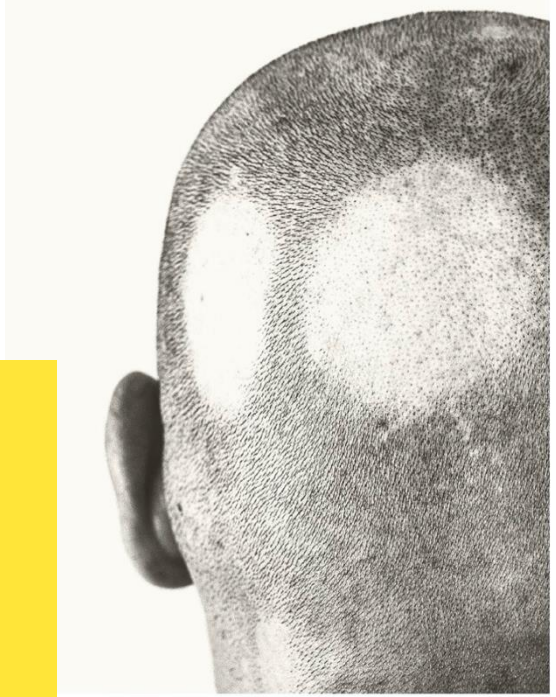
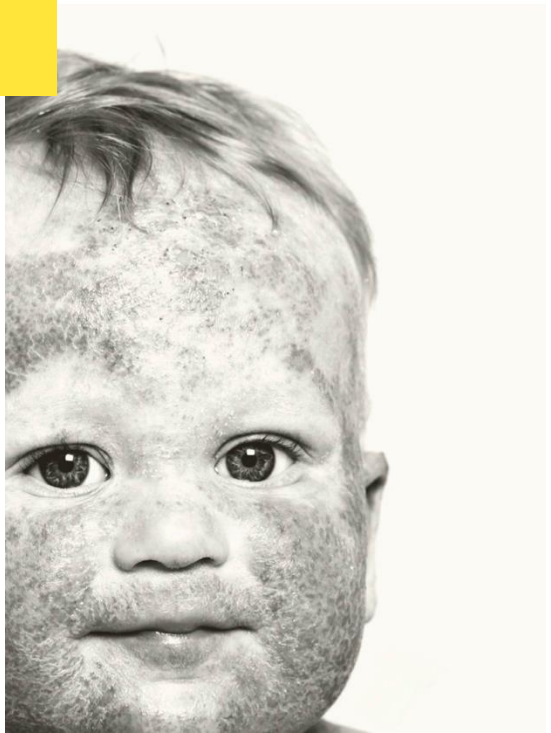
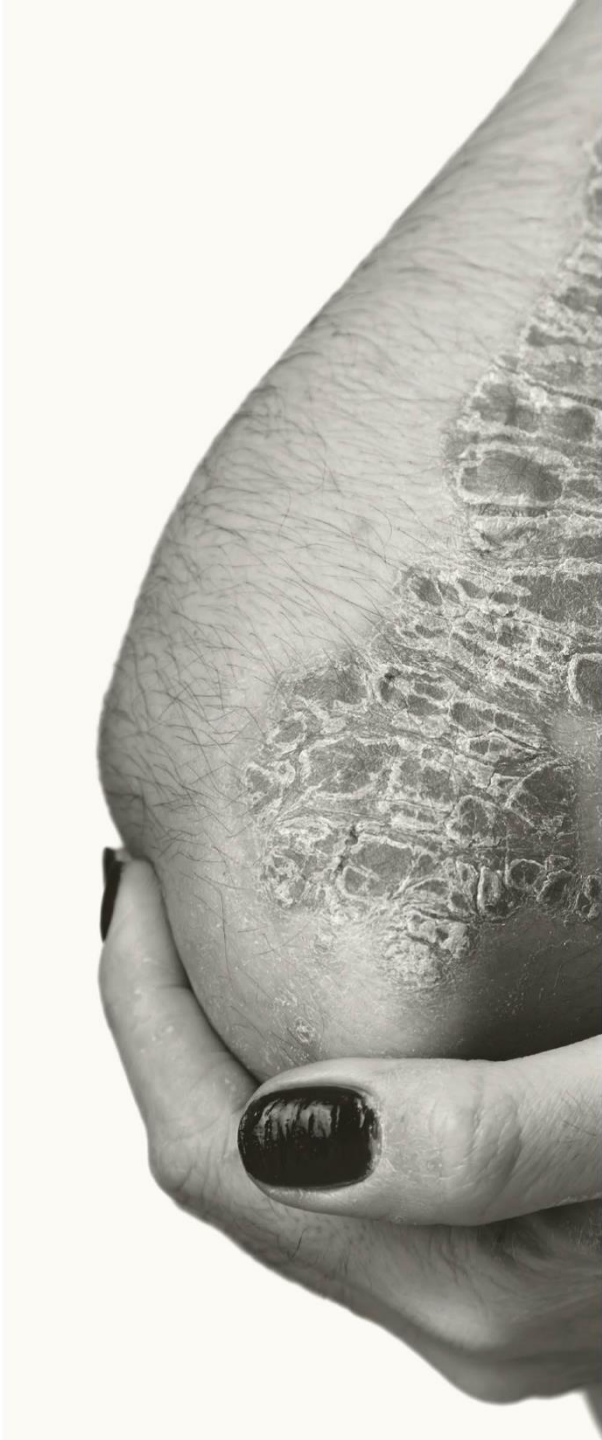
INTEGUMENT -1 & -2
Phase 3 Atopic Dermatitis Topline Data Presentation

December 12, 2022







ARCUTIS BIOTHERAPEUTICS

Bioscience applied to the skin.

Legal Disclaimers

This presentation and the accompanying oral presentation contain "forward-looking" statements that are based on our management's beliefs and assumptions and on information currently available to management. Forward-looking statements include all statements other than statements of historical fact contained in this presentation, including information concerning our current and future financial performance, business plans and objectives, current and future clinical and preclinical development activities, current and future commercialization activities, timing and success of our ongoing and planned clinical trials and related data, the timing of announcements, updates and results of our clinical trials and related data, our ability to obtain and maintain regulatory approvals, the potential therapeutic benefits and economic value of our product candidates, competitive position, industry environment, and potential market opportunities.

Forward-looking statements are subject to known and unknown risks, uncertainties, assumptions and other factors including, but not limited to, those related to the success, cost and timing of our product candidate development activities and ongoing and planned clinical trials; our plans to develop and commercialize targeted therapeutics, including our lead product candidates roflumilast cream and roflumilast foam; the progress of patient enrollment and dosing in our clinical trials; the ability of our product candidates to achieve applicable endpoints in the clinical trials; the safety profile of our product candidates; the potential for data from our clinical trials to support a marketing application, as well as the timing of these events; our ability to obtain funding for our operations, development and commercialization of our product candidates; the timing of and our ability to obtain and maintain regulatory approvals; the rate and degree of market acceptance and clinical utility of our product candidates; the size and growth potential of the markets for our product candidates, and our ability to serve those markets; our commercialization, marketing and manufacturing capabilities and strategy; current and future agreements with third parties in connection with the commercialization of our product candidates; our expectations regarding our ability to obtain and maintain intellectual property protection; our dependence on third party manufacturers; the success of competing therapies that are or may become available; our ability to attract and retain key scientific or management personnel; our ability to identify additional product candidates with significant commercial potential consistent with our commercial objectives; and our estimates regarding expenses, future revenue, capital requirements and needs for additional financing.

Moreover, we operate in a very competitive and rapidly changing environment, and new risks may emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed herein may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements.

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This presentation also contains estimates and other statistical data made by independent parties and by us relating to market size and growth and other data about our industry. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. Neither we nor any other person makes any representation as to the accuracy or completeness of such data or undertakes any obligation to update such data after the date of this presentation. In addition, projections, assumptions and estimates of our future performance and the future performance of the markets in which we operate are necessarily subject to a high degree of uncertainty and risk.

For further information with respect to Arcutis, we refer you to our most recent annual report on Form 10-K, as amended, and in our two most recent quarterly report on Form 10-Q, filed with the SEC. In addition, we are subject to the information and reporting requirements of the Securities Exchange Act of 1934 and, accordingly, we file periodic reports, current reports, proxy statements and other information with the SEC. These periodic reports, current reports, proxy statements and other information are available for review at the SEC's website at http://www.sec.gov.

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Today's Speakers

Frank Watanabe
President & CEO

Patrick Burnett, MD, PhD, FAAD
Chief Medical Officer

Lawrence Eichenfield, MD
Chief of Pediatric & Adolescent Dermatology at Rady Children's Hospital; Professor of Dermatology & Pediatrics at UC San Diego School of Medicine

Ken Lock
Chief Commercial Officer

Speakers & Agenda

Frank Watanabe

President and CEO

Arcutis Overview

Clinical Results

Clinically Contextualizing Results

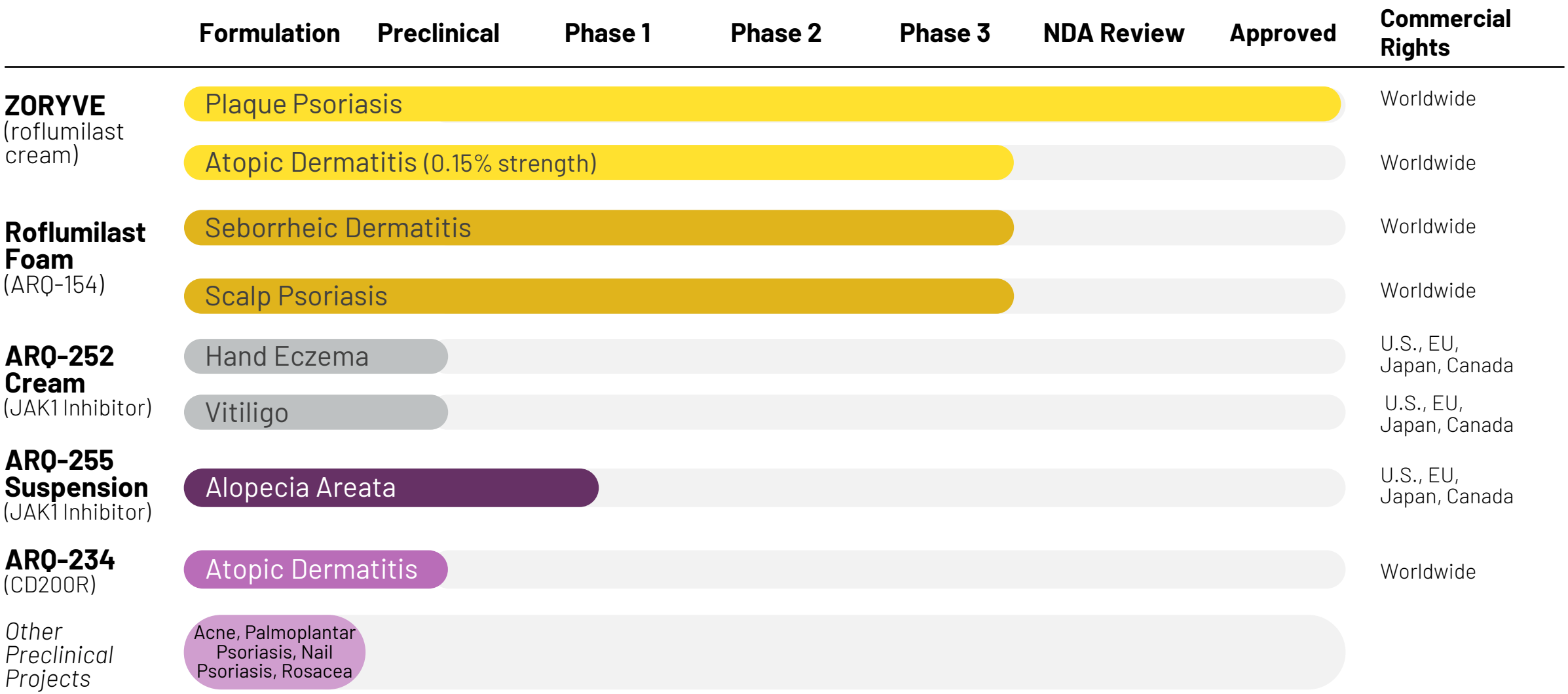
Commercial Opportunity

Q&A

2022: A Transformational Year for Arcutis

- Topical roflumilast offers a differentiated clinical profile, with positive efficacy results in three distinct disease areas, each with >2 million topically treated patients today in U.S. Dermatology offices
- Continued clinical trial execution with topline success in three pivotal Phase 3 development programs
- We are very excited about the clinical profile and the significant opportunity for roflumilast cream in atopic dermatitis
- Launch of ZORYVE® (roflumilast) cream 0.3% in plaque psoriasis continues to build with early formulary coverage wins validating our pricing and access strategy

Broad and Deep Pipeline Continues to Progress



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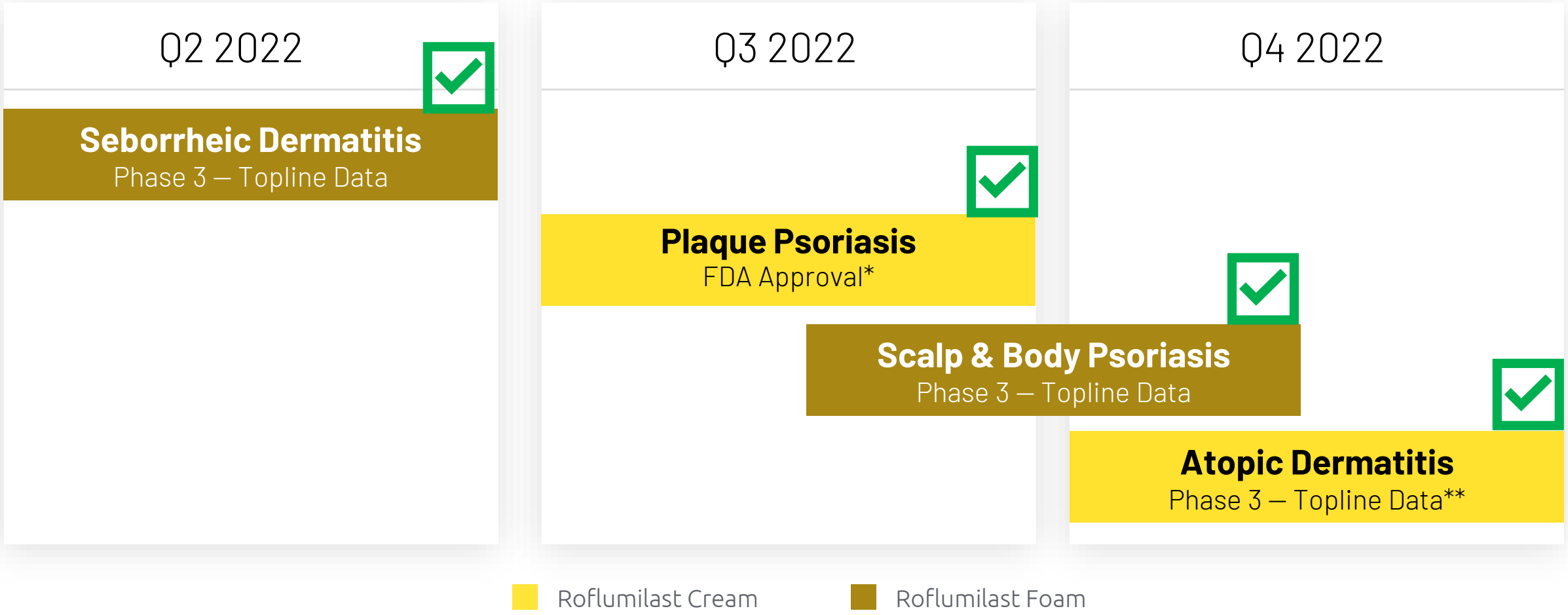
Arcutis Continues to Execute Without Fail



*Approved by the FDA for topical treatment of plaque psoriasis, including intertriginous areas, in patients 12 years of age and older; ** Phase 3 topline for INTEGUMENT-1 and -2 with 0.15% strength; INTEGUMENT-PED expected in 2023*

Topical Roflumilast Opportunity: ~7 million Dermatologist-Treated Patients in the U.S. Alone

	Psoriasis	Atopic Dermatitis	Seborrheic Dermatitis
Prevalence	~9M	~26M	~10M
Topical Rx treated in Derm Setting	**2.0M** *(mild-moderate-severe)*	**2.6M** *(mild-to-moderate)*	**2.2M** *(moderate-to-severe)*
Topically treated outside Derm	~1.2M *(mild-moderate-severe)*	~4.1M *(mild-to-moderate)*	~1.0M *(moderate-to-severe)*

Significant incremental opportunity

to access the millions of U.S. patients Rx treated by other specialties (e.g., PCPs or pediatricians) via partnership

Rx = Prescription; PCP = primary care physician

Speakers & Agenda

Patrick Burnett,
MD, PhD, FAAD

Chief Medical Officer

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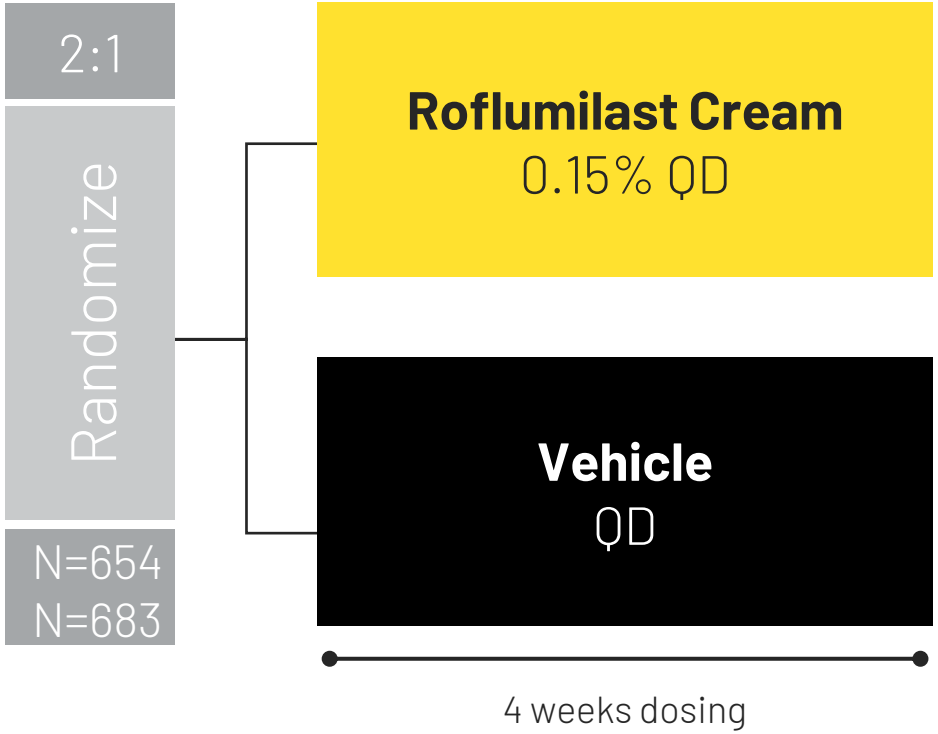
INTEGUMENT-1 & -2 Phase 3 Atopic Derm Studies

Randomized, Double-blind, Vehicle-controlled, Multicenter Studies
(Two identical, parallel Phase 3 studies)

Eligibility

- Diagnosis of mild or moderate AD (vIGA = 2 or 3)
- Age 6+
- BSA ≥3%
- EASI ≥5



Endpoints

Primary

- vIGA-AD success at week 4

Secondary

- EASI-75
- WI-NRS (itch)
- vIGA = Clear (0) or Almost Clear (1)

Safety and tolerability

vIGA- Success = Clear or Almost Clear with at least a 2-grade improvement from baseline; BSA = body surface area; EASI = eczema area severity index; WI-NRS: Worst Itch Numeric Rating Scale; QD = once a day dosing

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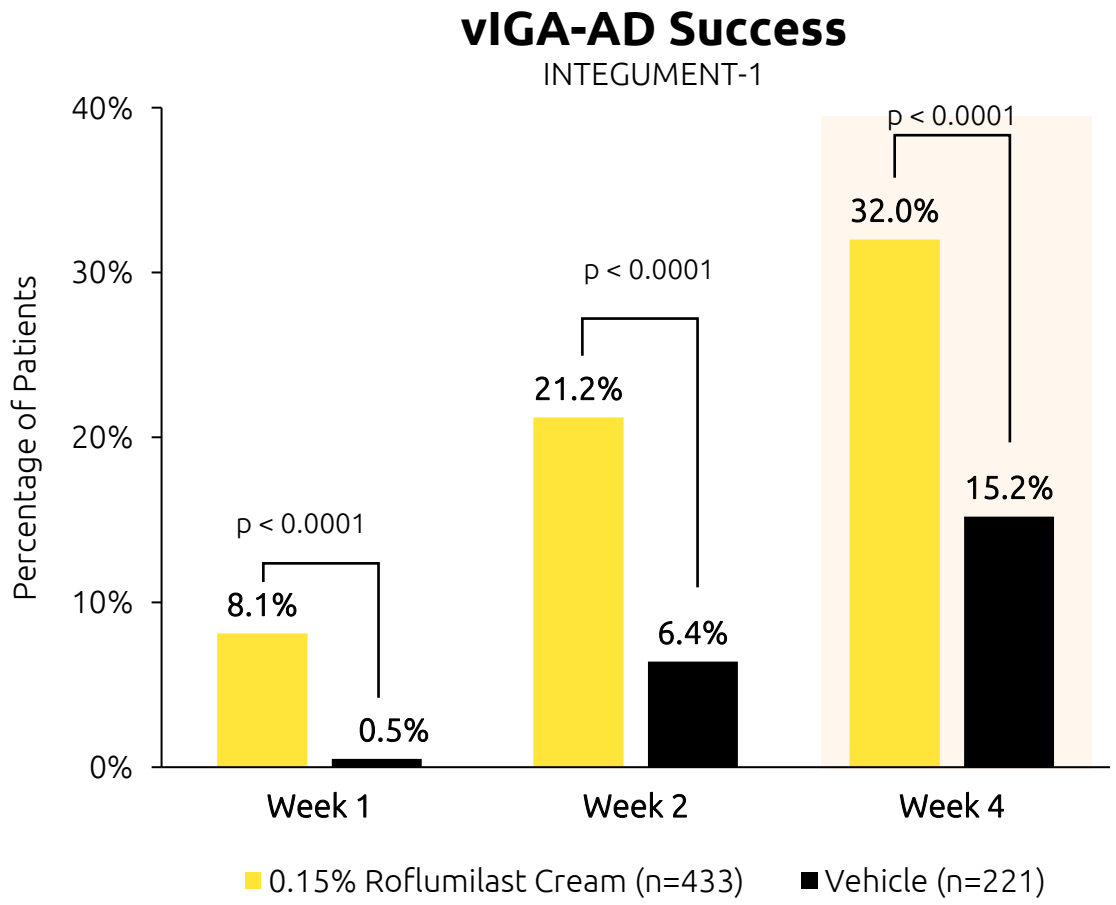
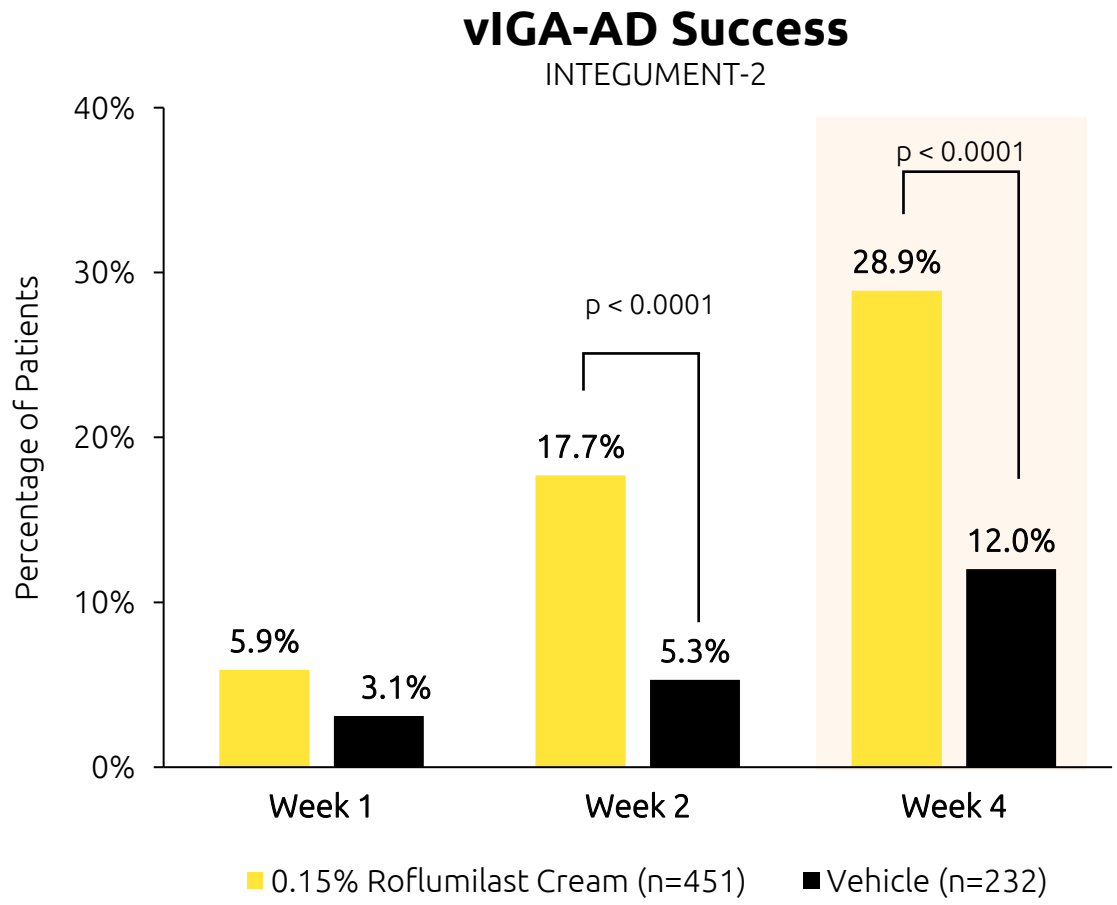
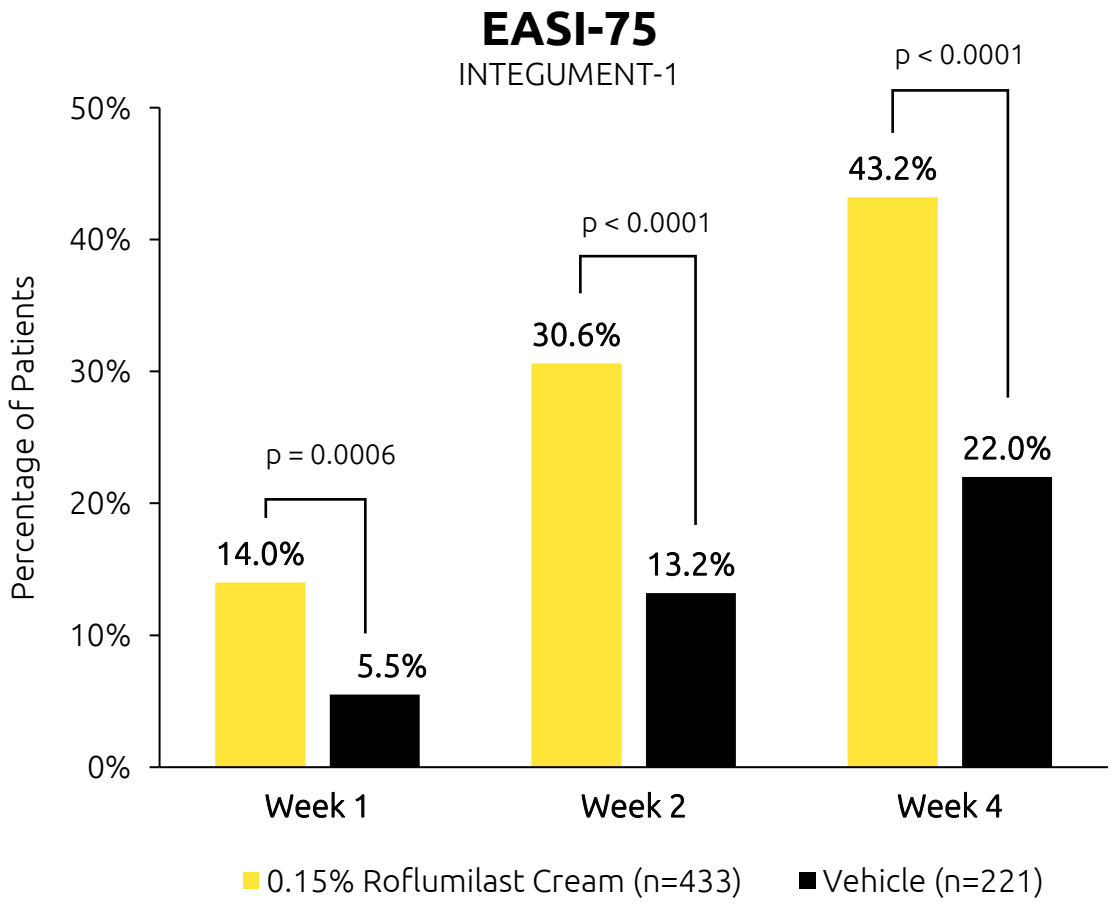
Rapid, Robust Efficacy on IGA Success Observed in Both Phase 3 Atopic Dermatitis Trials

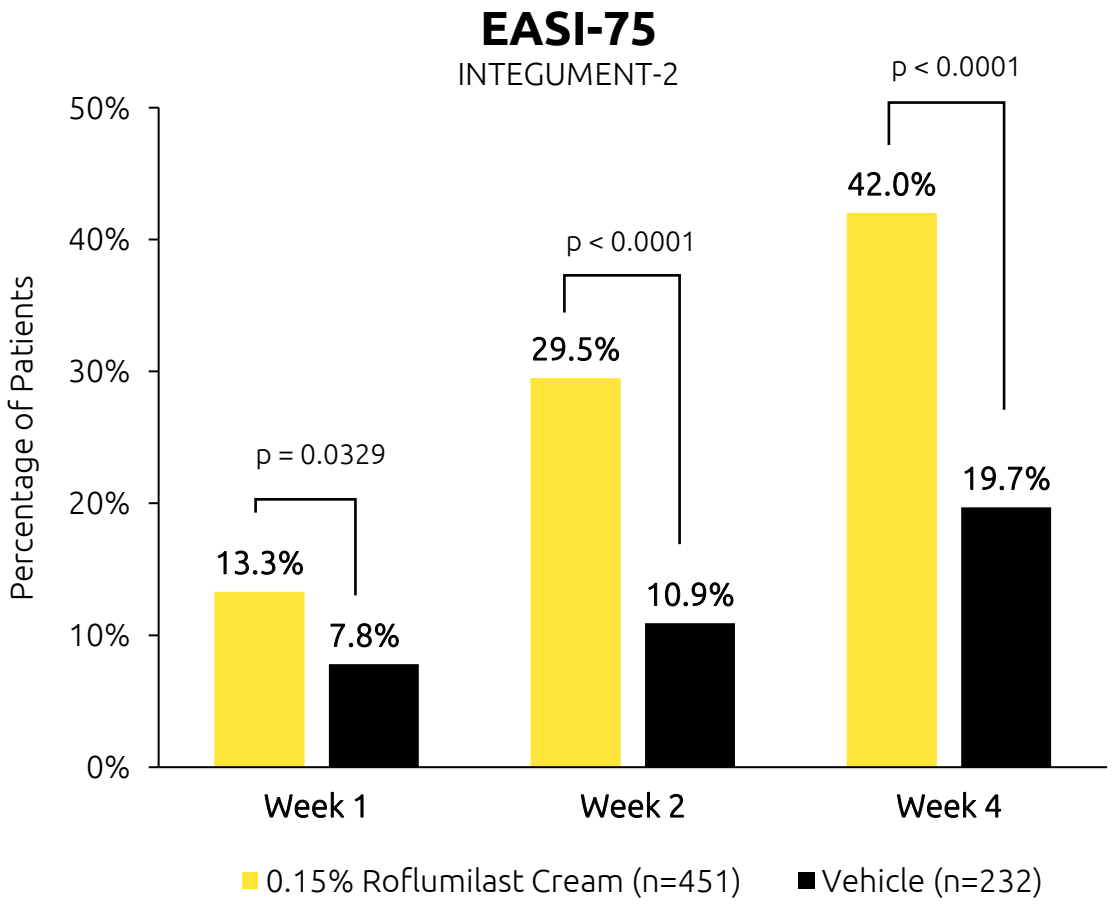




vIGA = Validated Investigator's Global Assessment; IGA Success = Clear or Almost Clear with at least a 2-grade improvement from baseline; ITT Population
Statistical analysis based on multiple imputation

Over 40% of Patients Achieved EASI-75 at Week 4





EASI -75 = 75% improvement from baseline

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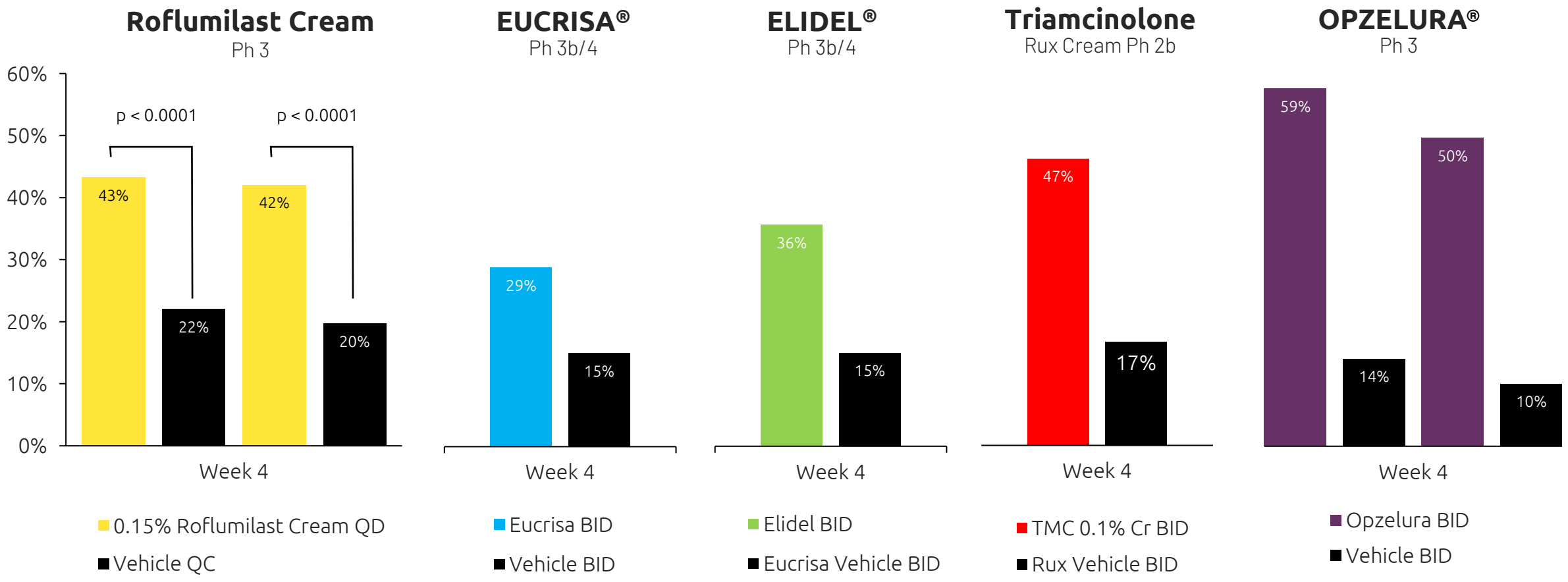
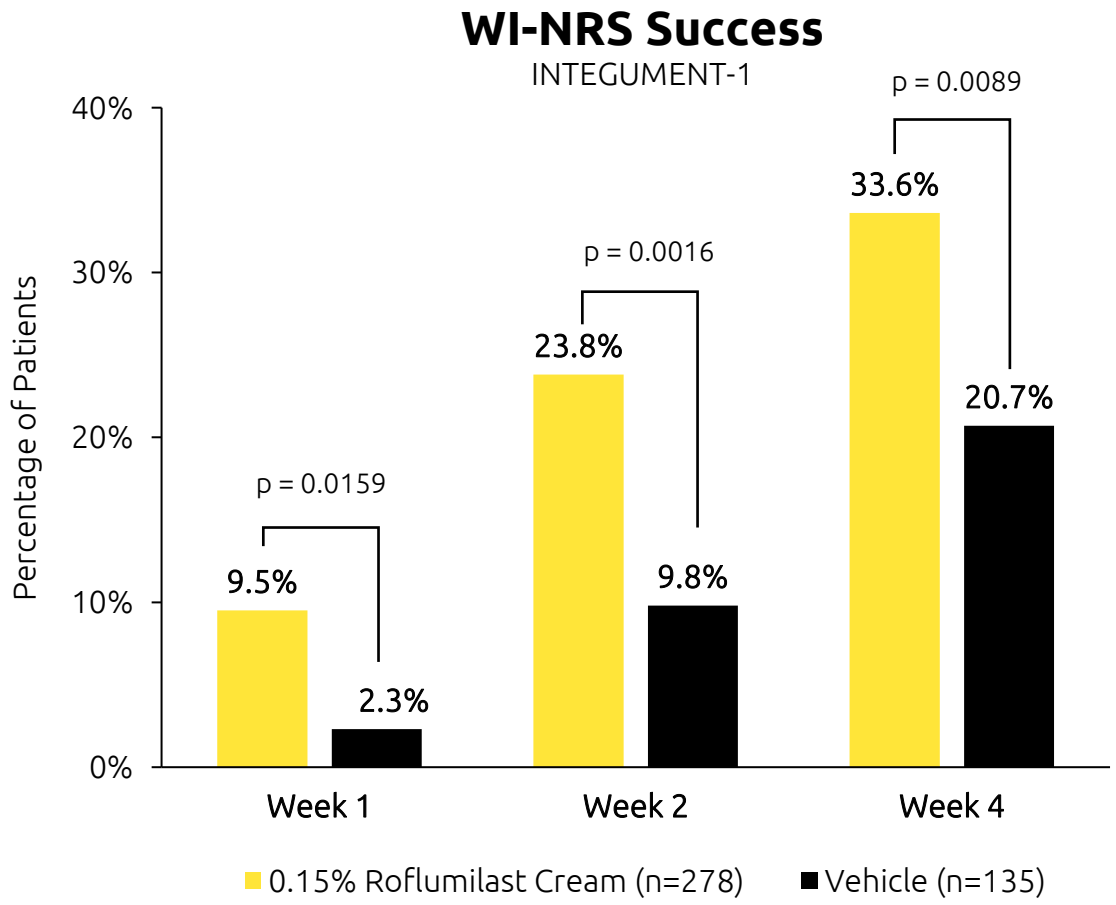
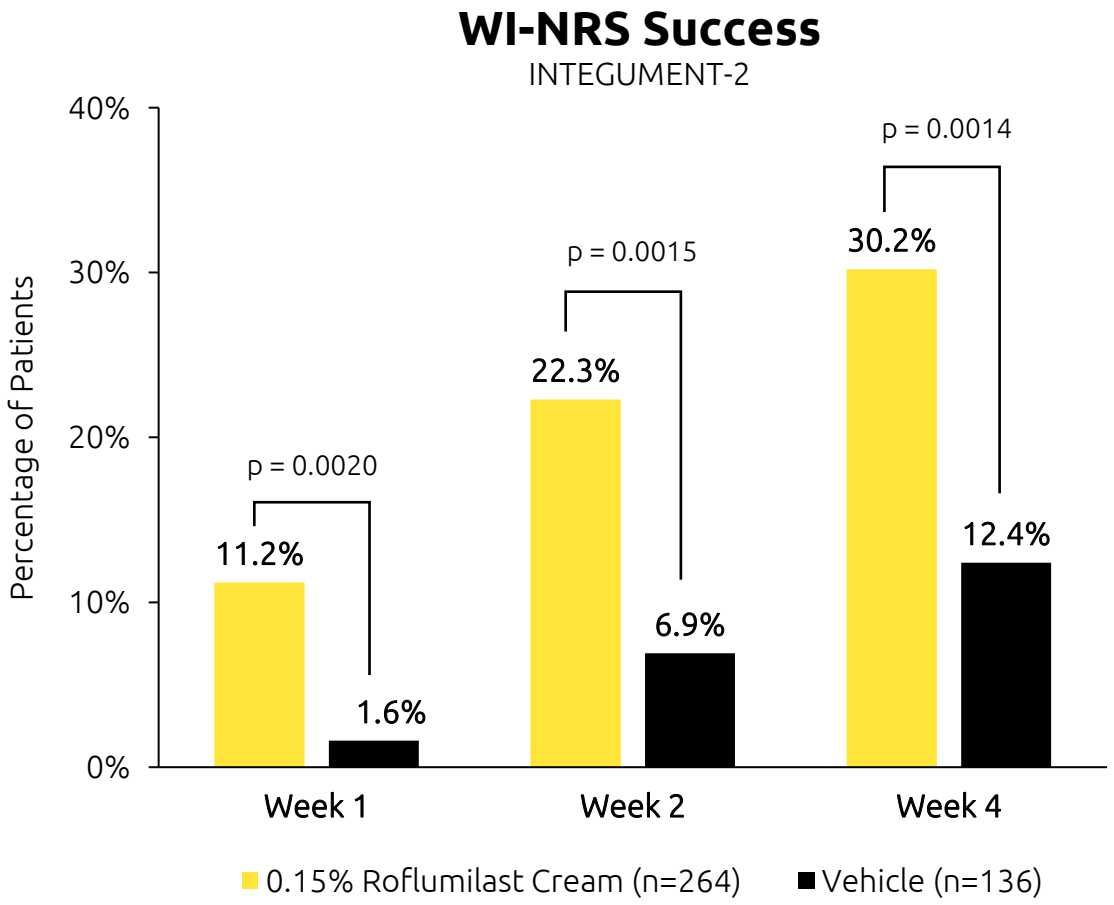
Roflumilast Cream vs. Current Approved Treatments in Atopic Dermatitis [EASI-75 Responders]



Note: The results of this retrospective post-hoc cross-trial comparison may not be directly comparable. Differences exist between trial designs and subject characteristics, and caution should be exercised when comparing data across unrelated studies. QD = once a day dosing; BID = twice a day dosing; EUCRISA = crisaborole; ELIDEL = pimecrolimus; OPZELURA = ruxolitinib cream

Robust and Rapid Itch Response Observed in Phase 3





WI-NRS: Worst Itch Numeric Rating Scale (only measured in the 12+ year old population in the study); WI-NRS response = 4 point reduction in WI-NRS in patients with WI-NRS >= 4 at baseline

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Roflumilast Cream Was Well-Tolerated in Phase 3

	INTEGUMENT-1		INTEGUMENT-2	
Subjects (%)	**Roflumilast 0.15%** (n=433)	**Vehicle** (n=221)	**Roflumilast 0.15%** (n=452)	**Vehicle** (n=230)
Subjects with any TEAE	92 (21.2%)	35 (15.8%)	102 (22.6%)	30 (13.0%)
Subjects with any Treatment-Related TEAE	27 (6.2%)	4 (1.8%)	26 (5.8%)	8 (3.5%)
Subjects with any SAE	4 (0.9%)	0	4 (0.9%)	0
Subjects with treatment-related SAE	0	0	2 (0.4%)	0
Subjects who discontinued Study due to AE	6 (1.4%)	3 (1.4%)	8 (1.8%)	2 (0.9%)

AE: adverse event; SAE: serious adverse event; TEAE: treatment-emergent adverse event

Most Common Treatment-Emergent Adverse Events (≥1.0% in Any Group)

	INTEGUMENT-1		INTEGUMENT-2	
Preferred Term	**Roflumilast 0.15%** (n=433)	**Vehicle** (n=221)	**Roflumilast 0.15%** (n=452)	**Vehicle** (n=230)
Headache	10 (2.3%)	3 (1.4%)	16 (3.5%)	1 (0.4%)
Nausea	8 (1.8%)	2 (0.9%)	9 (2.0%)	0
Application site pain	9 (2.1%)	1 (0.5%)	4 (0.9%)	2 (0.9%)
Nasopharyngitis	8 (1.8%)	2 (0.9%)	0	1 (0.4%)
COVID-19	4 (0.9%)	5 (2.3%)	4 (0.9%)	3 (1.3%)
Diarrhea	6 (1.4%)	0	7 (1.5%)	2 (0.9%)
Vomiting	5 (1.2%)	0	8 (1.8%)	2 (0.9%)
Upper respiratory tract infection	0	1 (0.5%)	5 (1.1%)	1 (0.4%)

Next Steps for Roflumilast Cream in Atopic Dermatitis

Expect to submit sNDA for atopic dermatitis using INTEGUMENT-1 & -2 in the second half of 2023

- Plan to seek potential approval for atopic dermatitis in individuals aged 6+ with 10-month FDA review timeline [~90% of U.S. Dermatologist-treated AD opportunity]

Topline data from INTEGUMENT-PED expected in 2023

- Submit sNDA for 2-5 year olds after potential approval of 6+ atopic dermatitis indication [~10% of U.S. Derm opportunity & ~20% of broader U.S. topical AD opportunity]

Speakers & Agenda

Lawrence Eichenfield, MD

Chief of Pediatric & Adolescent Dermatology at Rady Children's Hospital; Professor of Dermatology & Pediatrics at UC San Diego School of Medicine

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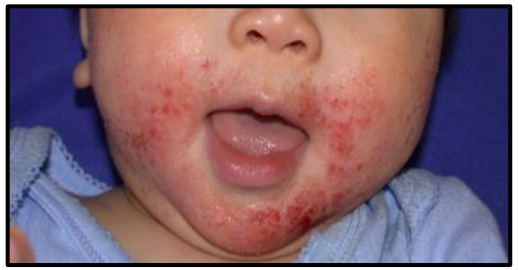
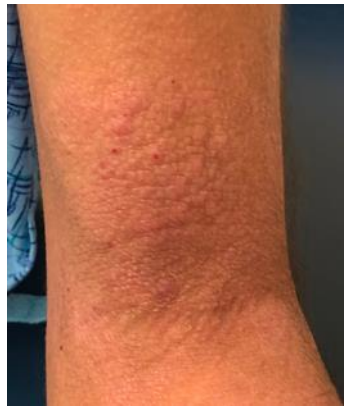
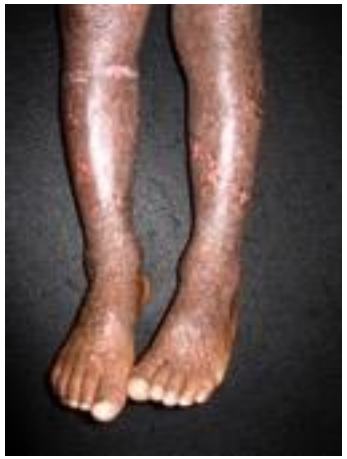
Atopic Dermatitis – Disease Background

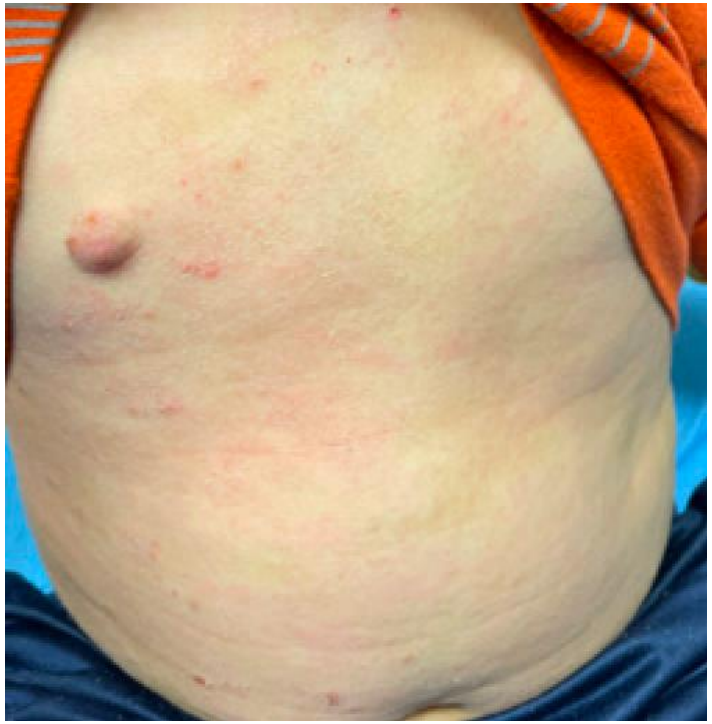


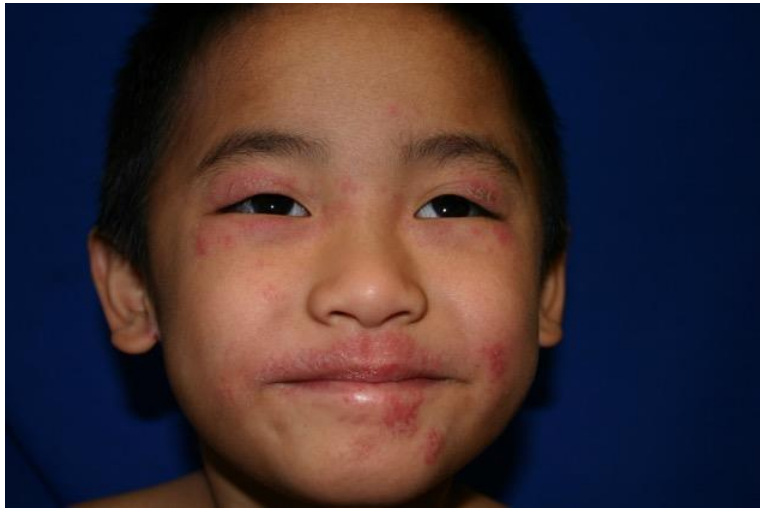
- Chronic, genetically predisposed, inflammatory skin disease
- Presents across the lifespan
  - Childhood disease common, but high prevalence throughout life (12-15% children, 7% adults)
  - Adult onset underappreciated, accounts for up to 25% of adult cases
- Altered skin barrier function and neuroimmune dysregulation
- Itch (pruritus) - most burdensome symptom
- Significant unmet therapeutic needs

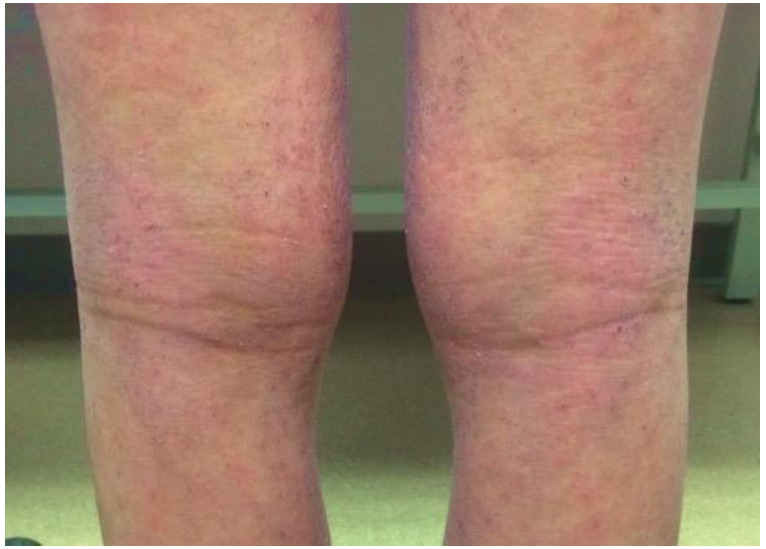


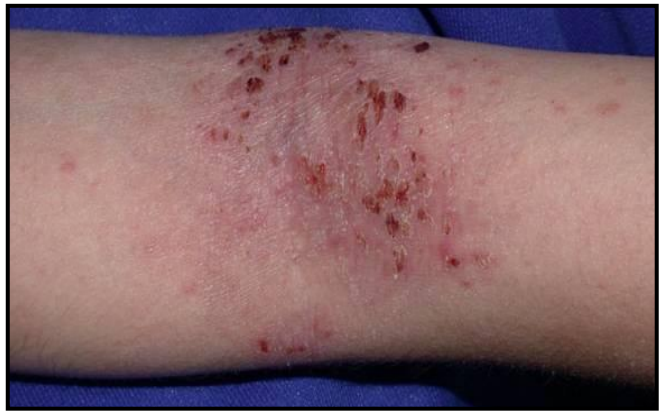


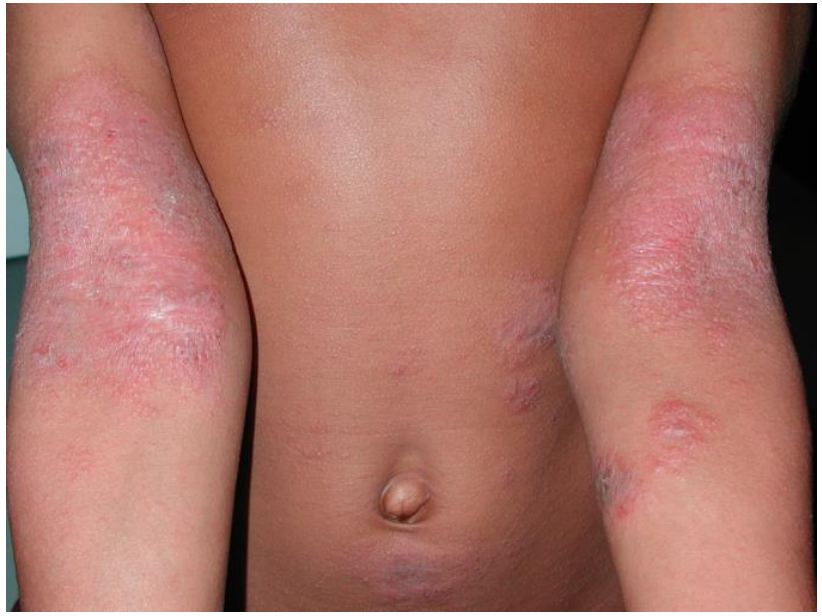
Atopic Dermatitis – Clinical Presentation of Disease

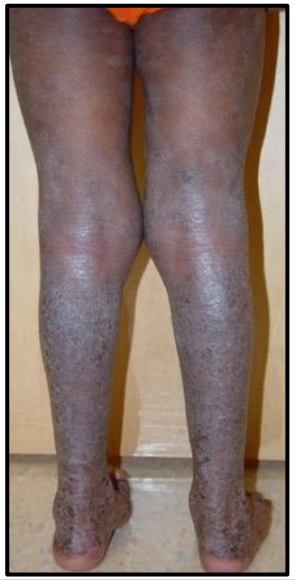


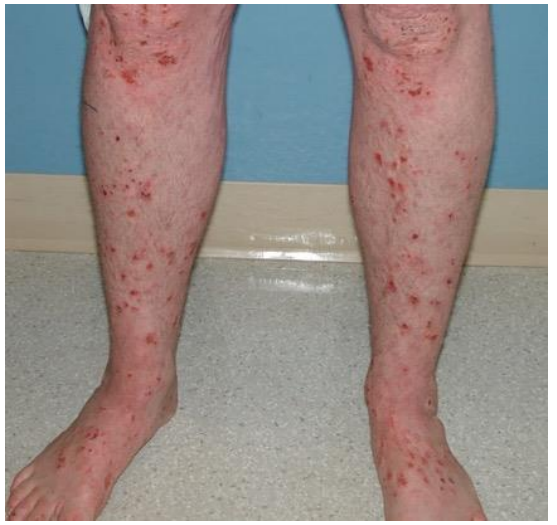












Therapeutic Considerations

- Topical corticosteroids
  - Limitation on duration of use and location
  - Risks of systemic absorption and polypharmacy
  - Topical steroid withdrawal (TSW) and flaring of disease
- Calcineurin inhibitors and crisaborole
  - Twice daily application
  - Tolerability (stinging and burning)
- Topical JAK inhibitors
  - Label- black box warning; prohibits first line use or use with biologics
  - Concern for systemic absorption and tolerability
  - Twice daily application

Optimizing Topical AD Treatment: *What do Patients Need?*

- Once-a-day
- Not a steroid
- Rapid response
  - Itch and endpoints of EASI-75 and IGA
  - Itch is early indicator of clinical response
- Tolerability- may be used on all body locations and sensitive skin
- Safe for chronic use
  - Long-term disease control is the goal
- Formulation
  - Well-tolerated, without sensitizers or associated allergic contact dermatitis

Speakers & Agenda

Ken Lock

Chief Commercial Officer

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Atopic Dermatitis: Compelling Opportunity for Roflumilast Cream

Very large, established market

- ~26 million individuals in U.S. affected
- ~26 million total prescriptions in U.S.[1] (~2x of Psoriasis)
- 12% prevalence in children[2] → need for safe/effective therapy

Significant unmet need
for safe, effective non-steroidal therapy suitable for chronic use

Roflumilast Cream

Atopic Dermatitis Profile

Closely aligned with needs of:

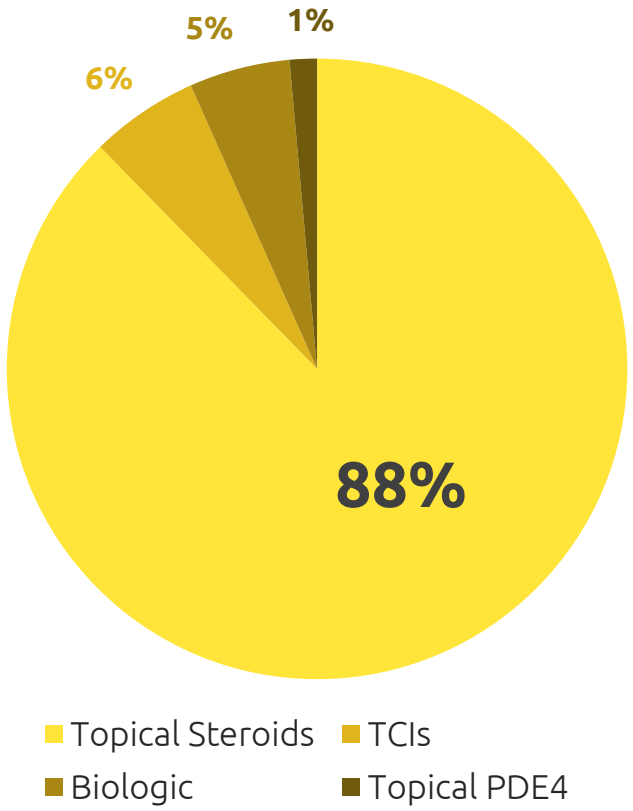
1. Physicians
2. Patients
3. Parents
4. Payors

[1]*Source: IQVIA FY 2021;* [2]*Silverberg,JI, Dermatol Clin 35 (2017) 283-289*

Presentation designed for an investor audience.

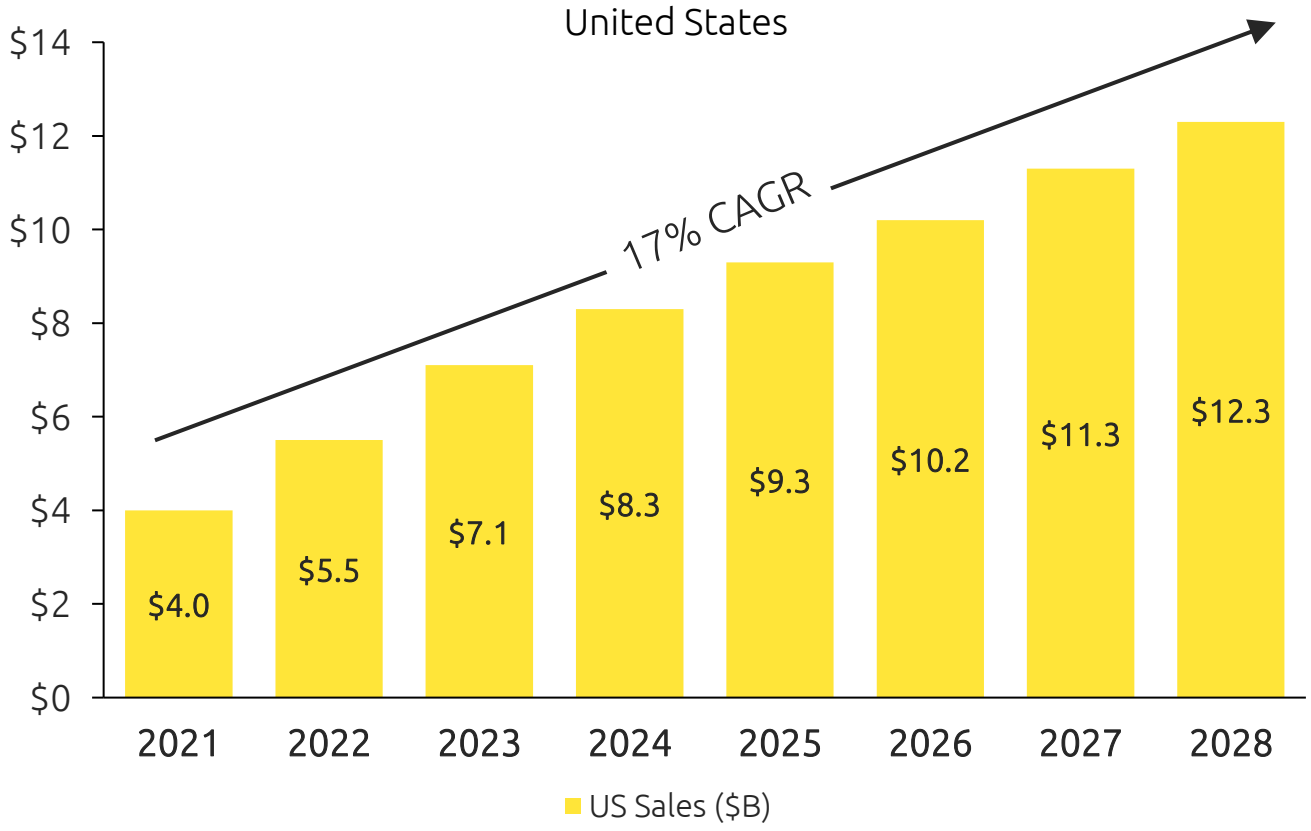
Topical Steroids Remain Standard of Care in Underserved, Rapidly Growing AD Market Segment

Total 2021 TRx of ~26 Million[1]



[1]*Source: IQVIA [Biologic = Dupixent; PDE4 = Eucrisa]; TCI = topical calcineurin inhibitor*

Atopic Dermatitis Sales[2]



[2]*Source: Evaluate Pharma; CAGR = compound annual growth rate*

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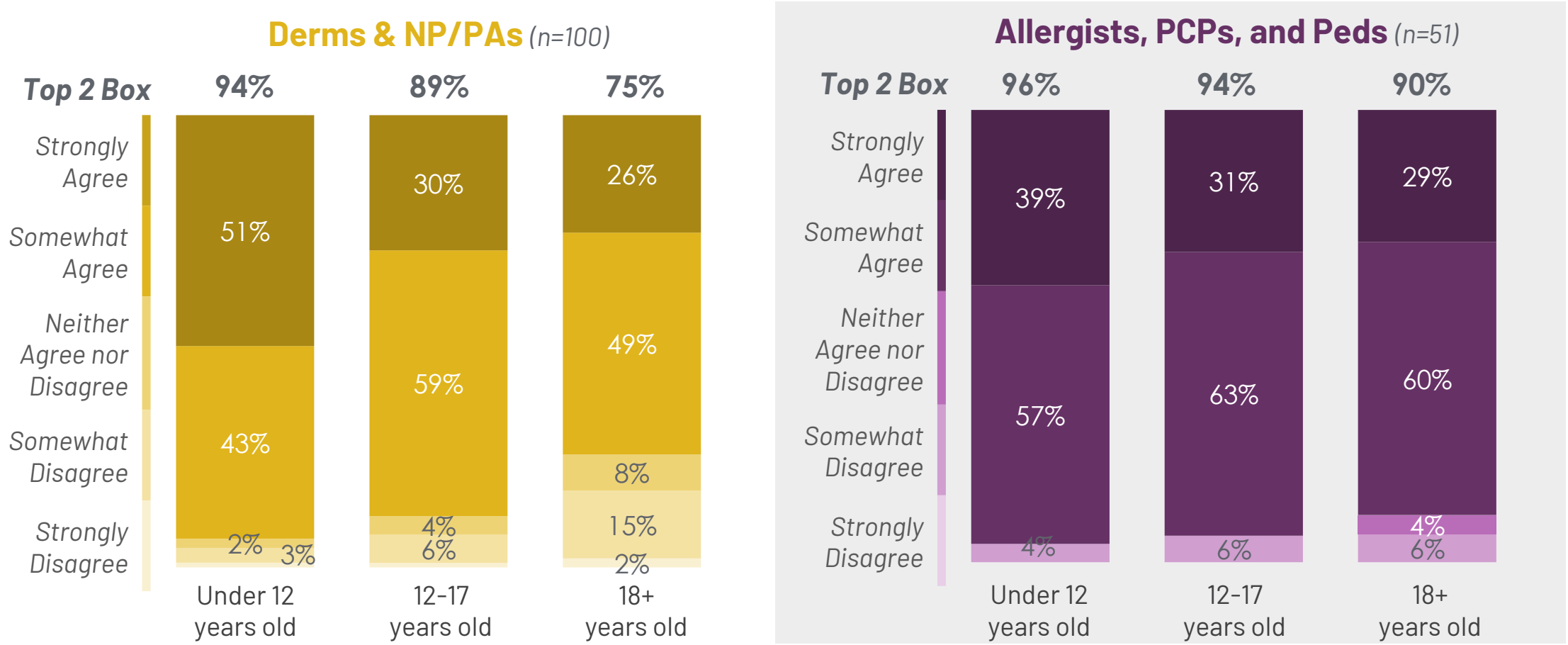
High Unmet Need for New Topical Therapies, Especially for Pediatric Patients

Unmet need with topical therapies for atopic dermatitis[1]



[1]Nov 2022 Quant Survey, The Link Group; NP = nurse practitioner; PA = physician assistant; PCP = primary care physician

Presentation designed for an investor audience.

Not All PDE4 Inhibitors (PDE4i) Are Created Equal

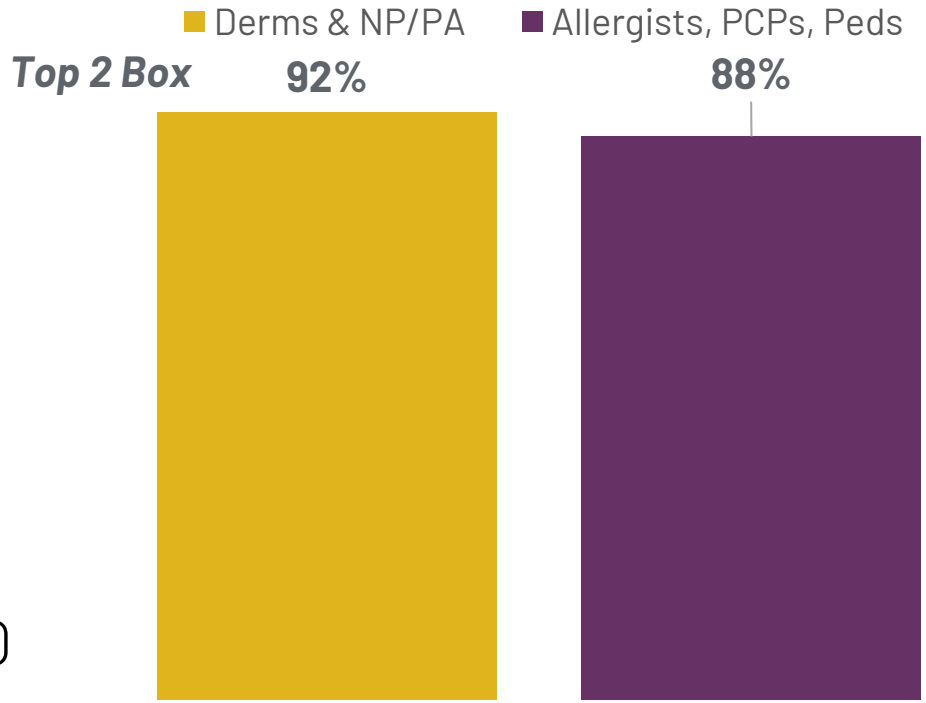
PDE4 inhibition is a validated mechanism in Atopic Dermatitis

- Safety profile well understood
- Chronic use

Roflumilast cream is the next generation topical PDE4i

- 25X to 300X more potent than other approved PDE4 inhibitors[2]
- Formulation leverages our proprietary HydroARQ Technology™

I would be **interested in a new and improved PDE4** inhibitor topical for treating AD[1]



[1]Nov 2022 Quant Survey, The Link Group [Derms & NP/PA n =100, Non-Derm n-51], those survey responses that either Strongly Agree or Somewhat Agree; [2]Dong C, et al. J Pharmacol Exp Ther 2016;358:413-422.
NP = nurse practitioner; PA = physician assistant; PCP = primary care physician; PDE4 = phosphodiesterase-4

The Importance of Vehicle in AD Treatment – Restoring the Skin Barrier

In AD, the skin barrier function is compromised, and moisture is lost from skin

Proprietary HydroARQ Technology™

Moisturizing

Non–lipid-extracting emulsifiers

No common contact irritants (propylene glycol, PEG, etc.)

Roflumilast Cream

uniquely formulated as emollient, water-based cream with favorable local tolerability

Optimized vehicle formulation may promote treatment adherence and therapeutic effect

PEG = polyethylene glycol

Thank You

Frank Watanabe
President and CEO

Lawrence Eichenfield, MD

Patrick Burnett, MD, PhD, FAAD
Chief Medical Officer

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