INFECTIOUS DISEASES (BACTERIAL, FUNGAL, VIRAL, PARASITIC, INFESTATIONS)

THE ROLE OF CUTANEOUS MICROBIOTA HARMONY IN MAINTAINING A FUNCTIONAL SKIN BARRIER

H Baldwin [1] - N Bhatia [2] - A Friedman [3] - R Martin [4] - S Seite [5]

Suny Downstate Medical Center, Dermatologist, New York, United States [1] - Therapeutics Clinical Research, Dermatologist, San Diego, United States [2] - Montefiore Medical Center, Dermatologist, New York, United States [3] - L'oreal, R&i, Paris, France [4] - L'oreal, L'oreal, Paris, France [5]

Introduction:?Actinic keratosis (AK) is a common pre-cancerous skin lesion caused by solar radiation exposure. Regular use of sunscreen is recommended to prevent the development of AK. The goal of this study is to assess the efficacy of sunscreen with UVB and UVA protection (SPF100, UVAPF49) in preventing AK appearance or recurrence.
Human skin is a complex barrier organ that provides an ecological niche for a wide range of micro-organisms. The majority of these are harmless or beneficial, providing protection against pathogens and playing an important role in modulating the host's cutaneous innate and adaptive immune system. Skin is constantly exposed to factors (e.g. UV, pollution, topical medications) that can alter the relationship between skin and the microbiome, which may result in increased risk for infections, chronic inflammatory skin disease (e.g. Atopic Dermatitis, Psoriasis, Rosacea) and complaints of skin sensitivity and irritation.

Conclusions:?Understanding the complex relationship between normal barrier function and the skin microbiome is critical for the rational development of new skin care products. Appropriately developed formulations may have the potential to selectively increase the activity and grown of beneficial microbiota, prevent skin dysbiosis, and restore or maintain efficient skin barrier function.