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ORIGINAL ARTICLE

Dermal Safety of Tapinarof Cream 1%: Results From 4 Phase 1 Trials

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ABSTRACT

Background: Tapinarof (VTAMA®; Dermavant Sciences, Inc.) is a novel, non-steroidal, topical, aryl hydrocarbon receptor agonist, FDA approved for psoriasis treatment and under investigation for atopic dermatitis treatment as a 1% cream formulation for once-daily (QD) application.

Objective: Evaluate cumulative skin irritation, sensitization, and photoallergic and phototoxic potential of tapinarof cream 1% across a range of dosing frequencies and conditions.

Methods: We conducted 4 randomized, controlled, phase 1 trials of topical tapinarof cream 1% vs vehicle or other appropriate controls in healthy adults. Cumulative skin irritation was assessed following QD application for 21 days under fully occlusive patch conditions. Contact sensitization, photoallergenicity, and phototoxicity were assessed under semi-occlusive patch conditions. The contact sensitization and photoallergenicity trials used an induction phase of repeated applications followed by a 2-week rest period and a 1-time challenge, with rechallenge if responses indicated sensitization/photosensitization; the phototoxicity trial comprised a single application. Ultraviolet A and B irradiation was used to assess photoallergenicity/toxicity.

Results: 376 participants were randomized across the 4 trials. In the cumulative irritation trial, tapinarof cream 1% QD was classified as having a slight potential for very mild cumulative irritation under the exaggerated test conditions of repeated dosing for 21 days. There was no evidence of sensitization, photosensitization, or phototoxicity. Tapinarof was well tolerated and there was a low discontinuation rate across all trials.

Conclusions: Tapinarof cream 1% was well tolerated, non-sensitizing, non-phototoxic, and non-photoallergic, with no evidence of clinically meaningful cumulative skin irritation in 4 dermal safety trials in healthy adults.

Trial Registration: IND 104601

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INTRODUCTION

Plaque psoriasis and atopic dermatitis (AD) are chronic, immune-mediated skin diseases associated with a high burden of disease as well as a reduced quality of life.[1] Although multiple options are available for the treatment of plaque psoriasis and AD, there is a need for efficacious topical therapies that can be used without restrictions on body surface area, anatomic locations, or duration of treatment.[2-4]

Tapinarof (VTAMA®; Dermavant Sciences, Inc., USA) is a first-in-class, non-steroidal, topical, aryl hydrocarbon receptor agonist approved by the Food and Drug Administration (FDA) for the treatment of plaque psoriasis in adults, and under investigation for the treatment of psoriasis in children and atopic dermatitis in adults and children.[4-7] Tapinarof specifically binds to and activates the aryl hydrocarbon receptor, a ligand-dependent transcription factor with roles in the regulation of cytokine and skin barrier protein expression, and antioxidant activity.[4,8,9] The efficacy and safety of tapinarof cream 1% QD have been demonstrated in a comprehensive phase 3 psoriasis pivotal trial program (PSOARING 1, 2, and 3),[10,11] and are being further evaluated in a pivotal clinical trial program in adults and children with AD (ADORING 1, 2, and 3).

The US Food and Drug Administration (FDA) provides recommendations for evaluating the potential for skin irritation and sensitization with new topical therapies as well as phototoxic and photoallergic potential.[12,13] Here, we report results from 4 randomized, controlled, phase 1 trials evaluating the dermal safety of topical tapinarof cream 1%. These trials were conducted to comprehensively assess the dermal safety of topical tapinarof cream 1% compared with appropriate controls, as required by the FDA for all topical investigational drugs. The formulation and concentration of tapinarof used in all 4 of the present trials is the same as that used in the pivotal phase 3 psoriasis trial program (PSOARING) and the

pivotal phase 3 AD trial program (ADORING). However, the exaggerated test conditions and dosing frequencies used in these 4 phase 1 trials vary.

MATERIALS AND METHODS

Trial Designs and Participants

Four separate, single-center, randomized, controlled, within-participant comparison trials were conducted to evaluate cumulative skin irritation, skin sensitization, potential for photoallergy, and potential for phototoxicity with topical administration of tapinarof cream 1% compared with vehicle and other relevant controls in healthy volunteers (Table 1).

Fully occlusive patch conditions were used in the first trial investigating cumulative skin irritation to assess worst-case conditions. Semi-occlusive patch conditions were used in the other 3 trials, and dermal responses were evaluated during the challenge phase for the skin sensitization and photoallergy trials and in the post-dose phase for the phototoxicity trial. A semi-occlusive patch was used to limit topical irritation during the induction phase and maximize successful completion of the subsequent challenge.

Approximately 0.2 mL of tapinarof cream 1%, vehicle or controls were dispensed onto patches and applied to test application sites on the infrascapular area of the back by study personnel in each trial. In all studies, assessments of skin irritation were conducted by a trained evaluator who was blinded to treatment. In addition to dermal safety assessments, the incidence of adverse events (AEs) was reported.

Participants were adults of any Fitzpatrick skin type or race in the skin sensitization and cumulative skin irritation trials; and adults with Fitzpatrick skin types I, II, or III in the phototoxicity and photoallergy trials. Key exclusion criteria for all trials were (i) a diagnosis or history of psoriasis, active AD/eczema, or visible skin disease at the application site; and (ii) use of systemic or topical corticosteroids within 3 weeks prior to day 1.

All participants provided written informed consent and trials

TABLE 1.

Methods and Designs of Four Phase 1 Single-Center, Randomized, Controlled, Evaluator-Blinded, Within-Participant Comparison Trials of Tapinarof Cream 1% QD in Healthy Adults

	Cumulative Irritation	Contact Sensitization	Photoallergenicity	Phototoxicity
Objective to determine the potential of tapinarof cream 1% QD to cause/induce:	Skin irritation after repeated topical applications to healthy skin	Sensitization by repeated topical application to normal/ healthy skin	Photoallergic skin reaction to controlled photopatch testing procedure	Phototoxic reaction to topical application followed by light exposure
Participants randomized/ completed (n)	45/40	240/230	58/54	33/33
Interventions	Tapinarof cream 1% Vehicle 0.9% saline negative control 0.2% SLS positive control	Tapinarof cream 1% Vehicle 0.9% saline	Tapinarof cream 1% Vehicle	Tapinarof cream 1% Vehicle
Topical delivery to infrascapular area of the back	Occlusive patch	Semi-occlusive	Semi-occlusive	Semi-occlusive
Dosing frequency	QD for 21 consecutive days	3 times/week for 3 weeks for 24 hours (induction) **Rest period** 10-14 days **Challenge** Single application (48-hour patch) of trial products used in induction	2 times/week for 3 weeks for 24 hours (induction) **Rest period** 10-17 days **Challenge** Double set of patches (irradiated and non-irradiated) evaluated for up to 72 hours post-irradiation	Single topical application 24 hours (day 1) Double set of patches (irradiated and non-irradiated) evaluated for up to 48 hours post-irradiation
Irradiation	None	None	**Day 1:** UV MED determination **After induction:** 2 times MED (full Xenon lamp spectrum) **After challenge:** 6 J/cm2 UVA, then 0.5 times MED of UVA/UVB (full spectrum)	**Day 1:** UV MED determination **Day 2:** 16 J/cm2 UVA, then 0.5 times MED of UVA/UVB (full spectrum)

MED, minimal erythema dose; QD, once daily; SLS, sodium lauryl sulfate; UVA, ultraviolet A; UVB, ultraviolet B.

were conducted in accordance with local and regulatory requirements and the principles set forth in the Declaration of Helsinki and the International Conference on Harmonization Guidelines for Good Clinical Practice.

Cumulative Skin Irritation Trial

Following once-daily application for 21 days of tapinarof cream 1%, vehicle, 0.2% sodium lauryl sulfate (SLS, positive control), and 0.9% saline (negative control) to randomly assigned test application sites (Table 1), dermal reactions at application sites were assessed clinically using a visual scale that rated the degree of erythema, edema, and other signs of cutaneous irritation (Supplementary Table S1). The primary outcome was mean cumulative irritation score (mean of observed scores for day 2 through day 22). The total cumulative irritation score for each participant and treatment was also calculated as the sum of irritation scores, and interpreted using a normalized scale ranging from 0 to 630, where higher scores denote greater potential for cumulative irritation under test conditions (Supplementary Table S2).[14]

Skin Sensitization Trial

This trial comprised an induction phase of repeated applications of tapinarof cream 1%, vehicle, and 0.9% saline; a rest period; and a single application challenge phase (Table 1). Dermal sensitization potential was determined by the Investigator based on specific scoring criteria derived from observed responses after challenge (Supplementary Table S1). A rechallenge was performed if a cutaneous response observed during the challenge phase indicated possible sensitization, or at the discretion of the investigator. Mean and total irritancy scores were also assessed, during the induction phase, using the same scale used in the cumulative skin irritation trial (Supplementary Table S1).

Photoallergy Trial

This trial comprised an induction phase of repeated applications of tapinarof cream 1% and vehicle, followed by a rest period and a single-application challenge phase, with irradiation of selected sites performed to assess photosensitization (Table 1). Sites were clinically examined for dermal reactions after the induction phase at approximately 48 and 72 hours post-irradiation and after the challenge phase application at approximately 24, 48, and 72 hours post-irradiation using a visual scale that rated the degree of erythema, edema, and other signs of cutaneous irritation (Supplementary Table S3). A rechallenge was performed if a cutaneous response was observed during the challenge phase that indicated possible photosensitization, or at the discretion of the Investigator.

Phototoxicity Trial

Following a single application of tapinarof cream 1% and vehicle (day 1) and irradiation of selected sites (day 2; Table 1), application sites and the untreated (irradiated) control site were evaluated on days 3 and 4, approximately 24 and 48 hours after irradiation, respectively, using the same visual scale used in the photoallergy trial (Supplementary Table S3).

Statistical Analysis

For all studies, assigned scores were summarized using descriptive statistics. For the cumulative skin irritation trial, pairwise comparisons for cumulative irritancy scores were conducted using Fisher's protected least significant differences with a 2-way analysis of variance (ANOVA), including main effects of participant and product, without interaction. For the phototoxicity trial, pairwise comparisons for average numerical dermal response score (sum of erythema and edema) at 24 and 48 hours after irradiation were conducted with an ANOVA using Fisher's least significant differences, with effects of participant and treatment.

TABLE 2.

Mean and Total Irritation Scores (Cumulative Skin Irritation Trial, n=39) for Tapinarof Cream 1% and Controls Under Test Conditions

Group	Mean Irritation Score	Total Irritation Score	
	Mean (SD)	Normalized Total Score[16]	Mean (SD)
Tapinarof cream 1%	0.92 (0.66)*†‡	193 (Slight potential for very mild cumulative irritation under test conditions)	19.28 (13.83)*†‡
Vehicle	0.02 (0.06)‡	5 (No significant irritation under test conditions)	0.49 (1.35)‡
Saline 0.9%	0.10 (0.24)‡	20 (No significant irritation under test conditions)	2.03 (5.12)‡
SLS 0.2%	2.45 (0.43)	514 (Strong potential for mild-to-moderate cumulative irritation under test conditions)	51.38 (9.06)
P-value for overall F-test	<0.0001	--	<0.0001

*$P<0.0001$ vs vehicle; †$P<0.0001$ vs saline 0.9%; ‡$P<0.0001$ vs SLS 0.2%
Grading scale for the normalized total score is shown in Supplementary Table S2.
SD, standard deviation; SLS, sodium lauryl sulfate.

RESULTS

Participant Disposition and Demographics

Participant disposition is shown in Supplementary Table S4. Across the 4 trials, a total of 376 participants were randomized, with a low discontinuation rate (5.1%). In the cumulative skin irritation and skin sensitization trials, all 15 discontinuations were due to voluntary withdrawal by the participants. Among the participants who discontinued from the photoallergy trial, 2 discontinued due to AEs that were not deemed to be treatment related and 2 voluntarily withdrew from the trial. There were no discontinuations in the phototoxicity trial. Baseline demographics and characteristics are shown in Supplementary Table S5.

Cumulative Skin Irritation

Of 57 screened participants, 45 were randomized. At baseline, the mean age was 49.9 years and the majority of participants had Fitzpatrick skin types III to V ([III (22.2%), IV (31.1%), and V (26.7%)] (Supplementary Table S5).

From baseline through day 22 (n=21 applications), the mean irritation score was 0.92 for tapinarof cream 1%, 0.02 for vehicle (P<0.0001 vs tapinarof), and 0.10 for 0.9% saline (P<0.0001 vs tapinarof) (Table 2). The total irritation score was 19.28 for tapinarof cream 1%, 0.49 for vehicle (P<0.0001 vs tapinarof), and 2.03 for 0.9% saline (P<0.0001 vs tapinarof). The positive control, 0.2% SLS, had significantly higher mean irritation (2.45) and total irritation (51.38) scores compared with tapinarof, vehicle, and 0.9% saline (P<0.0001 for all comparisons). The normalized total score, which is measured on a scale of 0 to 630, was 193 for tapinarof cream 1% (slight potential for very mild cumulative irritation under test conditions), 5 for vehicle (no significant irritation under test conditions), 20 for 0.9% saline (no significant irritation under test conditions), and 514 for 0.2% SLS (strong potential for mild-to-moderate cumulative irritation under test conditions; Supplementary Table S2).[16]

Skin Sensitization

Of 260 screened participants, 240 were randomized. At baseline, the mean age was 54.6 years and the majority of participants had Fitzpatrick skin type IV (37.9%) or V (35.0%) (Supplementary Table S5).

During the challenge phase, no reactions experienced by participants were classified as indicative of sensitization to tapinarof cream 1% (Table 3). For tapinarof cream 1%, 38.7% of participants (89/230) had a maximum score of 1, 1.7% (4/230) had a maximum score of 2, and 0.4% (1/230) had a maximum score of 3. No participant required a rechallenge phase patch application.

Photoallergy

Of 64 screened participants, 58 were randomized. At baseline, the mean age was 50.4 years and all participants had Fitzpatrick skin types II or III, with 58.6% having type III (Supplementary Table S5).

During the challenge phase, no evidence of photosensitization was observed. The maximum dermal response observed was a score of 1 (mild erythema/edema) for sites treated with tapinarof cream 1% or vehicle at 24, 48, and 72 hours for both irradiated and non-irradiated sites (Table 4). The maximum dermal response score with tapinarof cream 1% and vehicle was mainly attributed to properties of the vehicle, as supported by similar scores between the irradiated and non-irradiated test sites.

Phototoxicity

Of 39 screened participants, 33 were randomized. At baseline, the mean age was 48.5 years, and all participants had Fitzpatrick skin types II or III, with 75.8% having type III (Supplementary Table S5).

No evidence of phototoxicity was observed. The mean dermal response score (average of 24 and 48 hours) was lower in the tapinarof cream 1% irradiated site compared with the vehicle irradiated site and the untreated irradiated site (0.14, 0.17, and 0.20, respectively); however, these differences were not statistically significant (Table 4). At 24 hours post-irradiation, a maximum dermal response score of 1 (mild erythema/edema) was observed for 27.3% (9/33) of participants at the tapinarof cream 1% sites. At 48 hours post-irradiation, no participants had a maximal dermal response score of ≥1 at the tapinarof cream 1% sites compared with 1 participant (3.0%) at the vehicle irradiated site and 1 participant (3.0%) at the untreated irradiated site. All 3 irradiated sites had significantly higher mean dermal

TABLE 3.

Sensitization Potential of Tapinarof Cream 1% and Controls (Skin Sensitivity Trial, n=230)

Participants With	Tapinarof Cream 1%	Vehicle	Saline 0.9%
Sensitization,* n (%) [95% Confidence limit]	0 (0.0) [0, 1.59]	0 (0.0) [0, 1.59]	0 (0.0) [0, 1.59]
Maximum Score of 1,† n (%) [95% Confidence Limit]	89 (38.7) [32.37, 45.32]	44 (19.1) [14.26, 24.82]	7 (3.0) [1.23, 6.17]
Maximum Score of 2,‡ n (%) [95% Confidence Limit]	4 (1.7) [0.48, 4.39]	3 (1.3) [0.27, 3.76]	0 (0.0) [0, 1.59]
Maximum Score of 3,§ n (%) [95% Confidence Limit]	1 (0.4) [0.01, 2.40]	0 (0.0) [0, 1.59]	0 (0.0) [0, 1.59]

*Cutaneous response observed in the challenge phase indicates possible sensitization based on grade ≥3 score [Supplementary Table S2], and/or at the discretion of the Investigator.

†1 = Minimal erythema; barely perceptible.

‡2 = Definite erythema, readily visible; or minimal edema; or minimal papular response.

§3 = Erythema and papules, definite edema, erythema, edema, and papules, vesicular eruption and strong reaction spreading beyond test site.

TABLE 4.

Dermal Response Scores of Tapinarof Cream 1% and Vehicle in the Photoallergy (n=54) and Phototoxicity (n=33) Trials

Response[a] Post-irradiation	Tapinarof Cream 1%		Vehicle		Untreated
	Irradiated	Non-irradiated	Irradiated	Non-irradiated	Irradiated
Photoallergy trial (n=54)					
Sensitized,[b] N	0	0	0	0	0
0 hours, n (%)					
0/0 (0)	43 (79.6)	44 (81.5)	52 (96.3)	53 (98.1)	54 (100.0)
0/1 (1)	11 (20.4)	10 (18.5)	2 (3.7)	1 (1.9)	0 (0.0)
24 hours, n (%)					
0/0 (0)	43 (79.6)	47 (87.0)	48 (88.9)	50 (92.6)	50 (92.6)
0/1 (1)	11 (20.4)	7 (13.0)	6 (11.1)	4 (7.4)	4 (7.4)
48 hours, n (%)					
0/0 (0)	45 (83.3)	48 (88.9)	50 (92.6)	52 (96.3)	52 (96.3)
0/1 (1)	9 (16.7)	6 (11.1)	4 (7.4)	2 (3.7)	2 (3.7)
72 hours, n (%)					
0/0 (0)	50 (92.6)	50 (92.6)	51 (94.4)	51 (94.4)	54 (100.0)
0/1 (1)	4 (7.4)	4 (7.4)	3 (5.6)	3 (5.6)	0 (0.0)
Phototoxicity trial (n=33)					
0 hours (day 2), n (%)					
0	29 (87.9)	29 (87.9)	31 (93.9)	31 (93.9)	33 (100.0)
1	4 (12.1)	4 (12.1)	2 (6.1)	2 (6.1)	0 (0.0)
24 hours (day 3), n (%)					
0	24 (72.7)	33 (100.0)	23 (69.7)	31 (93.9)	21 (63.6)
1	9 (27.3)	0 (0.0)	10 (30.3)	2 (6.1)	12 (36.4)
48 hours (day 4), n (%)					
0	33 (100.0)	33 (100.0)	32 (97.0)	32 (97.0)	32 (97.0)
1	0 (0.0)	0 (0.0)	1 (3.0)	1 (3.0)	1 (3.0)
Average of 24 and 48 hours					
n	33	33	33	33	33
Mean (SD)	0.14 (0.23)	0 (0.0)	0.17 (0.27)	0.05 (0.19)	0.20 (0.28)
P-values[c]					
vs tapinarof cream 1%, irradiated	--	0.0014	0.4695	0.0314	0.1492
vs tapinarof cream 1%, non-irradiated	--	--	0.0001	0.2785	<0.0001
vs vehicle cream, irradiated	--	--	--	0.0044	0.4695
vs vehicle cream, non-irradiated	--	--	--	--	0.0004

[a]Response score is the sum of erythema and edema. Scores for erythema: 0 = No reaction; 1 = Mild, but definite erythema; 2 = Moderate erythema; 3 = Marked/severe erythema. Scores for edema: 0 = No reaction; 1 = Mild, but definite edema; 2 = Definite edema with erosion/vesiculation.
[b]Sensitization classification according to the Principal Investigator based on challenge and re-challenge.
P-values are from an analysis of variance of the average numerical score (sum of erythema and edema) at 24 and 48 hours (days 3 and 4), with effects of participant and treatment, using Fisher's least significant differences.

response scores than the non-irradiated sites. Statistically significant differences in the mean dermal response score were observed between tapinarof cream 1% irradiated and tapinarof cream 1% non-irradiated sites (*P*=0.0014), as well as between vehicle irradiated and vehicle non-irradiated sites (*P*=0.0044).

Additional Safety Measures

A low incidence of AEs was reported across the 4 trials (Table 5). All AEs occurred in the photoallergy trial and none was considered related to tapinarof cream 1%. Four participants (6.9%) in the photoallergy trial experienced 5 treatment-emergent AEs (TEAEs); 2 were mild in severity (urinary tract infection and headache), 1 was moderate (nausea), and 2 were severe (nephrolithiasis and ligament sprain). Two participants discontinued the study due to AEs.

TABLE 5.

Treatment-Emergent Adverse Events				
	Phase 1 Trial			
Participants, n (%)	Cumulative Irritation (n=45)	Contact Sensitization (n=240)	Photoallergenicity (n=58)	Phototoxicity (n=33)
TEAE	0 (0.0)	0 (0.0)	4 (6.9)	0 (0.0)
Mild	0 (0.0)	0 (0.0)	2 (3.4)	0 (0.0)
Moderate	0 (0.0)	0 (0.0)	1 (1.7)	0 (0.0)
Severe	0 (0.0)	0 (0.0)	2 (3.4)	0 (0.0)
TEAE related to trial drug	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Trial discontinuation due to AE	0 (0.0)	0 (0.0)	2 (3.4)	0 (0.0)

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

DISCUSSION

This series of dermal safety trials with tapinarof cream 1% in healthy volunteers was conducted in accordance with FDA guidelines for new topical drugs.[12,13] The trials demonstrated no evidence of clinically significant cumulative irritation, sensitization, or phototoxic or photoallergic potential with tapinarof. In the cumulative skin irritation trial, tapinarof was classified as having "slight potential for very mild cumulative irritation" with repeated dosing for 21 days under exaggerated conditions with occlusive dressing of approximately 0.2 mL of tapinarof cream 1% per patch. In the skin sensitization trial, tapinarof was non-sensitizing, with no participants requiring re-challenge. No photoallergic responses were observed in the photoallergy trial and there was no indication of phototoxicity in the phototoxicity trial, suggesting a low risk for photoallergy and phototoxicity with application of tapinarof under standard-use conditions.

Overall, a low incidence of AEs was reported across the trials and none was considered related to tapinarof. This is consistent with the safety profile observed in 18 tapinarof clinical trials in over 2200 participants, including the phase 2b psoriasis[15] and atopic dermatitis[7] trials, two 12-week pivotal psoriasis trials (PSOARING 1 and 2),[10] and the PSOARING 3 long-term extension trial,[11] in which tapinarof cream 1% QD was well tolerated and showed no increased risk of AEs with long-term use.[11] Notably, the dermal safety trials reported here found no evidence of drug sensitization. In phase 3 pivotal trials conducted in adults with psoriasis, treatment-related TEAE of contact dermatitis was reported in 3.8% (PSOARING 1) and 4.7% (PSOARING 2) of adults receiving tapinarof cream 1%.[10]

Interestingly, in participants experiencing contact dermatitis, the distribution was limited to focal areas and was not uniformly seen at all sites of application of tapinarof. This latter observation, together with the fact that reapplication of tapinarof after resolution of contact dermatitis did not uniformly re-elicit this AE, suggests that the observed dermatitis does not represent allergic contact dermatitis to tapinarof. This is further supported by the results of the skin sensitization study in which no positive patch tests results were observed in any of the healthy volunteers. This highlights the importance of conducting dermal safety trials in healthy adults and indicates that the AE of contact dermatitis observed in PSOARING 1 and 2 may have been associated with the underlying pathophysiological processes of psoriasis. Alternatively, the contact dermatitis events observed in the PSOARING phase 3 program may represent a phenotypic switch. This switch has been previously reported in patients with plaque psoriasis treated with biologic therapy. It has been proposed that targeting T helper (Th) 1 and Th17 cytokines could induce a shift to a Th2-dominated immune response and result in an atopic dermatitis phenotype.[16]

Tapinarof cream 1% once-daily may provide a first-in-class, non-steroidal, topical therapeutic option for patients with psoriasis and AD that is highly effective and well tolerated. The safety profile of tapinarof represents a substantial advantage over other topical products such as corticosteroids, retinoids, and vitamin D analogs, which have restrictions on duration of use and site/extent of application.[2,3] In adults with plaque psoriasis, tapinarof cream 1% QD demonstrated highly statistically significant and clinically meaningful efficacy in two identical, double-blind, randomized, controlled, phase 3 trials (PSOARING 1 and 2),[10] and a long-term, open-label, phase 3 trial (PSOARING 3).[11] A clinical program comprising 2 pivotal phase 3 trials (ADORING 1 and 2) and a long-term extension trial (ADORING 3) is planned to evaluate the safety and efficacy of tapinarof cream 1% QD in children and adults with AD.

CONCLUSION

In conclusion, these dermal safety trials demonstrate no evidence of clinically meaningful cumulative irritation, sensitization, or phototoxic or photoallergic potential with tapinarof cream 1% in healthy adults.

DISCLOSURES

All the authors are employees of Dermavant Science, Inc.

SUPPLEMENTAL MATERIAL

For supplementary material, visit https://jddonline.com/articles/dermatology/S1545961622P1085X or scan:

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