

# Elucidation of the molecular basis linking UV-induced cellular aging and dermatoheliosis

**Hiroyuki Sasanuma**

*Department of Basic Medical Sciences, Tokyo Metropolitan Institute of Medical Science*

As we are now facing an era of hyper aging society, maintaining mental and physical youthfulness throughout a lifetime is directly linked to healthy longevity and the quality of life (QOL). Youthful is often assessed by appearance, including signs of aging such as skin blemishes and wrinkles. Therefore, inhibiting these skin aging signs holds immense importance for maintaining QOL. Sunspots and wrinkles are attributed to photoaging, caused by exposure to ultraviolet (UV) irradiation from sunlight. Since the continuous exposure of UV and subsequent photoaging leads to solar keratosis and skin cancer, investigation of molecular mechanism of photoaging and its prevention are necessary for the maintenance of QOL. In this study, we aim to investigate photoaging in terms of genomic alternation by exposure of UV, especially the molecular mechanism underlying cause of photoaging. Our research would help provide fundamental insights for seeking “photoaging scavenger compounds” in future.