STUDY SYNOPSIS

Title of Study: A MULTI-CENTER, DOUBLE-BLIND, RANDOMIZED, PLACEBO CONTROLLED, PARALLEL-GROUP STUDY, COMPARING TEST TOPICAL PRODUCT TO BRAND TOPICAL PRODUCT AND BOTH ACTIVE TREATMENTS TO A PLACEBO CONTROL IN THE TREATMENT OF SCALP PSORIASIS

Treatment Duration: The study treatment period will last for 28 days (4 weeks). A window ± 4 days will be considered acceptable for each scheduled visit following the first visit. Expected study duration is 6 to 9 months.

Test Product: Test topical product

Reference Product: Brand topical product

Placebo Control: Vehicle of the test topical product

Dose and Mode of Administration: Randomized subjects will apply a thin layer of IP, which should be gently rubbed to the affected area(s) of the scalp, once daily, preferably in the evening, for approximately 4 weeks. The maximum weekly dose of IP should not exceed 100 g

Objectives: To evaluate the therapeutic equivalence and safety of Test topical product and Brand topical product in the treatment of scalp psoriasis

To demonstrate the superiority of the efficacy of the test and reference products over that of the placebo control in the treatment of scalp psoriasis.

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Design: Subjects in this randomized, double-blind, placebo controlled, parallel-group, multiple-center study will be randomly assigned in a 2:2:1 ratio to treatment with the test product, reference product or placebo control, respectively.

Clinical Evaluations will be performed at:

Subjects will have the following clinic visits:

Visit 1/Day 1: Baseline

Visit 2/Day 14 (± 3 days)

Visit 3/Day 28 (± 4 days): End of Treatment/Early Discontinuation

A window ± 4 days will be considered acceptable for each scheduled visit following the first visit. An Unscheduled Visit is allowed at any time, for any reason, if in the Principal Investigator's opinion it is warranted. If a Subject is discontinued from the study during an Unscheduled Visit, the Unscheduled Visit will be referred to as an Early Discontinuation Visit and all procedures scheduled for Visit 3 will be performed. If the Unscheduled Visit is not an Early Discontinuation Visit (i.e., the Subject will continue to take part in the study), then all procedures will be performed and treated

as an interim visit, with the exception of the collection of Investigational Product and Subject diaries from Subjects.

The treatment area of enrolled subjects will be assessed at all clinic visits, using the PGA to evaluate disease severity within the treatment area and PASI to evaluate the target lesion identified at Baseline. Additionally, adverse events (AEs) will be monitored and the treatment area will be examined to assess application site reactions at Visit 2 and Visit 3.

Blood samples will be collected at each study visit for serum chemistry analysis to evaluate serum calcium, serum albumin and albumin-corrected serum calcium levels.

Safety assessments will include: AE assessments, application site reaction assessments; serum calcium and albumin-corrected serum calcium results; urine pregnancy test (for females of childbearing potential) and physical examinations including vital signsSafety will be assessed by the monitoring of all adverse events.

Evaluations:

- Investigator's Global Assessment (IGA).
- PASI
- Application site reactions such as erythema, dryness, burning/stinging, erosion, edema, pain and itching will be recorded at each visit to allow a comparison between treatment groups.

Study Population:

Key Inclusion Criteria

- Male and non-pregnant, non-lactating female subjects, at least 18 years of age, that at Baseline have:
- A clinical diagnosis of stable (at least 6 months) scalp psoriasis involving at least 10% of the scalp and clinical signs of psoriasis vulgaris on trunk and/or limbs.
- Scalp psoriasis consistent with at least moderate disease severity (grade ≥ 3) using the Physician's Global Assessment (PGA) of disease severity.
- Plaque elevation of at least moderate severity (grade ≥ 3) at the scalp target lesion site using the Psoriasis Area Severity Index (PASI).

Criteria for Evaluation:

Efficacy

Co-Primary:

- The proportion of subjects in each treatment group with "treatment success" (defined as none or minimal, a score of 0 or 1, within the treatment area) on the PGA of disease severity at the Week 4 (Day 28 ± 4 days) visit; and
- The proportion of subjects in each treatment group with "clinical success" (defined as clear or almost clear, a score of 0 or 1, at the target lesion site) on the PASI at the Week 4 (Day 28 ± 4 days) visit. Each psoriatic sign of scaling, erythema and plaque elevation should have a score of 0 or 1 at Week 4 (Day 28 ± 4 days) for the subject to be considered a clinical success. The target lesion is to be identified at Baseline as the most severe lesion.

Safety:
The incidence of all AEs reported during the study will be summarized by treatment group.

Safety profiles of TEST and RLD will be evaluated by comparing the nature, severity, and frequency of the AEs, including application site reactions and serum calcium and albumin-corrected calcium results.

Statistical Methods:

Demonstration of Bioequivalence
Bioequivalence will be established if the 90% continuity-corrected confidence interval of the test - reference difference for the primary endpoint (success proportion) is contained within the interval [-0.20, +0.20] in the PP population.

Demonstration of Superiority
The test product and reference product will be compared to the placebo group using a continuity-corrected Chi-square tests for statistical superiority at $p<0.05$ with regard to the primary endpoint using the modified intent-to-treat (mITT) study population and Last Observation Carried Forward (LOCF).

STUDY VISIT SCHEDULE

Procedure	Visit 1 / Baseline	Visit 2	Visit 3	Unscheduled Visit
	Day 1	Day 14 (±3 days)	Day 28 (±4 days)	
Informed Consent	X			
Demographics	X			
Medical/Disease History	X			
Brief Physical Examination, including height and weight	X			
Vital Signs	X			
Urine Pregnancy Test	X[a]		X	
Inclusion/Exclusion Criteria	X			
Clinical Laboratory Tests	X	X	X	X[f]
Prior/Concomitant Medication Review	X	X	X	X
Adverse Event Assessment		X	X	X
Initial Psoriasis Assessment (Diagnosis)	X			
Total Body Surface Area (BSA) Involvement	X[b]			
Scalp Surface Area Involvement	X[c]			
Treatment Area and Target Lesion Designation	X[d]			
Physician's Global Assessment (PGA)	X[e]	X	X	X[f]
Psoriasis Area Severity Index (PASI)	X[e]	X	X	X[f]
Application Site Reaction Assessment		X	X	X[f]
Assign Subject Number	X			
Review Subject Instructions	X	X		X[f]
Dispense IP and Subject Diary	X	X		X[f]
Collect IP and Subject Diary		X	X	X[f]
Document IP Accountability		X	X	X[f]
Review IP Compliance		X	X	X[f]
Schedule/Confirm Next Visit	X	X		X[f]
Discharge Subject From Study			X	

EOT: End of Treatment

a. For women of childbearing potential – to be completed prior to randomization at Visit 1/Day 1.
b. Identify and document the percentage of total body surface area affected by psoriasis the distribution of the subject's psoriasis within the subject's source documentation.
c. Identify and document the percentage of scalp surface area affected by psoriasis and the distribution of the subjects scalp psoriasis within the subject's source documentation.
d. Identify and document the treatment area (scalp location(s) affected by psoriasis that is to be treated) within the subject's source documentation. Select the most severe scalp psoriasis lesion as the target lesion. Document the location and size of the target lesion within the subject's source documentation.
e. The same Qualified Evaluator should conduct the treatment area evaluation (including PGA and PASI) at Visit 1/Day 1 and Visit 3/Day 28. However, in the event that the Baseline Qualified Evaluator is not available at Visit 3/Day 28, another Qualified Evaluator may perform the treatment area evaluation.
f. As needed