Supplemental Online Content

Zirwas MJ, Draelos ZD, DuBois J, et al. Efficacy of roflumilast foam, 0.3%, in patients with seborrheic dermatitis: a double-blind, vehicle-controlled phase 2a randomized clinical trial. *JAMA Dermatol*. Published online May 3, 2023. doi:10.1001/jamadermatol.2023.0846

- eTable 1. Excluded Medications and Treatments
- eTable 2. Investigator Global Assessment (IGA) scale
- eTable 3. Treatment Emergent Adverse Events by Severity
- **eFigure 1.** Study Design
- **eFigure 2.** Percentage of Patients Achieving Erythema Success and Erythema score of None (mITT Population)
- **eFigure 3.** Percentage of Patients Achieving Scaling Success and Scaling Score of None (mITT Population)

This supplemental material has been provided by the authors to give readers additional information about their work.

eTable 1. Excluded Medications and Treatments

Excluded Medications and Treatments	Wash out period prior to Baseline (Day 0)
Biologics	12 weeks or 5 half-lives, whichever was longer
Systemic treatment with antifungal agents,	4 weeks
corticosteroids, immunosuppressive therapies,	
retinoids, roflumilast, or apremilast	
Topical antifungals, corticosteroids, calcineurin	2 weeks
inhibitors, sulfur-based treatments, medical devices,	
crisaborole, azelaic acid, or metronidazole	
Medicated shampoos (eg, coal tar, keratolytics	2 weeks
including salicylic acid, antifungals, zinc pyrithione,	
selenium sulfide, corticosteroids, medical devices)	
Topical medications used on the scalp for conditions	4 weeks
besides seborrheic dermatitis, eg, use of topical	
minoxidil for androgenetic alopecia	
Phototherapy, tanning beds, other light emitting	4 weeks
devices	
Investigational drugs	Biologics: 12 weeks or 5 half-lives, whichever was
	longer
	Oral medications: 5 half-lives
	Topical treatments: 2 weeks

Eye drop and nasal corticosteroid preparations were allowed. Inhaled corticosteroid preparations were allowed if used for a stable condition and at a stable dose for >28 days before screening and were continued at the same dose throughout the study.

Non-medicated emollients, moisturizers, and sunscreens were allowed once daily as normally used by patients and applied at least 3 hours after application of randomized investigational product to untreated areas only.

eTable 2. Investigator Global Assessment (IGA) Scale

Score	Grade	Description
0	Completely	No erythema, no scaling (hypo-/hyper-pigmentation can be present)
	clear	
1	Almost	Residual slight erythema and/or trace amounts of scaling
	clear	
2	Mild	Pink to red color and/or slight scaling
3	Moderate	Distinct redness and/or clearly visible scaling
4	Severe	Severe erythema (intense, fiery red) and/or severe scaling (coarse, thick scales with
		flaking onto clothes or skin)

eTable 3. Treatment Emergent Adverse Events by Severity

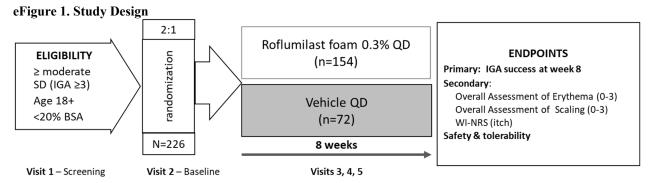
n (%)	Roflumilast foam 0.3% (n = 154)	Vehicle foam (n = 72)
Patients with any TEAE	37 (24.0)	13 (18.1)
Grade 1 (Mild)	17 (11.0)	6 (8.3)
Grade 2 (Moderate)	18 (11.7)	5 (6.9)
Grade 3 (Severe)	2 (1.3)	2 (2.8)
Grade 4 (Life-threatening consequences)	0 (0.0)	0 (0.0)
Grade 5 (Death related to AE)	0 (0.0)	0 (0.0)
Preferred term (listed alphabetically), grade	0 (0.0)	0 (0.0)
Abdominal pain lower		
Grade 2 (Moderate)	0 (0.0)	1 (1.4)
Acne cystic	0 (0.0)	1 (1.1)
Grade 1 (Mild)	1 (0.6)	0 (0.0)
Actinic keratosis	1 (0.0)	0 (0.0)
Grade 1 (Mild)	0 (0.0)	1 (1.4)
Alanine aminotransferase increased	0 (0.0)	- (***)
Grade 3 (Severe)	0 (0.0)	1 (1.4)
Anemia	0 (0.0)	1 (1.1)
Grade 3 (Severe)	0 (0.0)	1 (1.4)
Application site dysesthesia	0 (0.0)	1 (1.1)
Grade 1 (Mild)	0 (0.0)	1 (1.4)
Application site pain	0 (0.0)	1 (1.1)
Grade 1 (Mild)	1 (0.6)	1 (1.4)
Grade 2 (Moderate)	1 (0.6)	0 (0.0)
Arthralgia	1 (0.0)	0 (0.0)
Grade 2 (Moderate)	0 (0.0)	1 (1.4)
Arthropod bite	(313)	- ()
Grade 2 (Moderate)	0 (0.0)	1 (1.4)
Aspartate aminotransferase increased		/
Grade 2 (Moderate)	0 (0.0)	1 (1.4)
Atrial fibrillation	(313)	- ()
Grade 1 (Mild)	1 (0.6)	0 (0.0)
Atrophic vulvovaginitis		* (***)
Grade 2 (Moderate)	1 (0.6)	0 (0.0)
Back pain	(2-2)	(4 4)
Grade 1 (Mild)	1 (0.6)	0 (0.0)
Grade 2 (Moderate)	1 (0.6)	0 (0.0)
Blepharitis	(3-2)	
Grade 1 (Mild)	1 (0.6)	0 (0.0)
Grade 2 (Moderate)	1 (0.6)	0(0.0)
Breast tenderness		
Grade 1 (Mild)	1 (0.6)	0 (0.0)
Contact dermatitis ^a		
Grade 1 (Mild)	3 (1.9)	2 (2.8)
Cough		` ′
Grade 2 (Moderate)	1 (0.6)	0 (0.0)
COVID-19	, ,	, ,
Grade 2 (Moderate)	1 (0.6)	0 (0.0)
Dehydration		(/
Grade 1 (Mild)	1 (0.6)	1 (1.4)

Grade I (Mild) 2 (1.3) 0 (0.0) Dizzines Grade 2 (Moderate) 1 (0.6) 0 (0.0) Dyspepsia Grade 1 (Mild) 1 (0.6) 0 (0.0) Dyspepsia Grade 1 (Mild) 1 (0.6) 0 (0.0) Grade 2 (Moderate) 1 (0.6) 0 (0.0) Essential tremor Grade 2 (Moderate) 1 (0.6) 0 (0.0) Fishormyalgia 1 (0.6) 0 (0.0) Grade 2 (Moderate) 1 (0.6) 0 (0.0) Grade 2 (Moderate) 1 (0.6) 0 (0.0) Grade 2 (Moderate) 1 (0.6) 0 (0.0) Headache Grade 2 (Moderate) 1 (0.6) 0 (0.0) Headache Grade 2 (Moderate) 1 (0.6) 0 (0.0) Hordeolum 1 (0.6) 0 (0.0) Grade 2 (Moderate) 1 (0.6) 0 (0.0) Hypertalsiemia Grade 2 (Moderate) 1 (0.6) 0 (0.0) Hypertalsiemia Grade 2 (Moderate) 1 (0.6) 0 (0.0) Hypertalsiemia Grade 2 (Moderate) 1 (0.6) 0 (0.0) Hypertansion 1 (0.6) 0 (0.0) Hypertansion 1 (0.6) 0 (0.0) Grade 3 (Severe) 1 (0.6) 0 (0.0) Insomnia Grade 2 (Moderate) 1 (0.6) 0 (0.0) Insomnia Grade 2 (Moderate) 1 (0.6) 0 (0.0) Migraine Grade 2 (Moderate) 1 (0.6) 0 (0.0) Migraine Grade 2 (Moderate) 1 (0.6) 0 (0.0) Milia Grade 1 (Mild) 1 (0.6) 0 (0.0) Milia Grade 1 (Mild) 1 (0.6) 0 (0.0) Nusuele strain Grade 2 (Moderate) 1 (0.6) 0 (0.0) Nasul congestion Grade 1 (Mild) 1 (0.6) 0 (0.0) Nasul congestion Grade 1 (Mild) 1 (0.6) 0 (0.0) Nasul congestion Grade 2 (Moderate) 1 (0.6) 0 (0.0) Nasul congestion Grade 1 (Mild) 1 (0.6) 0 (0.0) Seborrheic dematitis Grade 2 (Moderate) 1 (0.6) 0 (0.0) Seborrheic dematitis Grade 2 (Moderate) 1 (0.6) 0 (0.0) Seborrheic dematitis Grade 2 (Moderate) 1 (0.6) 0 (0.0) Seborrheic dematitis Grade 2 (Moderate) 1 (0.6) 0 (0.0) Seborrheic dematitis Grade 2 (Moderate) 0 (0.0) 1 (1.4) Seborrheic dematitis Grade 2 (Moderate) 1 (0.6) 0 (0.0) Seborrheic dematitis Grade 1 (Mild) 1 (0.6) 0 (0.0) Seborrheic dematitis Grade 1 (Mild) 1 (0.6) 0 (0.0) Seborrheic dematitis Grade 2 (Moderate) 0 (0.0) 0 (0.0)	Diarrhea		
Dizzines Grade 2 (Moderate)		2 (1.3)	0 (0.0)
Grade 2 (Moderate)		= (===)	(818)
Dyspesia Grade 1 (Mild)		1 (0.6)	0 (0.0)
Dyspnea			
Dyspinea Grade 1 (Mild)		1 (0.6)	0 (0.0)
Grade 2 (Moderate) 1 (0.6) 0 (0.0) Essential tremor Grade 2 (Moderate) 1 (0.6) 0 (0.0) Fibromyalgia Grade 2 (Moderate) 1 (0.6) 0 (0.0) Gastroenteritis Grade 2 (Moderate) 1 (0.6) 0 (0.0) Gastroenteritis Grade 2 (Moderate) 1 (0.6) 0 (0.0) Gastroenteritis Grade 2 (Moderate) 1 (0.6) 0 (0.0) Headache Grade 1 (Mild) 1 (0.6) 0 (0.0) Hordeolum Grade 2 (Moderate) 1 (0.6) 0 (0.0) Hyperkalaemia Grade 3 (Severe) 1 (0.6) 0 (0.0) Hypertkalemia Grade 3 (Severe) 1 (0.6) 0 (0.0) Hypertkalemia Grade 2 (Moderate) 1 (0.6) 0 (0.0) Hypertapion Grade 2 (Moderate) 1 (0.6) 0 (0.0) Hypertapion Grade 2 (Moderate) 1 (0.6) 0 (0.0) Hypertapion Grade 3 (Severe) 1 (0.6) 0 (0.0) Hillian Grade 1 (Mild) 3 (1.9) 1 (1.4) Migraine Grade 2 (Moderate) 1 (0.6) 0 (0.0) Milia Grade 3 (Severe) 1 (0.6) 0 (0.0) Milia Grade 1 (Mild) 1 (0.6) 0 (0.0) Milia Grade 2 (Moderate) 1 (0.6) 0 (0.0) Muscolaryngitis Grade 2 (Moderate) 1 (0.6) 0 (0.0) Nasal congestion Grade 2 (Moderate) 1 (0.6) 0 (0.0) Nasuea Grade 1 (Mild) 1 (0.6) 0 (0.0) Nasuea Grade 1 (Mild) 1 (0.6) 0 (0.0) Nasuea Grade 1 (Mild) 1 (0.6) 0 (0.0) Pyrexia Grade 2 (Moderate) 3 (1.9) 0 (0.0) Pyrexia Grade 2 (Moderate) 1 (0.6) 0 (0.0) Susuea Grade 1 (Mild) 1 (0.6) 0 (0.0) Susuea Grade 2 (Moderate) 1 (0.6) 0 (0.0) Susuea Grade 2 (Moderate) 1 (0.6) 0 (0.0) Seborrheic dermatitis Grade 2 (Moderate) 1 (0.6) 0 (0.0) Skin sear contracture Grade 1 (Mild) 1 (0.6) 0 (0.0) Skin sear contracture Grade 1 (Mild) 1 (0.6) 0 (0.0) Skin sear contracture Grade 1 (Mild) 1 (0.6) 0 (0.0)			
Grade 2 (Moderate)		1 (0.6)	0 (0.0)
Essential tremor Grade 2 (Moderate)			
Fibromyalgia Grade 2 (Moderate) 1 (0.6) 0 (0.0) 1 (0.6) 0 (0.0) Headache Grade 1 (Mild) Grade 2 (Moderate) 1 (0.6) 1 (0.6) 1 (0.6) 0 (0.0) Hordeolum Grade 2 (Moderate) 1 (0.6) 1 (Essential tremor		
Grade 2 (Moderate)	Grade 2 (Moderate)	1 (0.6)	0 (0.0)
Gastroenteritis Grade 2 (Moderate) Headache Grade 1 (Mild) Grade 2 (Moderate) Hordeolum Grade 2 (Moderate) Hyperkalaemia Grade 3 (Severe) Hypertansion Grade 2 (Moderate) Honomia Grade 2 (Moderate) Hypertansion Grade 2 (Moderate) Hypertansion Grade 2 (Moderate) Hypertansion Grade 2 (Moderate) Hypertansion Grade 2 (Moderate) I (0.6) Insomnia Grade 1 (Mild) Ligament sprain Grade 2 (Moderate) Grade 2 (Moderate) Hypertansion Grade 2 (Moderate) I (0.6) I (0.0) I (1.4) Migraine Grade 2 (Moderate) Grade 3 (Severe) I (0.6) Milia Grade 1 (Mild) I (0.6) Muscle strain Grade 2 (Moderate) Grade 2 (Moderate) I (0.6) Muscle strain Grade 2 (Moderate) Grade 1 (Mild) I (0.6) Nasal congestion Grade 1 (Mild) Nasopharyngitis Grade 2 (Moderate) Grade 1 (Mild) Nasopharyngitis Grade 2 (Moderate) Grade 1 (Mild) Nasopharyngitis Grade 2 (Moderate) I (0.6) O (0.0) Nausea Grade 1 (Mild) I (0.6) O (0.0) Nausea Grade 1 (Mild) I (0.6) O (0.0) Nausea Grade 1 (Mild) I (0.6) O (0.0) Nausea Grade 2 (Moderate) I (0.6) O (0.0) Nausea Grade 1 (Mild) I (0.6) O (0.0) Nausea Grade 1 (Mild) I (0.6) O (0.0) Seborrheic dermatitis Grade 2 (Moderate) I (0.6) O (0.0) Seborrheic dermatitis Grade 2 (Moderate) I (0.6) O (0.0) Seborrheic dermatitis Grade 2 (Moderate) I (0.6) O (0.0) Seborrheic dermatitis Grade 1 (Mild) I (0.6) O (0.0) Seborrheic dermatitis Grade 1 (Mild) I (0.6) O (0.0) Seborrheic dermatitis Grade 1 (Mild) I (0.6) O (0.0) Seborrheic dermatitis Grade 1 (Mild) I (0.6) O (0.0)	Fibromyalgia		
Grade 2 (Moderate)	Grade 2 (Moderate)	1 (0.6)	0 (0.0)
Headache	Gastroenteritis		
Grade 1 (Mild) 1 (0.6) 0 (0.0) Grade 2 (Moderate) 1 (0.6) 0 (0.0) Hordeolum 1 (0.6) 0 (0.0) Hyperkalaemia 0 0 (0.0) Grade 3 (Severe) 1 (0.6) 0 (0.0) Hypertension 1 (0.6) 0 (0.0) Grade 2 (Moderate) 1 (0.6) 0 (0.0) Insomnia 0 1 (1.4) Grade 2 (Moderate) 0 (0.0) 1 (1.4) Migraine 0 0 (0.0) Grade 2 (Moderate) 1 (0.6) 0 (0.0) Mila 0 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Muscle strain 0 0 (0.0) Grade 2 (Moderate) 1 (0.6) 0 (0.0) Nassal congestion 1 (0.6) 0 (0.0) Oracle 1 (Mild) 1 (0.6) 0 (0.0) Nausea 0 0 Grade 2 (Moderate) 1 (0.6) 0 (0.0) Nausea 0 0 Grade 1 (Mild) 1 (0.6) 0 (0.0)	Grade 2 (Moderate)	1 (0.6)	0 (0.0)
Grade 2 (Moderate)	Headache		
Hordeolum Grade 2 (Moderate) 1 (0.6) 0 (0.0) Hypertalaemia Grade 3 (Severe) 1 (0.6) 0 (0.0) Hypertansion Grade 2 (Moderate) 1 (0.6) 0 (0.0) Insomnia Grade 1 (Mild) 3 (1.9) 1 (1.4) Ligament sprain Grade 2 (Moderate) 0 (0.0) 1 (1.4) Migraine Grade 2 (Moderate) 1 (0.6) 0 (0.0) Milia Grade 3 (Severe) 1 (0.6) 0 (0.0) Milia Grade 1 (Mild) 1 (0.6) 0 (0.0) Muscle strain Grade 2 (Moderate) 1 (0.6) 0 (0.0) Massol congestion Grade 1 (Mild) 1 (0.6) 0 (0.0) Nasopharyngitis Grade 2 (Moderate) 3 (1.9) 0 (0.0) Nausea Grade 1 (Mild) 1 (0.6) 0 (0.0) Nausea Grade 1 (Mild) 1 (0.6) 0 (0.0) Oropharyngeal pain Grade 1 (Mild) 1 (0.6) 0 (0.0) Oropharyngeal pain Grade 2 (Moderate) 1 (0.6) 0 (0.0) Seborrheic dermatitis Grade 2 (Moderate) 1 (0.6) 0 (0.0) Seborrheic dermatitis Grade 2 (Moderate) 0 (0.0) 1 (1.4) Sinusitis Grade 1 (Mild) 1 (0.6) 0 (0.0) Skin scar contracture Grade 1 (Mild) 1 (0.6) 0 (0.0) Skin scar contracture Grade 1 (Mild) 1 (0.6) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0)	` '		
Grade 2 (Moderate)		1 (0.6)	0 (0.0)
Hyperkalaemia Grade 3 (Severe) 1 (0.6) 0 (0.0) Hypertension Grade 2 (Moderate) 1 (0.6) 0 (0.0) Insomnia Grade 1 (Mild) 3 (1.9) 1 (1.4) Ligament sprain Grade 2 (Moderate) 0 (0.0) 1 (1.4) Migraine Grade 2 (Moderate) 1 (0.6) 0 (0.0) Grade 3 (Severe) 1 (0.6) 0 (0.0) Milia Grade 1 (Mild) 1 (0.6) 0 (0.0) Muscle strain Grade 2 (Moderate) 1 (0.6) 0 (0.0) Muscle strain Grade 1 (Mild) 1 (0.6) 0 (0.0) Nasal congestion Grade 1 (Mild) 1 (0.6) 0 (0.0) Nasopharyngitis Grade 2 (Moderate) 3 (1.9) 0 (0.0) Nausea Grade 1 (Mild) 1 (0.6) 0 (0.0) Oropharyngeal pain Grade 1 (Mild) 1 (0.6) 0 (0.0) Oropharyngeal pain Grade 2 (Moderate) 1 (0.6) 0 (0.0) Pyrexia Grade 2 (Moderate) 1 (0.6) 0 (0.0) Pyrexia Grade 2 (Moderate) 1 (0.6) 0 (0.0) Seborrheic dermatitis Grade 2 (Moderate) 1 (0.6) 0 (0.0) Simusitis Grade 1 (Mild) 1 (0.6) 0 (0.0) Simusitis Grade 1 (Mild) 1 (0.6) 0 (0.0) Skin scar contracture Grade 1 (Mild) 1 (0.6) 0 (0.0) Toothache Toothache			
Grade 3 (Severe) 1 (0.6) 0 (0.0) Hypertension 0 0 (0.0) Grade 2 (Moderate) 1 (0.6) 0 (0.0) Insomnia 3 (1.9) 1 (1.4) Ligament sprain 0 (0.0) 1 (1.4) Grade 2 (Moderate) 0 (0.0) 1 (1.4) Migraine 1 (0.6) 0 (0.0) Grade 2 (Moderate) 1 (0.6) 0 (0.0) Milia 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Muscle strain 0 (0.0) 0 (0.0) Muscle strain 0 (0.0) 0 (0.0) Masol congestion 0 (0.0) 0 (0.0) Grade 2 (Moderate) 1 (0.6) 0 (0.0) Nasopharyngitis 0 (0.0) 0 (0.0) Grade 2 (Moderate) 3 (1.9) 0 (0.0) Nausea 0 (0.0) 0 (0.0) Orpharyngeal pain 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Pyrexia 0 (0.0) 0 (0.0) Grade 2 (Moderate) </td <td></td> <td>1 (0.6)</td> <td>0 (0.0)</td>		1 (0.6)	0 (0.0)
Hypertension Grade 2 (Moderate) 1 (0.6) 0 (0.0) Insomnia Grade 1 (Mild) 3 (1.9) 1 (1.4) Ligament sprain Grade 2 (Moderate) 0 (0.0) 1 (1.4) Migraine Grade 2 (Moderate) 1 (0.6) 0 (0.0) Grade 3 (Severe) 1 (0.6) 0 (0.0) Milia Grade 1 (Mild) 1 (0.6) 0 (0.0) Muscle strain Grade 2 (Moderate) 1 (0.6) 0 (0.0) Masal congestion Grade 1 (Mild) 1 (0.6) 0 (0.0) Nasopharyngitis Grade 2 (Moderate) 3 (1.9) 0 (0.0) Nausea Grade 1 (Mild) 1 (0.6) 0 (0.0) Nausea Grade 1 (Mild) 1 (0.6) 0 (0.0) Oropharyngeal pain Grade 1 (Mild) 1 (0.6) 0 (0.0) Oropharyngeal pain Grade 2 (Moderate) 1 (0.6) 0 (0.0) Seborrheic dermatitis Grade 2 (Moderate) 1 (0.6) 0 (0.0) Seborrheic dermatitis Grade 2 (Moderate) 0 (0.0) 1 (1.4) Sinusitis Grade 1 (Mild) 1 (0.6) 0 (0.0) Skin scar contracture Grade 1 (Mild) 1 (0.6) 0 (0.0) Sunburn Grade 1 (Mild) 1 (0.6) 0 (0.0) Toothache			
Grade 2 (Moderate) 1 (0.6) 0 (0.0) Insomnia 3 (1.9) 1 (1.4) Grade 1 (Mild) 3 (1.9) 1 (1.4) Ligament sprain		1 (0.6)	0 (0.0)
Insomnia Grade 1 (Mild) 3 (1.9) 1 (1.4) Ligament sprain Grade 2 (Moderate) 0 (0.0) 1 (1.4) Migraine Grade 2 (Moderate) 1 (0.6) 0 (0.0) Grade 3 (Severe) 1 (0.6) 0 (0.0) Milia Grade 1 (Mild) 1 (0.6) 0 (0.0) Muscle strain Grade 2 (Moderate) 1 (0.6) 0 (0.0) Nasal congestion Grade 1 (Mild) 1 (0.6) 0 (0.0) Nasopharyngitis Grade 2 (Moderate) 3 (1.9) 0 (0.0) Nausea Grade 1 (Mild) 1 (0.6) 0 (0.0) Oropharyngeal pain Grade 1 (Mild) 1 (0.6) 0 (0.0) Orpharyngeal pain Grade 2 (Moderate) 1 (0.6) 0 (0.0) Pyrexia Grade 2 (Moderate) 1 (0.6) 0 (0.0) Seborrheic dermatitis Grade 2 (Moderate) 1 (0.6) 0 (0.0) Seborrheic dermatitis Grade 2 (Moderate) 1 (0.6) 0 (0.0) Sinusitis Grade 1 (Mild) 1 (0.6) 0 (0.0) Skin sear contracture Grade 1 (Mild) 1 (0.6) 0 (0.0) Sunburn Grade 1 (Mild) 1 (0.6) 0 (0.0) Toothache			
Grade 1 (Mild) 3 (1.9) 1 (1.4) Ligament sprain 0 (0.0) 1 (1.4) Migraine 1 (0.6) 0 (0.0) Grade 2 (Moderate) 1 (0.6) 0 (0.0) Milia 0 (0.0) 0 (0.0) Milia 0 (0.0) 0 (0.0) Muscle strain 0 (0.0) 0 (0.0) Mascl congestion 0 (0.0) 0 (0.0) Nasal congestion 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Nausea 0 (0.0) 0 (0.0) Grade 2 (Moderate) 3 (1.9) 0 (0.0) Nausea 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Pyrexia 0 (0.0) 0 (0.0) Grade 2 (Moderate) 1 (0.6) 0 (0.0) Seborrheic dermatitis 0 (0.0) 1 (1.4) Sinusitis 0 (0.0) 1 (1.4) Sinusitis 0 (0.0) 0 (0.0) Skin scar contracture 0 (0.0) 0 (0.0) Skin scar contracture		1 (0.6)	0 (0.0)
Ligament sprain 0 (0.0) 1 (1.4) Migraine 0 (0.0) 0 (0.0) Grade 2 (Moderate) 1 (0.6) 0 (0.0) Grade 3 (Severe) 1 (0.6) 0 (0.0) Milia 0 (0.0) 0 (0.0) Muscle strain 0 (0.0) 0 (0.0) Muscle strain 0 (0.0) 0 (0.0) Grade 2 (Moderate) 1 (0.6) 0 (0.0) Nasal congestion 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Nausea 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Orpharyngeal pain 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Seborrheic dermatitis 0 (0.0) 0 (0.0) Seborrheic dermatitis 0 (0.0) 1 (1.4) Sinusitis 0 (0.0) 0 (0.0) Skin scar contracture 0 (0.0) 0 (0.0) Skin scar contracture 0 (0.0) 0 (0.0) Sunburn 0 (0.0) 0 (0.0)			
Grade 2 (Moderate) 0 (0.0) 1 (1.4) Migraine 1 (0.6) 0 (0.0) Grade 3 (Severe) 1 (0.6) 0 (0.0) Milia 1 (0.6) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Muscle strain 0 (0.0) 0 (0.0) Grade 2 (Moderate) 1 (0.6) 0 (0.0) Nasal congestion 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Nausea 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Oropharyngeal pain 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Pyrexia 0 (0.0) 0 (0.0) Seborrheic dermatitis 0 (0.0) 0 (0.0) Seborrheic dermatitis 0 (0.0) 1 (1.4) Sinusitis 0 (0.0) 0 (0.0) Skin scar contracture 0 (0.0) 0 (0.0) Skin scar contracture 0 (0.0) 0 (0.0) Sunburn 0 (0.0) 0 (0.0) To		3 (1.9)	1 (1.4)
Migraine 1 (0.6) 0 (0.0) Grade 2 (Moderate) 1 (0.6) 0 (0.0) Milia 1 (0.6) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Muscle strain 0 (0.0) 0 (0.0) Grade 2 (Moderate) 1 (0.6) 0 (0.0) Nasal congestion 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Nausea 0 (0.0) 0 (0.0) Grade 2 (Moderate) 3 (1.9) 0 (0.0) Oropharyngeal pain 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Pyrexia 0 (0.0) 0 (0.0) Grade 2 (Moderate) 0 (0.0) 1 (1.4) Sinusitis 0 (0.0) 1 (1.4) Grade 1 (Mild) 1 (0.6) 0 (0.0) Skin scar contracture 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Sunburn 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0)		0 (0 0)	1.4.4
Grade 2 (Moderate) 1 (0.6) 0 (0.0) Grade 3 (Severe) 1 (0.6) 0 (0.0) Milia		0 (0.0)	1 (1.4)
Grade 3 (Severe) 1 (0.6) 0 (0.0) Milia 1 (0.6) 0 (0.0) Muscle strain 0 (0.0) 0 (0.0) Grade 2 (Moderate) 1 (0.6) 0 (0.0) Nasal congestion 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Nausea 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Orpharyngeal pain 0 (0.0) 0 (0.0) Grade 2 (Moderate) 1 (0.6) 0 (0.0) Seborrheic dermatitis 0 (0.0) 1 (1.4) Sinusitis 0 (0.0) 1 (1.4) Sinusitis 0 (0.0) 0 (0.0) Skin scar contracture 0 (0.0) 0 (0.0) Sunburn 0 (0.0) 0 (0.0) Toothache 0 (0.0) 0 (0.0)		1 (0 6)	0 (0 0)
Milia 1 (0.6) 0 (0.0) Muscle strain 0 (0.0) 0 (0.0) Grade 2 (Moderate) 1 (0.6) 0 (0.0) Nasal congestion 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Nausca 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Oropharyngeal pain 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Pyrexia 0 (0.0) 0 (0.0) Grade 2 (Moderate) 1 (0.6) 0 (0.0) Seborrheic dermatitis 0 (0.0) 1 (1.4) Sinusitis 0 (0.0) 1 (1.4) Grade 1 (Mild) 1 (0.6) 0 (0.0) Skin scar contracture 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Sunburn 0 (0.0) 0 (0.0) Toothache 0 (0.0) 0 (0.0)			
Grade 1 (Mild) 1 (0.6) 0 (0.0) Muscle strain 0 (0.0) 0 (0.0) Sade 2 (Moderate) 1 (0.6) 0 (0.0) Nasal congestion 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Nausea 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Oropharyngeal pain 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Seborrheic dermatitis 0 (0.0) 1 (1.4) Grade 2 (Moderate) 0 (0.0) 1 (1.4) Sinusitis 0 (0.0) 1 (1.4) Grade 1 (Mild) 1 (0.6) 0 (0.0) Skin scar contracture 0 (0.0) 0 (0.0) Sunburn 0 (0.0) 0 (0.0) Toothache 0 (0.0) 0 (0.0)		1 (0.6)	0 (0.0)
Muscle strain 1 (0.6) 0 (0.0) Nasal congestion 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Nasopharyngitis 0 (0.0) 0 (0.0) Grade 2 (Moderate) 3 (1.9) 0 (0.0) Nausea 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Pyrexia 0 (0.0) 0 (0.0) Grade 2 (Moderate) 1 (0.6) 0 (0.0) Seborrheic dermatitis 0 (0.0) 1 (1.4) Grade 2 (Moderate) 0 (0.0) 1 (1.4) Sinusitis 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Skin scar contracture 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Sunburn 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0)		1 (0.6)	0 (0 0)
Grade 2 (Moderate) 1 (0.6) 0 (0.0) Nasal congestion 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Nasopharyngitis 0 (0.0) 0 (0.0) Grade 2 (Moderate) 1 (0.6) 0 (0.0) Nausea 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Pyrexia 0 (0.0) 0 (0.0) Grade 2 (Moderate) 1 (0.6) 0 (0.0) Seborrheic dermatitis 0 (0.0) 1 (1.4) Grade 2 (Moderate) 0 (0.0) 1 (1.4) Sinusitis 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Skin scar contracture 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Sunburn 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0)		1 (0.0)	0 (0.0)
Nasal congestion 1 (0.6) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Nasopharyngitis 3 (1.9) 0 (0.0) Grade 2 (Moderate) 1 (0.6) 0 (0.0) Oropharyngeal pain 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Pyrexia 0 (0.0) 0 (0.0) Seborrheic dermatitis 0 (0.0) 1 (1.4) Grade 2 (Moderate) 0 (0.0) 1 (1.4) Sinusitis 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Skin scar contracture 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Sunburn 0 (0.0) 0 (0.0) Toothache 0 (0.0) 0 (0.0)		1 (0.6)	0 (0 0)
Grade 1 (Mild) 1 (0.6) 0 (0.0) Nasopharyngitis 3 (1.9) 0 (0.0) Grade 2 (Moderate) 3 (1.9) 0 (0.0) Nausea 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Pyrexia 0 (0.0) 0 (0.0) Grade 2 (Moderate) 1 (0.6) 0 (0.0) Seborrheic dermatitis 0 (0.0) 1 (1.4) Grade 2 (Moderate) 0 (0.0) 1 (1.4) Sinusitis 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Skin scar contracture 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Sunburn 0 (0.0) 0 (0.0) Toothache 0 (0.0) 0 (0.0)		1 (0.0)	0 (0.0)
Nasopharyngitis 3 (1.9) 0 (0.0) Nausea 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Oropharyngeal pain 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Pyrexia 0 (0.0) 0 (0.0) Grade 2 (Moderate) 0 (0.0) 1 (1.4) Sinusitis 0 (0.0) 1 (1.4) Grade 1 (Mild) 1 (0.6) 0 (0.0) Skin scar contracture 0 (0.0) 0 (0.0) Sunburn 0 (0.0) 0 (0.0) Toothache 1 (0.6) 0 (0.0)		1 (0.6)	0 (0 0)
Grade 2 (Moderate) 3 (1.9) 0 (0.0) Nausea 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Oropharyngeal pain 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Seborrheic dermatitis 0 (0.0) 1 (1.4) Grade 2 (Moderate) 0 (0.0) 1 (1.4) Sinusitis 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Skin scar contracture 0 (0.0) 0 (0.0) Sunburn 0 (0.0) 0 (0.0) Toothache 0 (0.0) 0 (0.0)		1 (0.0)	0 (0.0)
Nausea 1 (0.6) 0 (0.0) Oropharyngeal pain 1 (0.6) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Pyrexia 1 (0.6) 0 (0.0) Grade 2 (Moderate) 0 (0.0) 1 (1.4) Sinusitis 0 (0.0) 1 (1.4) Grade 1 (Mild) 1 (0.6) 0 (0.0) Skin scar contracture 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Sunburn 0 (0.0) 0 (0.0) Toothache 1 (0.6) 0 (0.0)		3 (1.9)	0 (0 0)
Grade 1 (Mild) 1 (0.6) 0 (0.0) Oropharyngeal pain 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Pyrexia 0 (0.0) 0 (0.0) Seborrheic dermatitis 0 (0.0) 1 (1.4) Grade 2 (Moderate) 0 (0.0) 1 (1.4) Sinusitis 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Skin scar contracture 0 (0.0) 0 (0.0) Sunburn 0 (0.0) 0 (0.0) Toothache 1 (0.6) 0 (0.0)		3 (1.3)	0 (0.0)
Oropharyngeal pain 1 (0.6) 0 (0.0) Pyrexia 0 (0.0) 0 (0.0) Grade 2 (Moderate) 1 (0.6) 0 (0.0) Seborrheic dermatitis 0 (0.0) 1 (1.4) Grade 2 (Moderate) 0 (0.0) 1 (1.4) Sinusitis 0 (0.0) 0 (0.0) Skin scar contracture 0 (0.0) 0 (0.0) Sunburn 0 (0.0) 0 (0.0) Toothache 1 (0.6) 0 (0.0)		1 (0.6)	0 (0.0)
Grade 1 (Mild) 1 (0.6) 0 (0.0) Pyrexia 0 (0.0) Grade 2 (Moderate) 1 (0.6) 0 (0.0) Seborrheic dermatitis 0 (0.0) 1 (1.4) Sinusitis 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Skin scar contracture 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Sunburn 0 (0.0) 0 (0.0) Toothache 1 (0.6) 0 (0.0)		- (010)	(818)
Pyrexia 1 (0.6) 0 (0.0) Seborrheic dermatitis 0 (0.0) 1 (1.4) Grade 2 (Moderate) 0 (0.0) 1 (1.4) Sinusitis 0 (0.0) 0 (0.0) Skin scar contracture 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Sunburn 0 (0.0) 0 (0.0) Toothache 0 (0.0) 0 (0.0)		1 (0.6)	0 (0.0)
Grade 2 (Moderate) 1 (0.6) 0 (0.0) Seborrheic dermatitis 0 (0.0) 1 (1.4) Grade 2 (Moderate) 0 (0.0) 1 (1.4) Sinusitis 0 (0.0) 0 (0.0) Skin scar contracture 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Sunburn 0 (0.0) 0 (0.0) Toothache 0 (0.0) 0 (0.0)			
Seborrheic dermatitis 0 (0.0) 1 (1.4) Grade 2 (Moderate) 0 (0.0) 1 (1.4) Sinusitis 0 (0.0) 0 (0.0) Skin scar contracture 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Sunburn 0 (0.0) 0 (0.0) Toothache 0 (0.0) 0 (0.0)		1 (0.6)	0 (0.0)
Grade 2 (Moderate) 0 (0.0) 1 (1.4) Sinusitis		. ,	
Sinusitis 1 (0.6) 0 (0.0) Skin scar contracture 1 (0.6) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Sunburn 0 (0.0) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Toothache 0 (0.0) 0 (0.0)	Grade 2 (Moderate)	0 (0.0)	1 (1.4)
Skin scar contracture 1 (0.6) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Toothache	Sinusitis		
Grade 1 (Mild) 1 (0.6) 0 (0.0) Sunburn 1 (0.6) 0 (0.0) Grade 1 (Mild) 1 (0.6) 0 (0.0) Toothache	Grade 1 (Mild)	1 (0.6)	0 (0.0)
Sunburn 1 (0.6) 0 (0.0) Toothache 0 (0.0)	Skin scar contracture		
Grade 1 (Mild) 1 (0.6) 0 (0.0) Toothache		1 (0.6)	0 (0.0)
Toothache			
		1 (0.6)	0 (0.0)
Grade 2 (Moderate) 1 (0.6) 0 (0.0)			
	Grade 2 (Moderate)	1 (0.6)	0 (0.0)

Tooth fracture		
Grade 2 (Moderate)	2 (1.3)	0 (0.0)
Urinary tract infection		
Grade 1 (Mild)	1 (0.6)	0 (0.0)
Grade 2 (Moderate)	1 (0.6)	0 (0.0)
Viral upper respiratory tract infection		
Grade 1 (Mild)	1 (0.6)	0 (0.0)

Abbreviations: AE, adverse event; TEAE, treatment-emergent adverse event.

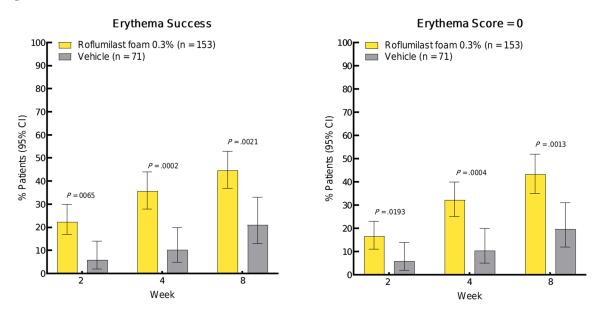
aContact dermatitis was reported to be unrelated to treatment in all cases and no cases caused interruption of drug application; 2 cases were reported as "poison ivy rash" by investigators.



IGA success = clear or almost clear.

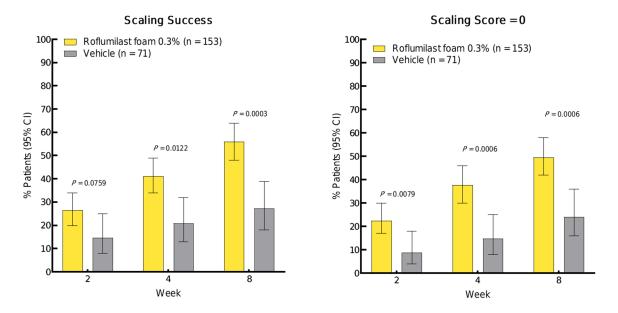
BSA, body surface area; IGA, Investigator Global Assessment; QD, once daily; WI-NRS, Worst Itch-Numeric Rating Scale.

eFigure 2. Percentage of Patients Achieving Erythema Success and Erythema score of None (mITT Population)



Erythema success = erythema score of 0 or 1 (on a scale of 0 [none] to 3 [severe]) plus a 2-grade improvement from baseline

eFigure 3. Percentage of Patients Achieving Scaling Success and Scaling Score of None (mITT Population)



Scaling success = scaling score of 0 or 1 (on a scale of 0 [none] to 3 [severe]) plus a 2-grade improvement from baseline