



As new research reveals the importance of nurturing the living organisms both in—and on—the body, skin health may hinge on an optimized microbiome. By Marcia DeSanctis.

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met Nina during a work trip to Moscow in the latter days of the Soviet Union, long before luxury cosmetics boutiques began to revive the barren spaces under the city's faded colonnades. Her skin was untouched by pricey Parisian creams, yet it dazzled—a glow she attributed to a homespun beauty secret: kefir, or fermented milk, which she slathered on her face. The creamy substance was loaded with lactobacillus and other live microorganisms that calmed irritation, Nina explained, much to my intrigue (and slight horror). Almost 30 years later, the beauty industry has latched onto the same idea of nurturing the microbiome—the bacteria, viruses, and fungi present on our skin, and the latest buzzword in complexion care.

Thanks to the Human Microbiome Project, a national endeavor that launched in 2007 involving thousands of scientists and hundreds of millions of dollars, we now know that humans share 99.9 percent of our genes but just 10 percent of the skin's microbial makeup—which means that more than any other factor the bugs on us might determine our individual complexion identity. "It's like in the fifteenth century, when we thought the Earth was the center of the universe," Edouard Mauvais-Jarvis, scientific and environmental director of Dior Beauty, says of the impact such watershed discoveries are having on perceived truths in skin care. Mauvais-Jarvis is the mastermind behind this month's Dior Life, a collection of pastel-hued masks, creams, and cleansers with surface microbe—supporting ingredients; it's also the house's first additive-free skin-care line.

Some studies suggest we inherit most of our microflora from our mothers during childbirth, and from the get-go it performs a central biological function: to aid good bacteria in warding off the pathogenic bad ones. Working with the immune system, microbes have the added task of helping to regulate proper functioning of the skin barrier. "If it's impaired," says Manhattan dermatologist Whitney Bowe, M.D., "we are less likely to trap moisture, and more likely

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to let in allergens and irritants, leading to chronic inflammation," she adds, citing the potential for eczema, rosacea, acne, and psoriasis flare-ups as a result.

An obsession with squeaky cleanness may be to blame for this new peril. Rampant use of resurfacing acid pads, abrasive scrubs, antibiotics, and antimicrobial soaps (the FDA banned nineteen antibacterial chemicals from use in hand and body washes last year) could be altering this surface bacteria, and our immune response. With an uptick in environmental toxins and ultraviolet rays—not to mention high stress levels and overprocessed diets—it is possible that we are harming our microbiome in ways that are unprecedented in the course of evolution.

This gut/skin/brain symbiosis inspired Roshini Raj, M.D., a New York—based gastroenterologist, to develop a topical skin-care range designed to function similarly to an oral probiotic. Called Tula, the eleven-piece collection helped introduce this increasingly popular approach when it launched in 2014. "The same little cultures that do wonders in your stomach can do

the same for your face," she explains of the fragments of lactobacillus and bifida ferment lysate in her Multi-Spectrum Overnight Skin Rescue Treatment, which works to strengthen the skin barrier and boost weakened immunity.

"Just in the last week, I've spoken with four cosmetics companies," University of California San Diego professor Rob Knight reveals of the interest in microbiome studies, such as the one his team has embarked on to isolate pristine examples in huntergatherer populations in Tanzania and in South America's rain forest. By exploring which of these microbes are good or bad for skin health, Knight

hopes to determine what, if anything, we should duplicate to stave off irritation, and even the physical signs of aging. As the data continue to pour in, I've added kefir to my grocery list. \square





OUTSIDE INTERESTS

THE LATEST WAVE OF PRODUCTS FEEDS THE SKIN'S MICROFLORA TO SUPPORT PROPER BARRIER FUNCTION. FROM FAR LEFT: TULA MULTI-SPECTRUM OVERNIGHT SKIN RESCUE TREATMENT; DIOR LIFE OIL-TO-MILK MAKEUP REMOVING CLEANSER; KRISTINA HOLEY + MARIE VERONIQUE BARRIER RESTORE SERUM.

