972	\$	208,854
Total assets	275,566		243,509
Total current liabilities	27,342		12,762
Total liabilities	60,442		18,247
Total stockholders' equity	215,124		225,262

Aclaris Contact

Michael Tung, M.D.  
Senior Vice President  
Corporate Strategy/Investor Relations  
484-329-2140  
mtung@aclaristx.com

Media Contact  
Sheila Kennedy  
Vice President, Corporate Communications  
484-321-5559  
media@aclaristx.com



# R&D Clinical Update

March 18, 2019



## Cautionary Note Regarding Forward-Looking Statements

Any statements contained in this presentation that do not describe historical facts may constitute forward-looking statements as that term is defined in the Private Securities Litigation Reform Act of 1995. These statements may be identified by words such as "believe", "expect", "may", "plan," "potential," "will," and similar expressions, and are based on Aclaris' current beliefs and expectations. These forward-looking statements include expectations regarding Aclaris' drug candidates. These statements involve risks and uncertainties that could cause actual results to differ materially from those reflected in such statements. Risks and uncertainties that may cause actual results to differ materially include uncertainties inherent in the conduct of clinical trials, Aclaris' reliance on third parties over which it may not always have full control, and other risks and uncertainties that are described in the Risk Factors section of Aclaris' Annual Report on Form 10-K for the year ended December 31, 2018, and other filings Aclaris makes with the U.S. Securities and Exchange Commission from time to time. These documents are available under the "SEC filings" section of the Investors page of Aclaris' website at <http://www.aclaristx.com>. Any forward-looking statements speak only as of the date of this presentation and are based on information available to Aclaris as of the date of this presentation, and Aclaris assumes no obligation to, and does not intend to, update any forward-looking statements, whether as a result of new information, future events or otherwise.



# Pipeline

Program	Indication(s)	Preclinical	Phase 1	Phase 2	Phase 3
A-101(45%) <i>Topical</i>	Common Warts				
ATI-502 JAK1/JAK3 Inhibitor <i>Topical</i>	Alopecia Areata				
	Vitiligo				
	Androgenetic Alopecia (exploratory)				
	Atopic Dermatitis (exploratory)				
ATI-501 JAK1/JAK3 Inhibitor <i>Oral</i>	Alopecia Areata				
ATI-450 MK-2 Pathway Inhibitor <i>Oral</i>	RA, Psoriasis, Hidradenitis Suppurativa, CAPS, Pyoderma Gangrenosum, Other				
ATI-1777 JAK1/JAK3 Inhibitor <i>Soft Topical</i>	Atopic dermatitis, Vitiligo, Alopecia Areata				
ITK/JAK3 Inhibitor <i>Soft Topical</i>	Psoriasis, Inflammatory Dermatoses				
ITK/JAK3 Inhibitor <i>Oral</i>	Psoriasis, Inflammatory Dermatoses				
MK-2 Pathway Inhibitor <i>Oral</i>	Oncology				
ITK/JAK3 Inhibitor <i>Oral, gut-restricted</i>	Ulcerative colitis / Crohn's disease				

# ATI-502-AUATB-201 - Australian Eyebrow



## Subject 01-008 (33/M)

- The onset date for the current episode of eyebrow loss was 2010, and the onset of Alopecia Areata was 2009.
- No previous therapies for eyebrow hair loss.
- As of 2/26/19, the subject has had 250 days of exposure to study drug.

**Visit 2 (Baseline)**



**Visit 12 (250 Days on Drug)**



**Visit 2 (Baseline)**



**Visit 12 (250 Days on Drug)**



**Visit 2 (Baseline)**



**Visit 12 (250 Days on Drug)**



## Subject 02-010 (23/F)

- The onset date for the current episode of eyebrow loss and the onset of Alopecia Areata was May 2017.
- The subject has previously used an undefined “other” treatment as therapy for eyebrow hair loss.
- As of 2/15/19, the subject has had 268 days of exposure to study drug.

**Visit 2 (Baseline)**



**Visit 12 (268 Days on Drug)**





**Visit 2 (Baseline)**



**Visit 12 (268 Days on Drug)**



**Visit 2 (Baseline)**



**Visit 12 (268 Days on Drug)**



## Subject 02-007 (45/F)

- The onset date for the current episode of eyebrow loss was 2013, and the onset of Alopecia Areata was 1986.
- Prior therapies for eyebrow hair loss include glucocorticosteroids and JAK inhibitors.
- As of 2/22/19, the subject has had 289 days of exposure to study drug with a 47 day gap.

**Visit 2 (Baseline)**



**Visit 12 (289 Days on Drug\*)**



**Visit 2 (Baseline)**



**Visit 12 (289 Days on Drug\*)**



Visit 2 (Baseline)



Visit 12 (289 Days on Drug\*)



# Spectrum of Hair Loss

24%



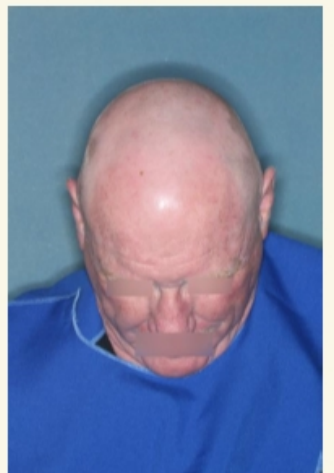
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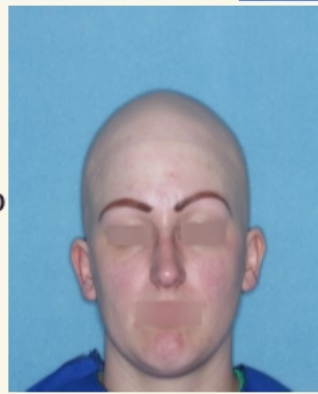
43%



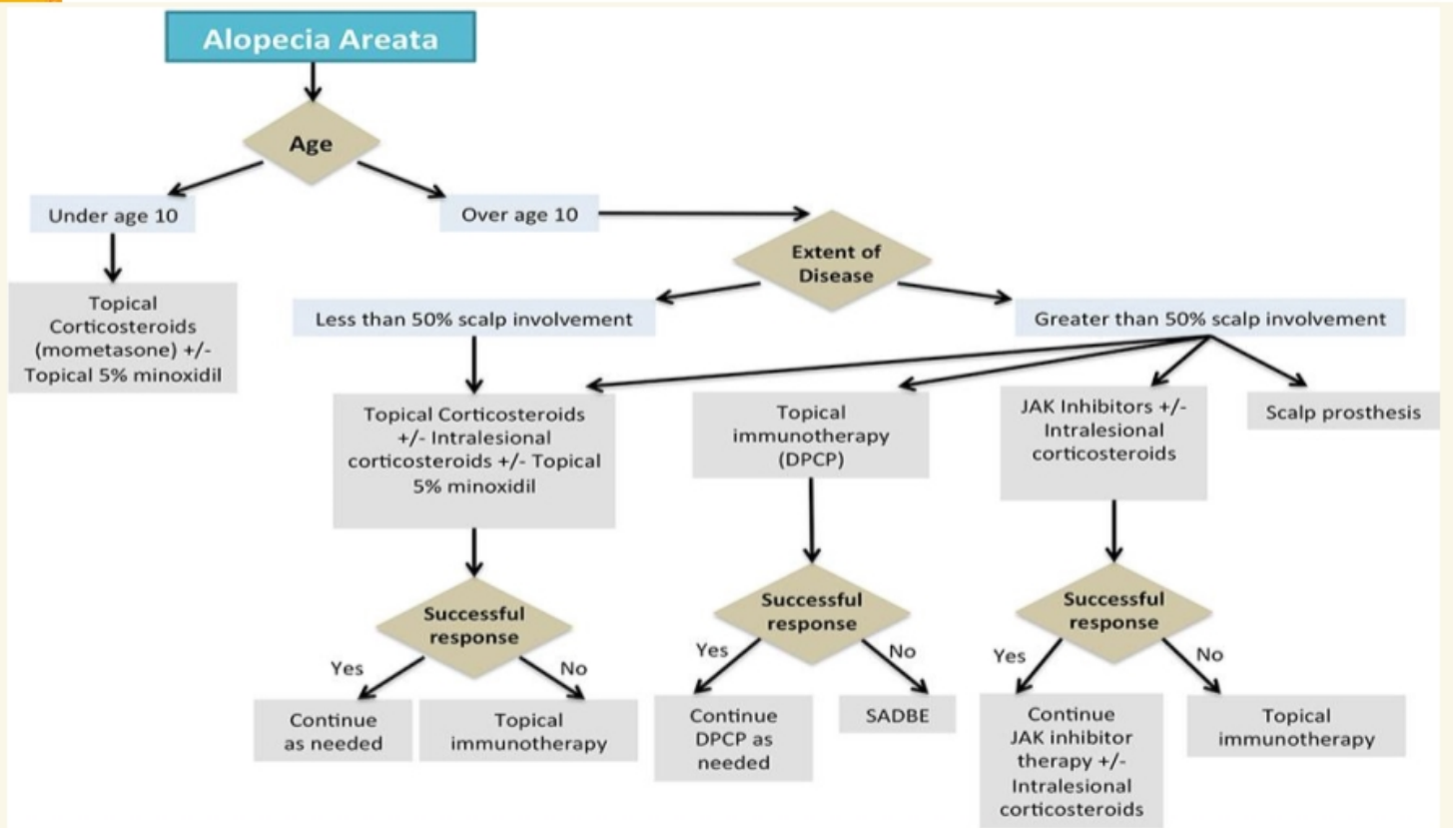
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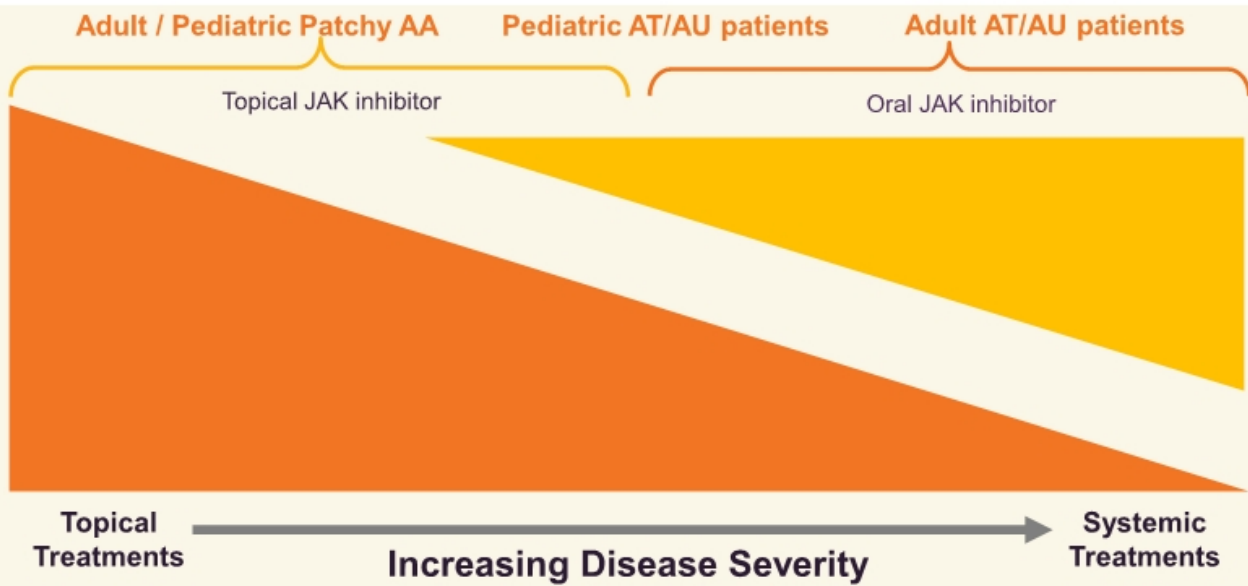
# Current treatment paradigm



<https://www.naaf.org/alopecia-areata/alopecia-areata-treatments> - Last accessed 3-14-19



# Alopecia Areata: Potential Treatment Paradigms



## INDUCTION:

Topical JAK inhibitor may be efficacious in patients with less severe patchy AA  
Oral JAK inhibitor may be best option in patients with more severe AT/AU phenotypes

## MAINTENANCE:

AT/AU patients may be able to maintain hair with topical JAK inhibitor  
Concomitant topical therapy may decrease reliance on longer term oral therapy in some patients

# ATI-450 (MK-2 Inhibitor)

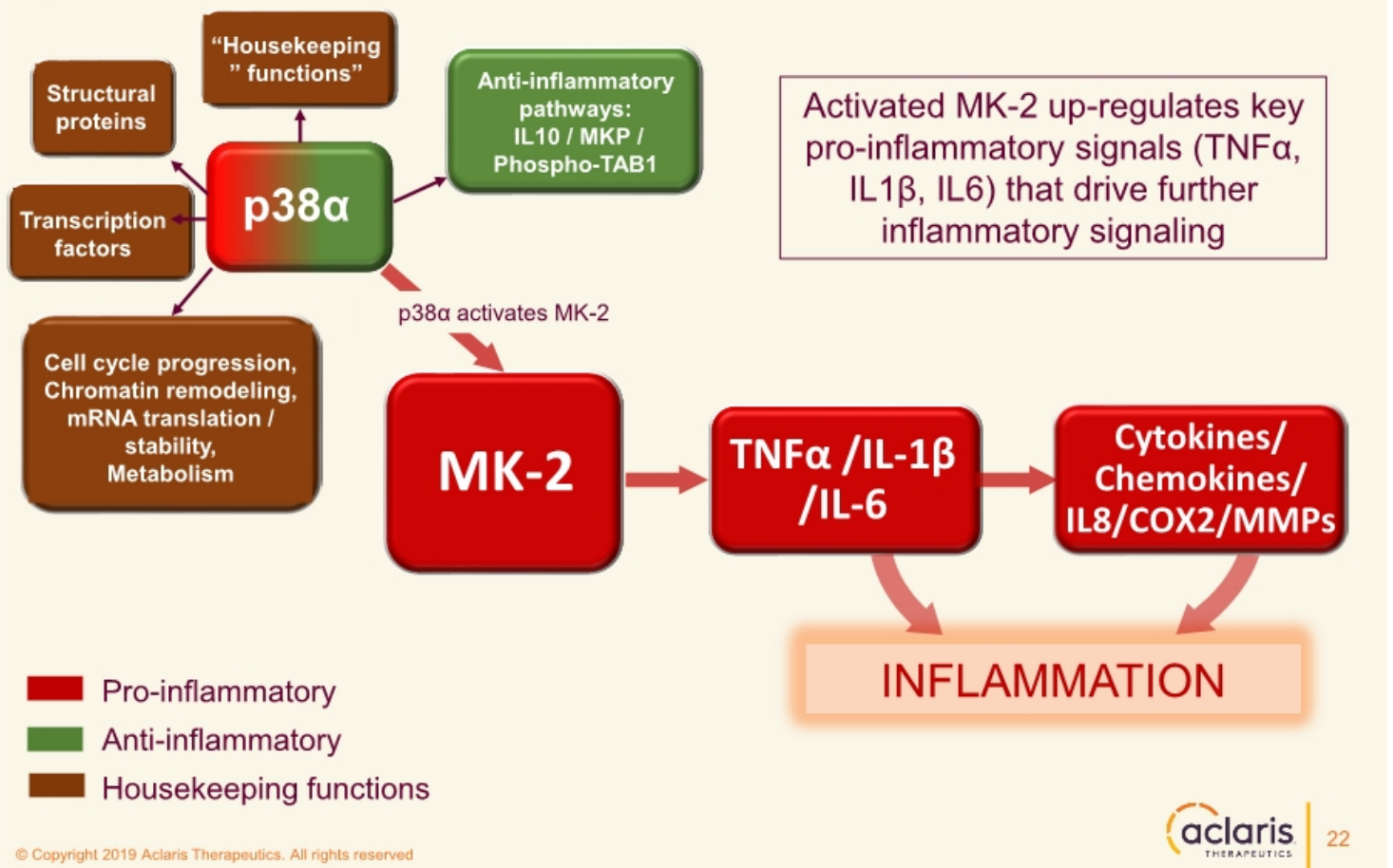


## MK-2 Pathway Inhibitor (MK-2 PI) ATI-450

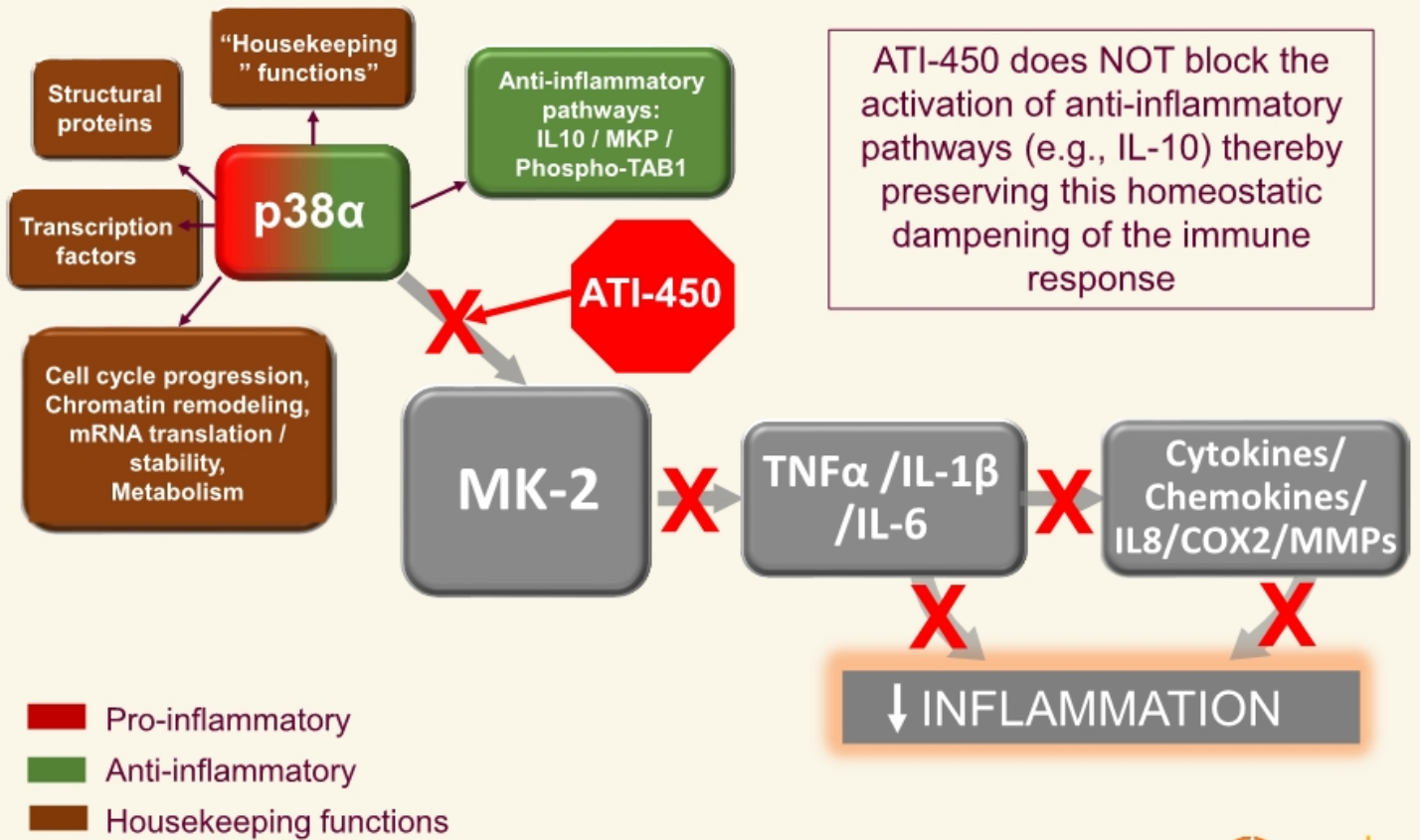
- Pharmacologically unique MOA
- MK-2 pathway inhibitors target the production and activity of key inflammatory cytokines including TNF $\alpha$ , IL-1 $\alpha$ , IL-1 $\beta$  and IL-6
- ATI-450 inhibits the cytokine targets of established biologics:
  - Anti-TNFs: Humira®, Enbrel®, Remicade®
    - *RA, psoriasis, psoriatic arthritis, IBD, ankylosing spondylitis*
  - Anti-IL1s: Kineret®, Ilaris®, Arcalyst®
    - *CAPS, Still's disease, SJIA, cardiovascular disease*
  - Anti-IL6: Kevzara®, Actemra®
    - *RA, Castleman's disease*
- Aclaris is developing MK-2 pathway inhibitors for chronic inflammatory disease and autoimmune disease

MK-2 = mitogen-activated protein kinase-activated protein kinase 2 (MAPKAPK2)  
RA = rheumatoid arthritis; IBD = inflammatory bowel disease; SJIA = systemic juvenile idiopathic arthritis

# The MK2 Pathway Drives Key Inflammatory Cytokines: TNF $\alpha$ , IL-1 $\beta$ and IL-6



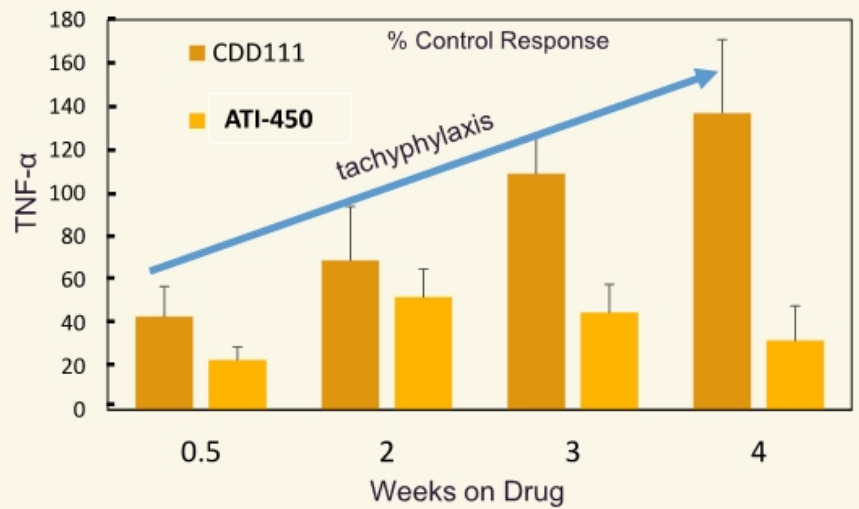
# ATI-450 Inhibits the Expression of Key Inflammatory Cytokines: TNF $\alpha$ , IL-1 $\beta$ and IL-6



## Mouse LPS-Induced TNF $\alpha$ Production

*ATI-450 demonstrated durable response (no tachyphylaxis)*

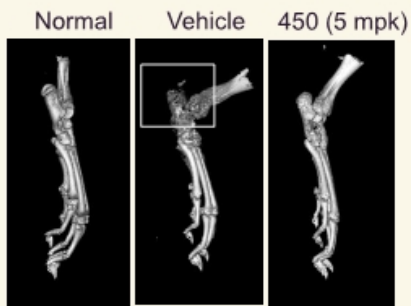
- Global p38 inhibitor CDD-111 lost inhibition over time
- **This investigational MK-2 pathway inhibitor ATI-450 demonstrated durable responses in this model (no tachyphylaxis)**



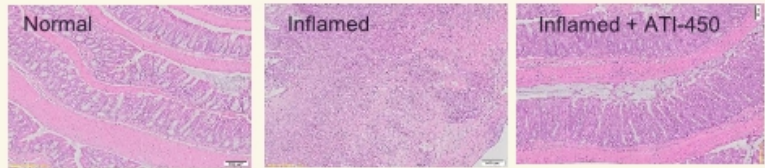
- Conventional p38 (CDD-111) and MK-2PI (ATI-450) administered to mice in feed starting day 1 and continuing through day 28
- At the time point indicated, mice were LPS challenged and blood TNF $\alpha$  levels determined

# In vivo Results of MK-2 Pathway Inhibitor ATI-450

## Joint Protection in Rat Arthritis Model<sup>1</sup>

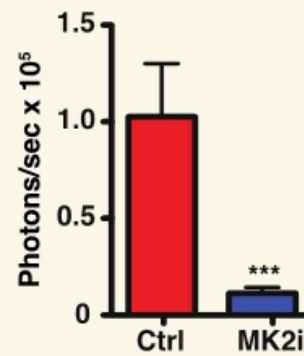


## Blockade of Gut Inflammatory Infiltrate in Murine Adoptive Transfer Ulcerative Colitis Model<sup>3</sup>

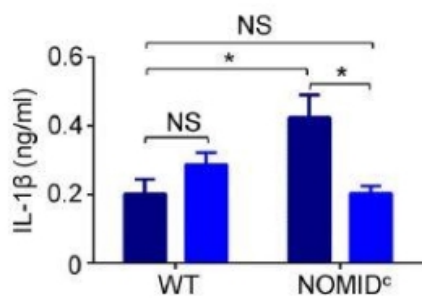


## Reduction in Breast Cancer Bone Metastasis in Mice<sup>2</sup>

### Bone Metastasis



## Cytokine (IL-1 Beta) Modulation in Orphan Autoinflammatory Disease (CAPS)<sup>1</sup>



<sup>1</sup> Wang C, et al. J Exp Med. 2019;215(5):1315-1325.  
<sup>2</sup> Murali B, et al. Cancer Res. 2019;78(19):5618-5630.  
<sup>3</sup> Data on File. Aclaris Therapeutics Inc.

THANK YOU



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