



## Shiseido MIRAI Technology Institute's Researcher, Satoshi Horiba Won the Best Presentation Award at 22nd Annual Meeting of the Japanese Society of Anti-Aging Medicine

Satoshi Horiba, researcher at Shiseido MIRAI Technology Institute, received the Best Presentation Award at the 22nd Annual Meeting of the Japanese Society of Anti-Aging Medicine\*<sup>1</sup> held on June 17-19, 2022, for his presentation entitled “IL-34 Downregulation–Associated M1/M2 Macrophage Imbalance Is Related to Inflammaging in Sun-Exposed Human Skin”. The award is presented to researchers for their particularly outstanding research presentations in a wide range of fields related to aging.

Shiseido has already elucidated the mechanism of age- and UV-induced skin aging from various angles. We will continue to pursue our research on skin aging by leveraging cutting-edge research techniques and findings in the medical and other fields.

\*<sup>1</sup> Initially established in 2001 by a group of physicians and medical and biological researchers. It aims to improve the quality of life (QOL) and extend healthy life expectancy by pursuing and implementing active intervention in anti-aging medicine that prevents the pathological process of aging. <https://www.anti-aging.gr.jp/english/>

### Summary of awarded research presentation

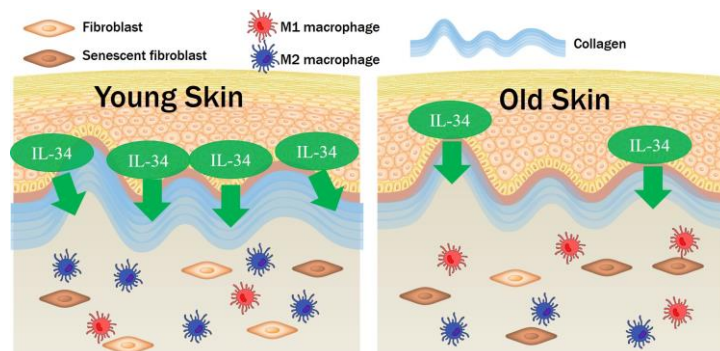
#### ■ IL-34 Downregulation–Associated M1/M2 Macrophage Imbalance Is Related to Inflammaging in Sun-Exposed Human Skin

It is important to elucidate the mechanism of chronic inflammation in order to improve the quality of life (QOL) in an aging society. Particularly, “inflammaging”, in which chronic inflammation accelerates aging, has been shown to cause various diseases, and the elucidation of its mechanism is urgently required. Although it has long been suggested that chronic inflammation occurs in sun-exposed skin, resulting in developing wrinkles and sagging, its detailed mechanism has not been clarified. In this study, we became the first to reveal the possibility that an imbalance of macrophages, a type of immune cell, induces inflammaging in sun-exposed human skin, and that a decrease in IL-34\*<sup>2</sup> produced in the epidermis may be involved in the mechanism of developing inflammaging.

\*<sup>2</sup> A protein secreted by cells and a type of interleukin involved in intercellular interactions. It was identified in 2008, and is known to be highly expressed in skin, especially as an important factor for the maintenance of Langerhans cells.



Researcher, Satoshi Horiba,  
at Shiseido MIRAI  
Technology Institute



A decrease in IL-34 causes macrophage imbalance and accelerates skin aging.

#### Related News Releases

Shiseido Discovers Relationship of Macrophage Balance to Skin Aging for the First Time in the World (2020)

<https://corp.shiseido.com/en/news/detail.html?n=0000000003038>

Shiseido Discovers That Age-Induced Macrophage Imbalance Affects Collagen Metabolism (2022)

<https://corp.shiseido.com/en/news/detail.html?n=0000000003374>