

# A Preliminary Study for the Use of Celadrin™ for the Treatment of Psoriasis

After receiving numerous reports of improved psoriatic conditions from our clients, we embarked upon a small pilot study to determine the benefit of Celadrin™ cream for improving psoriasis. In order to provide legitimacy, we enlisted the aide of a third party clinic research organization, Life Management Group (LMG).

LMG contacted a leading dermatologist in the La Jolla/San Diego area for evaluating the Celadrin™ cream. This dermatologist enlisted current patients for testing the Celadrin™ cream. This was a double blind, placebo controlled study using unmarked tubes. The active and placebo creams were masked using a very slight bergamot scent.

Patients were asked to provide informed consent and were instructed to follow their normal daily activities. The dermatologist assigned an initial severity score for each patient using a 6-point scale (0=no psoriasis; 5=significant psoriasis) prior to treatment with the Celadrin™ cream. The table below shows the average severity scores.

| <b>Outcome Measures</b> | <b>Severity Score</b> |
|-------------------------|-----------------------|
| Skin Scales             | 3.1                   |
| Skin Patchiness         | 3.4                   |
| Raised Skin             | 3.0                   |
| Skin Redness            | 3.5                   |
| Skin Dryness            | 3.3                   |
| Skin Cracks             | 1.4                   |

The patients were then asked to apply the cream to their affected area twice per day (e.g. AM and PM). The patients were asked to maintain their current therapeutic regiment to include steroid administration and UV light exposure.

After seven and 14 days, each patient visited the dermatologist who evaluated skin improvement using a 6-point Likert scale (0=no improvement, 5=significant improvement). The table below shows that these patients experienced an approximate two levels of improvement for the given outcome measures. See Appendix I for individual improvement scores.

| <b>Outcome Measures</b> | <b>Improvement Score (Day 7)</b> | <b>Improvement Score (Day 14)</b> |
|-------------------------|----------------------------------|-----------------------------------|
| Less Scales             | 1.9                              | 2.1                               |
| Fewer Patches           | 1.8                              | 1.7                               |
| Less Raised Skin        | 1.6                              | 2.4                               |
| Less Redness            | 1.9                              | 1.8                               |
| Less Dryness            | 1.8                              | 1.9                               |
| Fewer Skin Cracks       | 1.0                              | 0.6                               |

There were three individuals who received the placebo cream. One subject did not experience improvement; one subject experienced one level of improvement in dryness and skin cracks. It is thought that this improvement was probably attributable to the base emulsion of the cream. And, the third patient was removed due to non-compliance.

In summary, in this small, placebo controlled blind study individuals using the Celadrin™ cream experienced measurable improvement in their psoriatic condition. It should be noted that these were individuals currently on a treatment modality for their condition but who had achieved some plateau in their improvement. This information corroborates the report submitted by the primary dermatologist conducting the study.