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Subject: Eine interessante Entdeckung

Posted by [Yes No](#) on Thu, 17 Feb 2011 09:00:40 GMT

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Oder auch eine Bestätigung dessen, was Unsereins möglicherweise schon immer Vermutet hat.

[in einem anderen Forum gefunden]

Zitat:

Researchers Accidentally Reverse Baldness, Alopecia in Mice  
Treatment Restored Hair in Mice, but is Far From Ready for Human Hair Loss  
By KATIE MOISSE, ABC News Medical Unit  
Feb. 16, 2011--

Good news for bald mice: A five-day treatment can restore a silky black coat of fur. But it will be a while before the hair-raising drug -- accidentally discovered by University of California, Los Angeles scientists studying gut function -- is ready to be tested in humans.

Although baldness and graying have long been linked to stress, digestive disease researcher Dr. Mulugeta Million had no idea that inhibiting key receptors in a stress response pathway would have such a dramatic effect on hair.

"This was totally unexpected," said Million, a veterinarian and co-director of the UCLA/CURE Digestive Diseases Research Center. "We do not work on hair; we did not set out to study hair growth."

Million and colleagues were studying gut function in mice that happened to have alopecia -- hair loss -- because of an increase in corticotropin-releasing factor (CRF), a compound that seems to play a role in how the body responds to stress. When they injected an antagonist -- a compound that blocks CRF -- once daily for five days, the mice re-grew hair. It was an effect that held up for four months.

"We weren't prepared to see anything like that," Million said.

The antagonist beat out the commercial treatment for alopecia, Rogaine, which caused "moderate" hair re-growth, Million and colleagues reported in the Feb. 17 edition of the online journal PLoS One.

The authors suggest that temporarily blocking CRF receptors could be "a breakthrough therapy for alopecia," and might also hold potential for male pattern baldness and hair loss due to chemotherapy.

"What we can reasonably say is that the antagonist initiates the hair cycle," Million said. "In bald individuals, and in these mice, the hair follicles are in a resting stage. The antagonist awakes them. It turns on the cycle, and the growing phase starts."

The treatment not only reversed hair loss, it also prevented it if started ahead of time. It also restored pigmentation in the skin -- an effect Million said might prevent graying too.

Fountain of Youth for Balding, Graying Humans? Not Yet

Million now plans to tease out how the drug works, and hopes to find a way to send it specifically to hair follicles to reduce the potential for side effects.

"Stress is a very general response, and whether this antagonist could act in other parts of body where stress is also observed is unclear," he said. "The hope is -- and it is possible -- to design a

molecule that will act specifically in the skin and won't interfere with other systems." Once that can be demonstrated, Million said he will take the accidental treatment into clinical trials.

"We're at the early stage, and obviously we need to do more work to understand how this works, where it acts and, of course, if it has side effects," he said. "But we're excited because the effects are very dramatic, very quick, and last for so long."

In diesem Zusammenhang auch interessant:

Zitat:

J Dermatol Sci. 2010 Nov;60(2):67-73. Epub 2010 Sep 29.

Hair follicle is a target of stress hormone and autoimmune reactions.

Ito T.

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Interest in the hair follicle (HF) has recently increased, yet the detailed mechanisms of HF function and immune privilege (IP) have not yet been elucidated. This review discusses the critical points of immunobiology and hormonal aspects of HFs. The HF is a unique mini-organ because it has its own immune system and hormonal milieu. In addition, the HF immune and hormonal systems may greatly affect skin immunobiology. Therefore, knowledge of HF immunobiology and hormonal aspects will lead to a better understanding of skin biology. The HF has a unique hair cycle (anagen, catagen and telogen) and contains stem cells in the bulge area. The HF is closely related to sebaceous glands and the nervous system. This article reviews the interaction between the endocrine/immune system and HFs, including the pathogenesis of alopecia areata associated with stress.

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