

Tan stimulant may bronze even the fairest skins

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John Pickrell

Could it be goodbye to the porcelain-skinned English Rose? A paint-on treatment has been developed that may one day allow a real tan without sun, for even very fair skins. The key chemical, a plant extract called forskolin, protected mice against UV rays and allowed them to develop a natural tan by stimulating pigment-producing cells called melanocytes.

The ability to tan is largely controlled by a hormone called melanocyte-stimulating hormone, which binds to the melanocortin 1 receptor (MC1R) on the outside of melanocytes. Many people with red hair and fair skin have a defect in this receptor, meaning they find it almost impossible to tan and are prone to skin cancer.

John D'Orazio of the University of Kentucky College of Medicine in Lexington, US, used depilated mice with defective MC1Rs to show

that applying forskolin to the skin can restore their ability to produce the skin pigment melanin. When it was applied for four weeks before mice were exposed to UV light, they were subsequently able to tan.

In a second experiment, a particularly cancer-prone strain of mice, also bred to lack effective MC1Rs, were exposed to the equivalent of 1 to 2 hours of midday Florida sunlight each day for 20 weeks. Nine control mice developed 11 tumours and showed other evidence of skin damage, while nine mice treated with forskolin developed just six tumours. Their skin also showed less evidence of damage (*Nature*, vol 443, p 340).

"We see no logical reason why it shouldn't work in humans too," says D'Orazio, although no clinical trials have yet taken place. Because forskolin stimulates melanin production, it could give fair-skinned people a natural tan that would also afford some protection from the sun. Unlike UV-blocking creams, the forskolin tan would have the added benefit of not washing off.

Since forskolin has also been shown to cause a degree of tanning in mice with normal MC1Rs, it might allow sunless tanning for all skin types, says D'Orazio.

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NewScientist
YOU ARE MADE OF SPACETIME
Our ultimate origin revealed

Frozen Eden
Did we make it?

The advertisement features a light blue background with autumn leaves in shades of orange and red. A red circular button with the word 'GO' in white is positioned in the lower-left quadrant. On the right side, there is a stack of NewScientist magazine covers. The top cover is white with a black and white portrait of a person and the headline 'YOU ARE MADE OF SPACETIME'. Below it, a purple cover is visible with the headline 'Frozen Eden'.

Those with fair skin are particularly fond of it because it delivers a deep bronze tan that still looks natural. It's a good product for when you also want to exercise after getting your initial tan. There isn't any SPF added in the formula though. And even those whose skin is sensitive can enjoy a great tan because this lotion contains no harsh chemicals. It doesn't have parabens, PABA, or gluten. It's also cruelty-free since it wasn't tested on animals. Could it be goodbye to the porcelain-skinned English Rose? A paint-on treatment has been developed that may one day allow a real tan without sun, for even very fair skins. The key chemical, a plant extract called forskolin, protected mice against UV rays and allowed them to develop a natural tan by stimulating pigment-producing cells called melanocytes. The ability to tan is largely controlled by a hormone called melanocyte-stimulating hormone, which binds to the melanocortin 1 receptor (MC1R) on the outside of melanocytes. Many people with red hair and fair skin have a defect in this receptor, meaning they can't produce melanin. Continue reading. Subscribe for unlimited digital access. on pale skin tones. Fortunately, there are plenty of lighter-hued bronzing products to give even the fairest skin of them all a healthy, natural-looking faux glow. Check out some of our favorite formulas below. STYLECASTER's mantra is "Style To The People" and our mission is to be an accessible, inclusive, ahead-of-the-trend destination for millennial and Gen Z women who want to live with style and substance. Our fashion, beauty and lifestyle coverage is equal parts informative and inspiring, and at once aspirational yet attainable. If you purchase an independently reviewed product or service through a link on our website, we may receive an affiliate commission. 1. Physician's Formula Butter Bronzer. Courtesy of Physician's Formula.