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Determining efficacy and safety of novel skin formulations targeting the cutaneous TRPV1 receptor: Effects on cutaneous aging and skin sensitivity

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utaneous signs of aging and skin sensitivity, both growing fields in dermatology, are provoking tremendous interest with increasing populations declaring to have skin sensitivity. Specific individuals show heightened sensitivity to vast arrays of noxious stimuli including physical irritants and environmental factors which not only lead to perceived feelings of sensitivity but also cutaneous signs, such as erythema. The human thermoreceptor TRPV1 is known to play a key role in sensitive skin and skin aging, therefore, its inhibition with targeted therapy should help reduce skin reactivity. A five amino acid sea anemone peptide with TRPV1 inhibition properties along with niacinamide and hyaluronic acid were incorporated into novel topical skincare formulations for addressing signs of skin aging and sensitivity. Multiple clinical trials testing the RossiDerm MD [™] line of products were carried out. Healthy M/F(30- 63y), of all races with self-perceived sensitive facial skin, mild/moderate lines/ wrinkles, uneven skin tone, noticeable pores, and skin roughness who provided written informed consent and met the inclusion/exclusion criteria were enrolled. A trained grader evaluated various skin attributes at baseline, immediately after test product application and at Week4. Chromameter™ was used to measure skin redness, hyperpigmentation, brightness/radiance and the Cutometer® to measure skin elasticity. Digital images (VISIA®-CR) of lines/wrinkles, visible spots, red feature, texture and pores were taken and analyzed using Vaestro*analyses. Consumer perception was collected via Self-Perception Questionnaires (SPQ). With use of topical skin care formulations targeting the TRPV1 skin receptor, results from our multiple clinical trials confirmed by clinical grading, instrument measurements, Vaestro* image analysis and subject's self-perception showed improvement in cutaneous signs of aging and skin sensitivity.

In conclusion, TRPV-1 targeted therapy helps reduce cutaneous aging and skin sensitivity in overreacting to environmental stimuli and this can be further exploited in management of highly prevalent skin conditions like atopic dermatitis, acne and others.

Biography

Dr Nalini Kaul completed her PhD. from PGIME&R Chandigarh, India. Post- doctoral training from St Boniface General Hospital Winnipeg Canada and from the University of Southern California, USA. Soon after she took a Senior Scientist position at the University of Dallas, Texas. Following her return to Canada she worked as Technical Director on Clinical trials with a reputed CRO, moved on to hold a joint appointment as Sr. Director of Regulatory Affairs and Director of Clinical trials with another firm of repute. At present she is Vice President of Technical Services at a well reputed CRO serving North American and the UK. She has published 40 papers in national and international journals, has several book chapters to her credit and has widely presented at conferences both nationally and internationally.

Anthony M. Rossi M.D. is a board-certified dermatologist and Micrographic Surgeon at the Memorial Sloan Kettering Cancer Center and an assistant professor at Weill Cornell Medical College. He trained in dermatologic surgery, cosmetic and laser dermatology, and advanced cutaneous oncology at the Memorial Sloan Kettering Cancer Center and Weill Cornell Medicine. His interests include non-invasive imaging of cutaneous tumors; laser and light based treatments of skin cancers; as well as the quality of life impact of cosmetic procedures. He also has a keen interest in the utilization of reflectance confocal microscopy in the skin.

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