Roflumilast Foam 0.3% in Patients With Scalp and Body Psoriasis: Improvements in Patient-Reported Outcomes (ARRECTOR)

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- Topical roflumilast is a phosphodiesterase 4 inhibitor formulated as a water-based foam or cream
- The phase 3 ARRECTOR (NCT05028582) trial demonstrated significant improvements in efficacy of roflumilast foam 0.3% compared with vehicle in patients aged ≥12 years with psoriasis of the scalp and body[1]
  - Safety and local tolerability profiles were favorable and patients reported improvements in symptoms and aggregated PROs
  - Detailed results of the PROs are reported here

Eligibility
- Aged ≥12 years
- At least moderate scalp (S-IGA[a]) and at least mild body (B-IGA[a]) psoriasis
- BSA ≤25%; ≤20% non-scalp BSA
- PSSI ≥6
- ≥10% scalp involvement
- PASI ≥2

Randomize 2:1

Roflumilast foam 0.3% QD (N=281)

8 weeks

Vehicle foam QD (N=151)

Endpoints

Co-primary
- S-IGA[a] success at week 8
- B-IGA[a] success at week 8

Secondary/exploratory efficacy
- SI-NRS, WI-NRS, PASI, PSSI
- PSD
- Scalpdex
- DLQI

Safety and tolerability

- **PSD**: a validated 16-item questionnaire assessing various psoriasis symptoms, including itch, pain, and scaling
- **Scalpdex**: a validated 23-item survey assessing quality of life in patients with scalp dermatitis

[a]S-IGA and B-IGA are 5-point scales ranging from 0 (clear) to 4 (severe), assessing severity of psoriasis on the scalp and body, respectively.

B-IGA, Body-Investigator Global Assessment; BSA, body surface area; DLQI, Dermatology Life Quality Index; PASI, Psoriasis Area and Severity Index; PRO, patient-reported outcome; PSD, Psoriasis Symptom Diary; PSSI, Psoriasis Scalp Severity Index; QD, once daily; S-IGA, Scalp-Investigator Global Assessment; SI-NRS, Scalp Itch-Numeric Rating Scale; WI-NRS, Worst Itch-Numeric Rating Scale.

1. Gooderham M, et al. Presented at the American Academy of Dermatology Annual Meeting; March 8–12, 2024; San Diego, CA. Abstract 276.

Patients

- Demographics and baseline disease characteristics were similar across treatment groups
  - Mean (SD) age was 47.3 (14.8) years and 56.3% of patients were female
  - Most patients (81.9%) had previously used topical corticosteroids for treatment of their scalp and body psoriasis

ITT[a]	Roflumilast foam 0.3% (N=281)	Vehicle foam (N=151)
S-IGA, mean (SD)	3.1 (0.36)	3.1 (0.34)
3 (moderate), n (%)	239 (85.1)	131 (86.8)
4 (severe), n (%)	42 (14.9)	20 (13.2)
B-IGA, mean (SD)	2.8 (0.52)	2.8 (0.54)
2 (mild), n (%)	76 (27.0)	43 (28.5)
3 (moderate), n (%)	191 (68.0)	99 (65.6)
4 (severe), n (%)	14 (5.0)	9 (6.0)
BSA, %, mean (SD)	6.1 (4.3)	6.0 (4.3)
PSSI, mean (SD)	21.4 (11.1)	22.2 (11.0)
Scalpdex, mean (SD)	47.2 (22.9)	50.5 (20.4)
PSD total, mean (SD)	73.4 (40.2)	75.2 (36.9)
PSD itch/pain/scaling aggregate score, mean (SD)	15.7 (7.3)	16.2 (6.7)

Safety

- Roflumilast foam 0.3% was well tolerated, consistent with safety outcomes reported in previous trials of roflumilast cream 0.3% in patients with psoriasis[1]
- Most TEAEs were mild or moderate in both the roflumilast (96.0%) and vehicle (92.0%) groups, and 5.7% and 2.0% were considered related to study treatment, respectively
- Discontinuations of the study due to TEAEs were limited and similar between the roflumilast (n=5 [1.8%]) and vehicle (n=2 [1.3%]) groups

n (%)[b]	Roflumilast foam 0.3% (N=281)	Vehicle foam (N=151)
Patients with any TEAE	75 (26.7)	25 (16.6)
Patients with any treatment-related TEAE	16 (5.7)	3 (2.0)
Patients with any SAE[c]	2 (0.7)	1 (0.7)
Patients with any treatment-related SAE	1 (0.4)	0
Most common TEAEs by preferred term, ≥2% in either group		
Headache	13 (4.6)	3 (2.0)
Diarrhea	9 (3.2)	4 (2.6)
COVID-19	8 (2.8)	4 (2.6)
Nausea	6 (2.1)	0

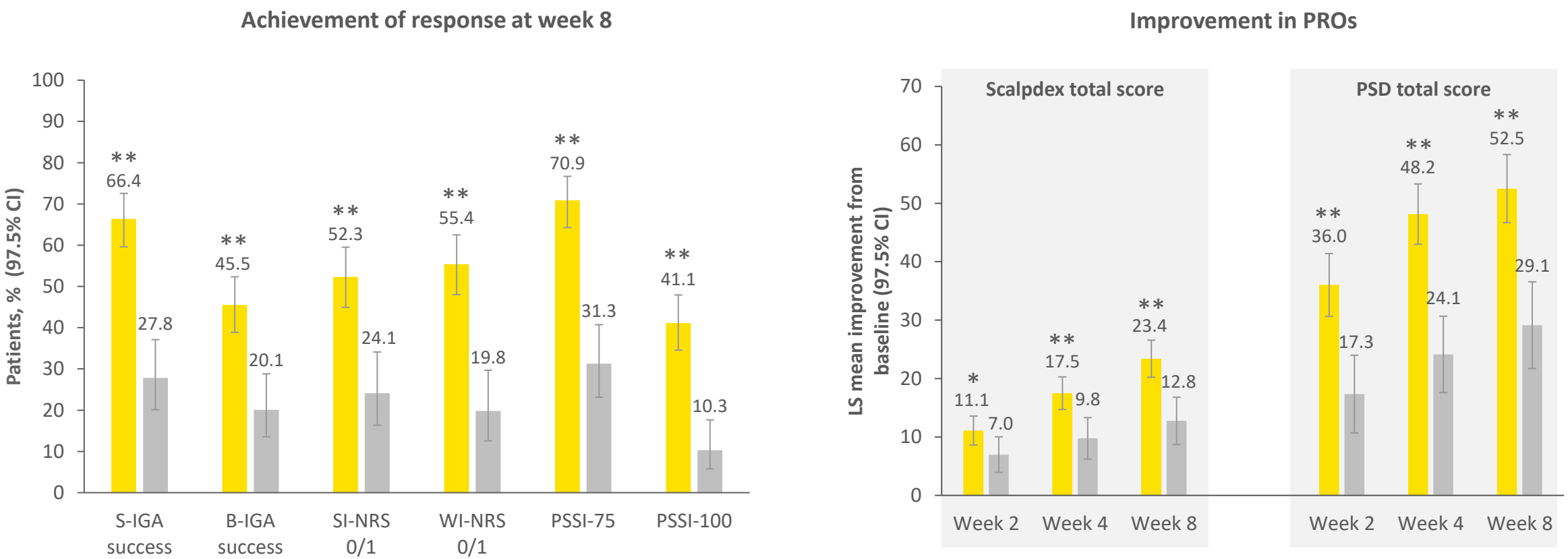
[a]All randomized patients. [b]Safety population (all patients who enrolled and received ≥1 confirmed dose of trial medication). [c]SAEs in the roflumilast group were gastritis and bipolar disorder and in the vehicle group were joint dislocation and radius fracture.

B-IGA, Body-Investigator Global Assessment; BSA, body surface area; ITT, intent-to-treat; PSD, Psoriasis Symptom Diary; PSSI, Psoriasis Scalp Severity Index; S-IGA, Scalp-Investigator Global Assessment; SAE, serious adverse event; TEAE, treatment-emergent adverse event.

1. Lebwohl M, et al. *JAMA.* 2022; 328(11):1073-1084.

Efficacy

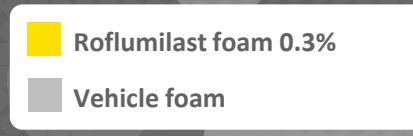
- At week 8, significantly greater (*P*<0.0001) proportions of patients in the roflumilast group achieved S-IGA success, B-IGA success, SI-NRS/WI-NRS 0/1, ≥75%/100% reduction in PSSI score (PSSI-75/100), and improvement in PROs, compared with patients in the vehicle group



**P*<0.01; ***P*<0.0001. ITT population. Multiple imputation for responses and observed data for PROs. S-IGA and B-IGA success defined as clear (0) or almost clear (1) plus ≥2-grade improvement. PSSI-75 and PSSI-100 represent ≥75% and 100% reduction in PSSI, respectively.

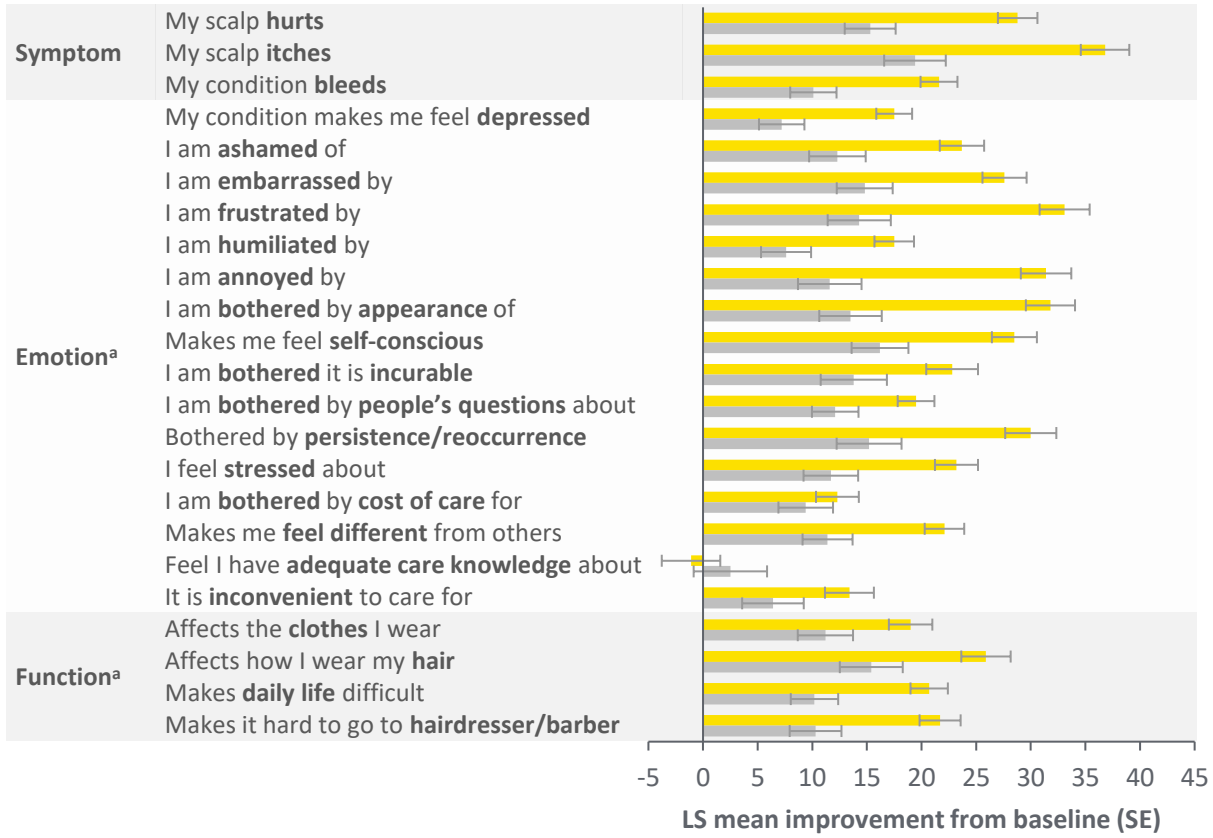
B-IGA, Body-Investigator Global Assessment; ITT, intent-to-treat; LS, least squares; PRO, patient-reported outcome; PSD, Psoriasis Symptom Diary; PSSI, Psoriasis Scalp Severity Index; S-IGA, Scalp-Investigator Global Assessment; SI-NRS, Scalp Itch-Numeric Rating Scale; WI-NRS, Worst Itch-Numeric Rating Scale.

Patient-Reported Outcome Components

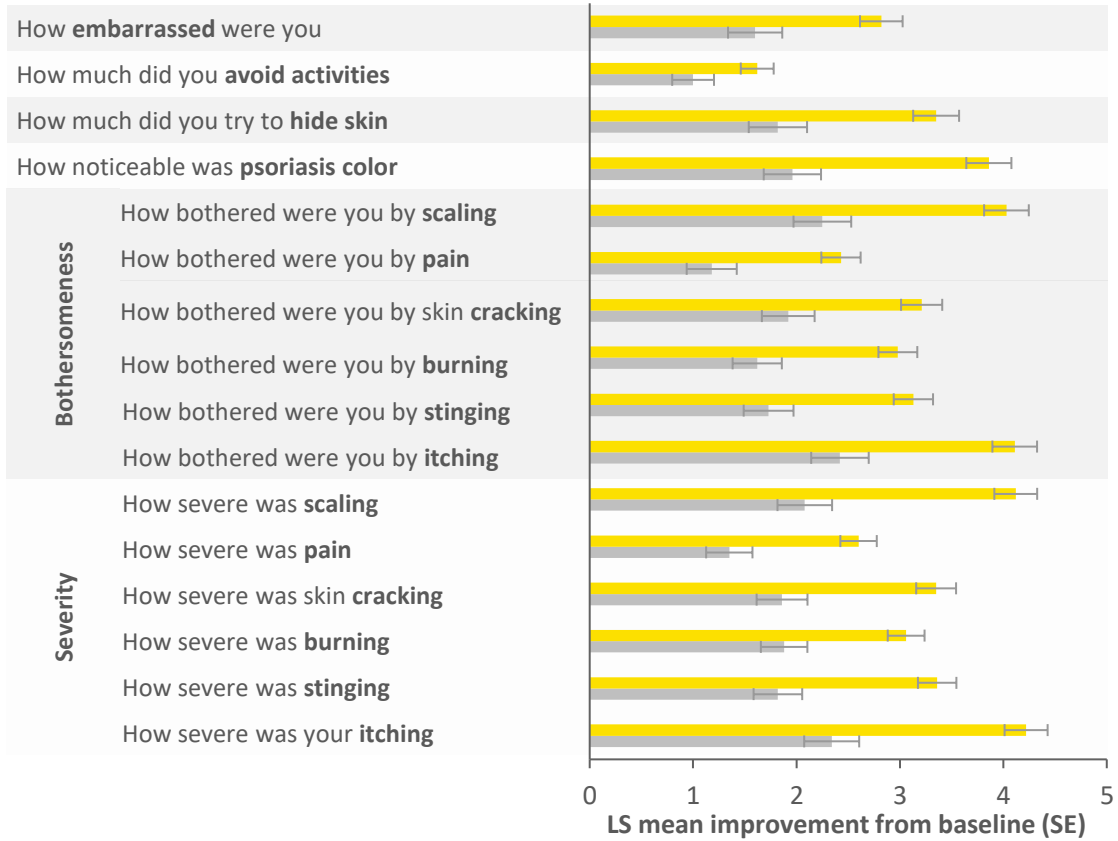


- Improvements in patient-reported Scalpdex and PSD component scores with roflumilast were observed as early as week 2 and continued through week 8

Improvement in Scalpdex scores at week 8



Improvement in PSD scores at week 8



ITT population (all randomized patients). [a]Emotion and Function statements are specially related to impact of scalp condition.
ITT, intent to treat; PSD, Psoriasis Symptom Diary.

Conclusions

Once-daily roflumilast foam 0.3% was effective and well tolerated throughout 8 weeks of treatment in patients with psoriasis of the scalp and body.

- Roflumilast demonstrated improvements in psoriasis signs and symptoms across a variety of efficacy measures
- Improvements were observed as early as 2 weeks and were maintained or improved through 8 weeks
  - This is also in line with significant improvement ($P<0.05$) in scalp itch (SI-NRS) and worst itch (WI-NRS) previously observed within 24 hours after the first application of roflumilast foam 0.3%[1]
- Safety and efficacy are consistent with previous trials of roflumilast foam 0.3%[2] and roflumilast cream 0.3%[3,4] in patients with psoriasis

Roflumilast foam 0.3% significantly improved quality of life and other PROs throughout study treatment.

- Patients reported improvements in symptoms, as well as a reduction in how psoriasis symptoms impacted daily life
- Improvements with roflumilast were observed across areas of the 23-component Scalpdex assessment, including psoriasis symptoms and mental and emotional state

PRO, patient-reported outcome; SI-NRS, Scalp Itch-Numeric Rating Scale; WI-NRS, Worst Itch-Numeric Rating Scale.

Disclosures: MG, JAL, NB, LKF, LK, WJL, and KAP are investigators and/or consultants for and have received grants/research funding and/or honoraria from Arcutis Biotherapeutics, Inc.; DK, PB, DRB, and DHC are employees of Arcutis Biotherapeutics, Inc. Additional disclosures provided on request. This study was funded by Arcutis Biotherapeutics, Inc.

Acknowledgments: Thank you to the investigators and their staff for their participation in the trials. We are grateful to the study participants and their families for their time and commitment. Writing support was provided by Kelly M. Fahrbach, PhD, CMPP, and Andrea Michels, of Ashfield MedComms, an Inizio company, and was funded by Arcutis Biotherapeutics, Inc.

1. Yosipovitch G, et al. Presented at the Winter Clinical Dermatology Conference; February 16–19, 2024; Miami, FL. 2. Kircik LH, et al. *Br J Dermatol.* 2023;189:392–399. 3. Lebwohl M, et al. *JAMA.* 2022; 328(11):1073-1084. 4. Lebwohl M, et al. Presented at the American Academy of Dermatology Annual Meeting; March 25–29, 2022; Boston, MA.