

Abstract from Medical Expert Reports

University Dermatology Clinic Tübingen (Prof. Dr. med. Mark Berneburg)

Study: "Efficacy of prototypes of UV filter films on mutations of the mitochondrial DNA".

Result: The different filter films protect, depending on their type and transmission spectrum, very efficiently to highly efficiently against UVA radiation-induced mutations of mitochondrial DNA in skin cells, which are known to play a causal role in skin aging.

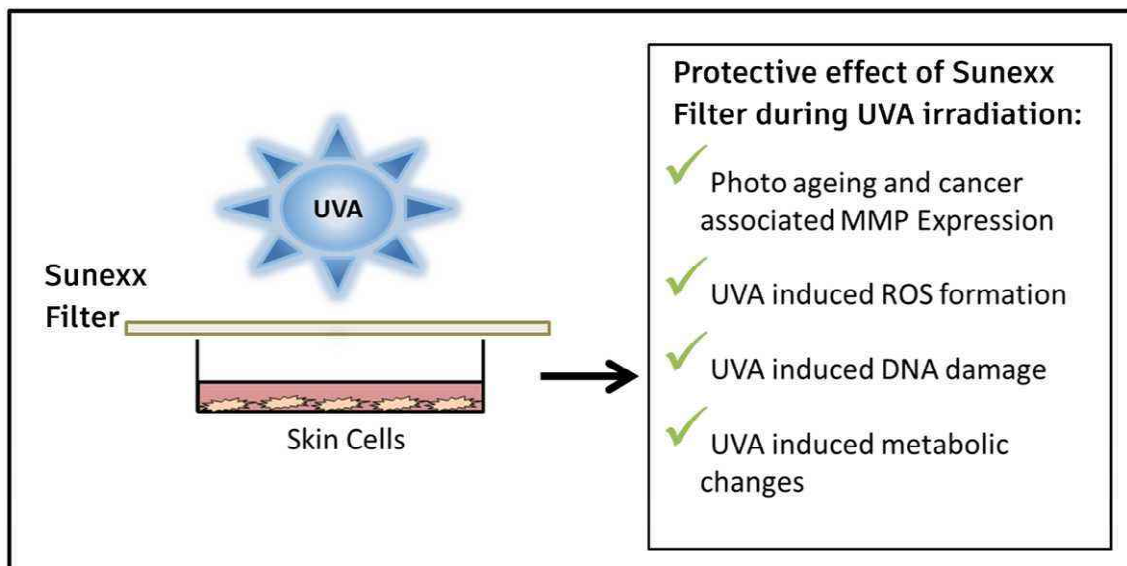
Clinic and Polyclinic for Dermatology of the University Hospital Regensburg and Interdisciplinary Skin Cancer Center Upper Bavaria (Prof. Dr. med. Mark Berneburg)

Study: "Investigation of the protective effect of UV filters on skin cells"

Protective effect of the UV films against UVA induced:

- changes in cell viability and cell size
- expression of matrix metalloproteinases MMP
- radical oxygen species (ROS)
- formation of the 8-oxoguanosine (8OHdG)
- common deletion of mitochondrial DNA (4977 bp deletion of mtDNA)
- damage of DNA including double and single strand breaks
- metabolic changes

Results: The Sunexx filter film can significantly reduce the damaging effects of UVA to skin cells like photoaging and carcinogenesis (MMP expression, ROS formation, DNA damage and metabolic changes).



Further medical studies by:

- Prof. Dr. med. Peter Wolf, University Clinic for Dermatology and Venerology in Graz/Austria
 - proDERM GmbH, Institute for Applied Dermatological Research, Hamburg
 - Prof. Dr. Fritz-Albert Popp, International Institute of Biophysics, Neuss

Recommended by:

Deutsche Haut- und Allergiehilfe e.V. (German Skin and Allergy Help – DHA)

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