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「見た目の老化」への化粧品領域の取り組み

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Cosmetics R&D Targeting Sagging

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Abstract

Sagging, which is a ptosis of the skin formed under the influence of gravity, progresses with aging, causes morphological changes of the face, and gives a strong impression of aged appearance, so that it is a great matter of concern to people worldwide. However, until recently, cosmetics R&D has been targeting skin surface wrinkles, which appear on the superficial region on the skin, instead of the morphological change of the face, sagging. Therefore, we tried to refocus R&D in the cosmetic field toward sagging, in order to help people suffering from lower quality of life (QOL) due to this issue. But, since sagging was a novel field, we first needed to establish the fundamental basis for sagging research from scratch, including definitions of sagging, evaluation systems for extent of sagging, and so on. Through this program, we have clarified the actual situation of sagging of the face, such as how it progresses with aging, gender differences, and relationships with other signs of aged appearance. Further, we have identified a variety of critical contributors to the aging-related occurrence of sagging, such as deterioration of the dermal layer, impairment of mimetic muscles, loss of characteristic structure in facial skin (anchoring structure), loss of integrity of the lower dermal layer (dermal cavitation), and so on. Further, we characterized various regulation systems of dermal layer condition that influence resistance to sagging, including regulation of the dermal layer by the subcutaneous adipose layer, and the dermal cell network as a crucial controller of dermal cell aging. Based on these findings, we have established a variety of cosmetic approaches to ameliorate sagging. In this review, I would like to introduce cosmetics R&D focused on sagging in facial skin.

Key words: sagging, wrinkle, subcutaneous adipose layer, mimetic muscle, beauty method.