

News Release



Relipidium™ helps to rebalance the skin's ecosystem to restore the skin barrier and increase skin hydration

- **New active ingredient stimulates the synthesis of lipids in the epidermis and rebalances skin microbiota**
- **BASF establishes interdisciplinary innovation platform on skin microbiota**

Paris, France – January 10, 2017. At this year's Cosmetagora, BASF is launching the first active ingredient for the personal care market that is able to rebalance the skin's ecosystem: [Relipidium™](#) reinforces the skin's lipid barrier and defense by creating a favorable environment for a balanced skin microflora, which in return helps to preserve an optimal skin moisturization. To further explore the role of microbiota in a healthy skin barrier, researchers from BASF have established an interdisciplinary innovation platform. "We want to better understand the role of each micro-organism in skin beauty and build new skin models to study effects of active ingredients", said David Herauld, Head of Global Research and Development for Bio-Actives at BASF. To this end, BASF reinforced its research facilities in Lyon and engaged into partnerships with experts from public and private research institutes.

Findings on skin microbiota will drive product development

One of the first achievements of the research team, in collaboration with the International Center for Infectiology Research (CIRI), has been creating newly engineered skin models embedded with bacteria, which allow researchers to explore the interactions between active ingredients and skin microflora. "From therapeutic gut applications, to the treatment of atopic skin and acne, the use of prebiotics and

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probiotics raised awareness about micro-organisms' potential," explained Herauld. "Based on an ecosystemic approach, we aim to develop ingredients that are capable to support a healthy skin microflora, taking into account skin disorders' origin and microbiota dysbiosis." Over the coming years, BASF intends to launch several active ingredients for cosmetic products that harness the innovation platform's findings on skin microbiota.

Reverse the vicious cycle of dehydration

The top layer of the epidermis, the *stratum corneum*, is composed of terminally differentiated keratinocytes. These cornified envelopes are embedded in lipid bilayers that form the "bricks and mortar" of the epidermis. This impermeable barrier protects our skin and, at the same time, provides an optimum habitat for the skin's microbiota. Once the skin's microflora is impaired, the microbial balance of the skin is disturbed (dysbiosis). Beneficial commensal bacteria are weakened, whereas pro-inflammatory bacteria can take advantage and flourish – endangering the barrier function. Damage of the skin barrier creates the conditions for water evaporation from the skin, as well as penetration of irritants and harmful substances from the outside: circumstances which promote dehydration of the skin. Dry skin in turn reinforces microbiota dysbiosis. The skin gets into a vicious cycle of dehydration.

Relipidium: helps to increase skin hydration

To reverse dehydration and correct skin dryness, BASF has developed Relipidium. Based on in vivo results on microbiota, it is the first active ingredient that rebalances the skin's ecosystem to restore the skin barrier and correct skin dryness: it stimulates the synthesis of lipids in the epidermis, thus speeding up barrier recovery and strengthening the skin's defense. Relipidium rebalances the skin without negatively affecting skin microflora. It is obtained through bacterial fermentation – yeast hydrolysate, biofermented by *Lactobacillus plantarum* – and contains no antibiotic or prebiotic activities. Relipidium has been demonstrated *in vivo* to significantly increase skin hydration by twelve percent and to allow an increase of

the beneficial germ *staphylococcus epidermidis* by factor two, both within two weeks. Dry skin dysbiosis was rebalanced, the ratio of *staphylococcus epidermidis* versus the pathogenic germ *staphylococcus aureus* was increased by factor 2.3. Relipidium is incorporated into the final process below 30°C, or at room temperature for cold processing. The recommended dose is one to two percent.

About the Care Chemicals division at BASF

The BASF division Care Chemicals offers a broad range of ingredients for personal care, hygiene, home care, industrial & institutional cleaning, and technical applications. We are the global leading 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. Superabsorbent polymers developed for the full spectrum of hygiene applications complete the range. We have production and development sites in all regions and are expanding our presence in emerging markets. Further information is available on the Internet 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. The approximately 112,000 employees in the BASF Group work on contributing to the success of our customers in nearly all sectors and almost every country in the world. Our portfolio is organized into five segments: Chemicals, Performance Products, Functional Materials & Solutions, Agricultural Solutions and Oil & Gas. BASF generated sales of more than €70 billion in 2015. BASF shares are traded on the stock exchanges in Frankfurt (BAS), London (BFA) and Zurich (BAS). Further information at www.basf.com.