Center for Dermal Research
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Neelam Muizzuddin is operating a consulting company where she offers skin clinical research designing, testing, data mining and training as well as preparing manuscripts for publication.

Neelam has worked in the cosmetic industry for over three decades as a Clinical Research Scientist. She has extensive expertise in managing GCP compliant clinical studies pertaining to safety and efficacy of topical materials and is proficient in utilizing skin bioengineering instrumentations for skin measurements.

She has several publications as book chapters, patents and peer reviewed journals. At present she is President of "Skin Clinical Research Consultants LLC" and Adjunct Professor at SUNY Stony Brook.

She is a Member of several skin measurement and dermatology societies and actively participates in the administration of scientific conferences in her field. She is also an instrument rated pilot an artist and a pastry chef.

"Skin Lightening"

Abstract:

Melanin is a dark brown to black pigment occurring in the hair, skin, and iris of the eye of humans and animals. It is synthesised in melanocytes which are highly differentiated cells in the basal layer of the epidermis. In addition to coloration, melanin absorbs harmful UV (ultraviolet) rays and protects cells from sun damage. It is responsible for tanning of skin exposed to sunlight as well as hyperpigmentation after inflammation.
Skin colors in humans range from extremely fair/light to extremely dark depending on racial/ethnic background. Keratinocytes in fair skin tend to cluster their poorly pigmented melanosomes above the nuclei, whereas in dark skin the heavily pigmented melanosomes are distributed individually in keratinocytes, thus maximizing their absorption of light. The regulation of skin pigmentation sometimes goes awry, leading to pigmentary disorders such as melasma, lentigos and freckles. The desire to minimize the appearance of textural and pigmentation problems has prompted technologic advances to lighten skin. Many techniques and topical treatments are available to inhibit and contain melanin production. This lecture will

discuss the various pathways that could lighten skin as well as study designs to determine the efficacy of topical products on lightening skin pigmentation.