

Press Release

Shiseido Wins First Prize at the 15th China Cosmetics Academic Research Conference for Findings on "Sagging Skin" from Its World-Leading Research

~All Four research papers submitted, including one on the technology originating from the company's research lab in China, were awarded prizes~


Shiseido won one first prize and two second prizes for excellent research papers, selected from among 179 research papers entered for the awards, as well as an excellence award at the 15th China Cosmetics Academic Conference (May 24-26, 2024, Wuxi, Jiangsu Province, China) organized by the China Association of Fragrance Flavour and Cosmetic Industries (CAFFCI). These awards are given to excellent research papers for the content of the research as well as the contribution to the technological advancement of the Chinese cosmetics industry. This year, all four papers submitted by Shiseido were recognized with awards. Notably, one of these papers detailed a technology developed entirely at our local research lab in China from initial planning to actual implementation. This would be the ninth first prize—the award given to the most outstanding study—that Shiseido has received over the years. Shiseido has been leveraging its global R&D network to develop these latest studies and advanced technologies, which will be widely utilized for the development of cosmetic products, including for the Chinese exclusive brand "AUPRES" and global brands such as "ELIXIR" and "SHISEIDO".



Dr. Ezure, Shiseido Fellow, receives first prize at the award ceremony

Outline of award-winning research papers

【First Prize】

Title of paper	Discovery of the skin's anti-gravity system "Dynamic Belt" —Skin analysis revolution; "4D-Digital skin"—	
Presenter	Shiseido Fellow Tomonobu Ezure, Ph.D. MIRAI Technology Institute, Shiseido Co., Ltd.	
Summary of paper	As we age, our skin starts to sag due to gravity, and this makes our appearance look older. However, the system of the skin that works to resist gravity has remained unclear. This time, to clarify this system, our research team (Kyoichi Matsuzaki, Chief of External Plastic Surgery, Faculty of Medicine at the International University of Health and Welfare, together with researchers at Jichi Medical University and the National Institute for Physiological Sciences) has first developed the "4D-Digital Skin" for 4D visualization of movements inside the skin.	

	<p>This novel technology showed that small muscles called arrector pili muscles, which are densely arranged in the skin of the face, could support the skin by resisting gravity. Thus, we designated this anti-gravity system as the dermal "Dynamic Belt." Meanwhile, it was also suggested that, as the arrector pili muscles decline with age, the function of the Dynamic Belt declines, which leads to skin sagging. Moreover, the study revealed that by stretching the skin could activate arrector pili muscles. We will continue to advance the development of new skin care based on the findings obtained in this study.</p>
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【Second Prize】

Title of paper	Innovative skin care for aging skin based on the action of polymer moisturizer inside the skin —Volume control technology to deliver hyaluronic acid and enhance its effects—
Presenter	Researcher, Mika Fujii, Ph.D.,MIRAI Technology Institute, Shiseido Co., Ltd.
Summary of paper	<p>We developed a technology to control the volume of hyaluronic acid and increase its penetration into the skin. Hyaluronic acid is used in various cosmetic products. It exerts a high moisturizing effect on the surface of the skin where it is retained because of its large molecular weight. On the other hand, it was difficult to deliver high-molecular-weight hyaluronic acid, which has the moisturizing effect, to the inside of the skin's stratum corneum. Another challenge was that hyaluronic acid injections for cosmetic medical purposes, which can be injected directly into the subcutaneous tissue, are invasive and cannot be applied to the entire face. The developed technology reduces the volume of hyaluronic acid, making it penetrate more easily into the stratum corneum, and has been shown to improve the softness and transparency of the stratum corneum. Moreover, the water content of the stratum corneum and the texture of the skin were improved by expanding the volume of the shrunken hyaluronic acid once again. This technology is expected to be applied to an innovative formulation that will allow the effects of hyaluronic acid to be expressed inside the skin.</p>



Title of paper	Research on skin care function of cyclic peptides obtained from fermentation of a bacterium belonging to the same subspecies as Bacillus subtilis natto
Presenter	Rui Qu, Formula Development Senior Researcher, Shiseido China Innovation Center
Summary of paper	<p>We focused on a biosurfactant obtained by fermentation of Bacillus subtilis, a strain of the same subspecies to which Bacillus subtilis natto belongs. To make use of its unique high hydrophilicity, we investigated the proper balance of water, oil, and surfactant when used in combination with even more sustainable co-emulsifying ingredients. As a result, we were able to successfully develop a transparent, highly stable, natural ingredient-based nanoemulsion that can be produced in large quantities. Moreover, by incorporating nanoemulsion parts into skin care products, we were able to produce a skincare formulation that showed good absorption with a high active penetration effect.</p>



【Excellence Award】

Title of paper	Container-filling/molding technology that reduces CO ₂ emissions throughout the packaging life cycle
Presenter	Kosuke Otaka, Researcher, Brand Value Development Institute, Shiseido Co., Ltd.
Summary of paper	<p>Addressing environmental issues is considered a very important corporate mission in the cosmetics industry. The containers used for our cosmetic products must provide not only the basic function to ensure the quality of cosmetics but also emotional values, with consideration given to their environmental impact. With conventional technologies, it was difficult to balance a design that achieves a reduction in our environmental footprint with emotional value. Thus, we tried to utilize a new technology that allows for the simultaneous molding and filling of containers. This new technology was found to enable a reduction of approximately 70% in CO₂ emissions in the life cycle of packaging, compared with conventional standard replacement containers of the same capacity. Ultimately, this has led us to achieve the development of containers that satisfy both of the above two elements.</p>



China Association of Fragrance Flavour and Cosmetic Industries, CAFFCI

CAFFCI is a nonprofit organization consisting of business entities, institutions, and individuals specializing in activities for cosmetics manufacturing such as essence/fragrance and cosmetics ingredients, as well as equipment/devices, packaging, related R&D activities, design, education, and others. The China Cosmetics Academic Research Conference is held once every two years and is regarded as one of the largest conferences on cosmetics in terms of the number of research presentations and academic debates involved. The participants include many companies, universities, and research institutes in China and overseas, and the best research papers are selected based on outstanding results that will contribute to advancing technologies in the Chinese cosmetics industry.

Related past press releases

- Shiseido Wins First Prize at the 14th China Cosmetics Academic Research Conference for Innovative Technology That Converts Ultraviolet Light into Light to Bring about Beneficial Effects on the Skin (2023)
<https://corp.shiseido.com/en/news/detail.html?n=0000000003571>
- Shiseido Wins First, Second, and Third Prizes at 13th China Cosmetics Academic Research Conference (2020)
<https://corp.shiseido.com/en/news/detail.html?n=0000000002957>
- Shiseido Wins First Prize and Two Second Prizes for Excellent Research Papers at the 12th China Cosmetics Academic Research Conference (2018)
<https://corp.shiseido.com/en/news/detail.html?n=0000000002478>