

〈シンポジウム〉

(抗老化化粧品の一戦略—シワ対策化粧品の戦略—)

## 老化および光老化の機序とその対策

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### Strategy for Developing Anti-Wrinkle Agents —Mechanisms of aging and photoaging and their prevention—

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#### Abstract

Chronic exposure to solar radiation induces skin aging, called photoaging. To delay the onset of photoaging and to rejuvenate photo-damaged skin, it is essential to better understand the mechanisms of photoaging and chronological aging. Here, the mechanisms of wrinkle formation are discussed based on recent data reported from other institutes and my research groups, focusing on the effects of ultraviolet radiation on DNA damage, reactive oxygen species and activation of mRNAs of matrix metalloproteinases which may play a crucial role in shallow and deep wrinkle formation on sun-damaged skin. Finally, strategy for developing anti-wrinkle agents is discussed.

**Key words:** UV, photoaging, aging, wrinkle, DNA damage, ROS, MMP.