

News Release

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Biotic rejuvenation support: BASF's Care Creations® launches skin care ingredients based on bacterium found in youthful skin

- **Probiolift™: first cosmetic ingredient with live probiotic helps make the skin appear fuller and improves the appearance of forehead wrinkles**
- **Postbiolift™: postbiotic helps make the skin appear more elastic, smooths the appearance of crow's feet wrinkles, and creates an appearance of an even complexion**
- **Cosmetic ingredients harness *Lactobacillus crispatus* bacteria that are abundant in young skin and considerably decreased in older skin**

Pulnoy, France – June 27, 2022 – With Probiolift™ and Postbiolift™, BASF's Care Creations® is introducing two new biotic ingredients that support healthful and graceful skin aging. Unlike other biotics existing on the cosmetic market, the newly developed ingredients are the first to use a bacterium that is found naturally in the skin: *Lactobacillus crispatus* (*L. crispatus*), a Gram-positive rod shape anaerobic bacterium that has been found to decrease with age.

“Consumers are increasingly aware of the health benefits that biotic ingredients offer, whether pre-, pro- or postbiotics. This trend has its roots in the food industry,” said Cécile Kalem, BASF Launch Manager for Active Ingredients in Europe. “What is common practice in this field has, up to now, been one of the most challenging tasks for the personal care industry: incorporating living skin bacteria into cosmetic formulations and keeping them active. With Probiolift, we have found a solution for this challenge – a real breakthrough by our research and development teams.”

New insights into changes in the facial microbiome upon aging

Complementing existing research that indicates skin microbiota diversity changes with age, BASF has conducted a new study on the difference in the facial microbiome composition of young and old people. The research team found that lactic acid bacteria, including *Lactobacilli*, noticeably decrease in mature skin. The *L. crispatus* specie in particular decreased in the undereye zone and was not detectable in the wrinkle hollow of the older volunteers. This finding has led BASF researchers to assume that *L. crispatus*, isolated from human skin, may be the key to more youthful looking skin. BASF has developed two cosmetic ingredients from the same biofermentation process: Probiolift, the probiotic with dormant cells of living *L. crispatus*, and Postbiolift, the fermentation supernatant containing the metabolites secreted by *L. crispatus*.

Probiolift™ for fuller skin with reduced appearance of wrinkles

Probiolift is made of living but dormant *L. crispatus* bacteria which awaken in contact with water on the skin. The ingredient thus unlocks a hitherto largely untapped potential in the biotic beauty sector. It promotes graceful skin aging by making the skin appear fuller, and improving the appearance of forehead wrinkles.

Twenty-nine female volunteers between the ages of 45 and 65, who had fine lines or wrinkles on their forehead, participated in the clinical study. The efficacy of a base cream formulation containing Probiolift at 0.05 percent was evaluated in comparison with a placebo base cream formulation. Probiolift made the volunteers' skin appear fuller after two months. Although the appearance of forehead wrinkles is more difficult to smooth than crow's feet, the new probiotic offered a visible correction in this area as well, achieving a 5 percent reduction in the appearance of wrinkles compared to the placebo. Clinical results were supported by *L. crispatus* biological properties shown in advanced *in vitro* testing.

Postbiolift™ for more elastic appearing, smooth and even skin

Postbiolift is a new and unique postbiotic ingredient containing beneficial metabolites secreted by *L. crispatus*. It supports an improvement in the mechanical properties of the skin to help make it appear more elastic, smooth the appearance of wrinkles around the eyes, and create an appearance of an even complexion.

The efficacy of Postbiolift was demonstrated in a placebo-controlled, clinical study with 30 female volunteers aged between 40 and 50 with crow's feet wrinkles and color spots on the face. After 28 days and 56 days of treatment with the ingredient formulated at 1 percent in a cream, the elastic parameters were evaluated. The results were significant compared to the placebo, with an improvement of up to 10 percent.

In addition, at the end of the 56-day study, Postbiolift had significantly decreased the appearance of crow's feet and pigmented age spots in these middle-aged women by almost 7 percent compared to the placebo. The mechanism underlying the observed clinical results has been evidenced by comprehensive *in vitro* studies.

Together, these two new ingredients are empowering cosmetics manufacturers to meet rising demand for clinically proven, biotic products that support youthful skin appearance.

About the Care Chemicals division at BASF

The BASF division Care Chemicals offers a broad range of ingredients for personal care, home care, industrial & institutional cleaning, and technical applications. We are a leading global supplier for the cosmetics industry as well as the detergents and cleaners industry, and support our customers with innovative and sustainable products, solutions and concepts. The division's high-performance product portfolio includes surfactants, emulsifiers, polymers, emollients, chelating agents, cosmetic active ingredients and UV filters. We have production and development sites in all regions and are expanding our presence in emerging markets. Further information is available online at www.care-chemicals.basf.com.

About BASF

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. Around 111,000 employees in the BASF Group contribute to the success of our customers in nearly all sectors and almost every country in the world. Our portfolio comprises six segments: Chemicals, Materials, Industrial Solutions, Surface Technologies, Nutrition & Care and Agricultural Solutions. BASF generated sales of €78.6 billion in 2021. BASF shares are traded on the stock exchange in Frankfurt (BAS) and as American Depositary Receipts (BASFY) in the U.S. Further information at www.basf.com.