Subject: Edelweiß?
Posted by Yes No on Tue, 27 May 2014 12:07:01 GMT
View Forum Message <> Reply to Message

Kleines Abstrakt zu Edelweiß; Mäuse but hey...

Zitat:
Leontopodium alpinum (Edelweiss) extract activates wnt/ß-catenin signaling, induces anagen, and increases hair follicle formation in skin reconstitution assays

SN Kim1, AR Kim1, PJ Park2, Y Zheng3, G Cotsarelis3 and WS Park1 1Advanced Hair Research Laboratory, AMOREPACIFIC Corp. R&D Center, Gyeonggi-do, Republic of Korea; 2Bioscience Research Institute, AMOREPACIFIC Corp. R&D Center, Gyeonggi-do, Republic of Korea and 3Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania, USA

Wnt/ß-catenin signaling has an important role in many developmental processes, including hair follicle morphogenesis and stem cell differentiation. Recently, wnt/ß-catenin signaling has also been revealed as a crucial factor of hair follicle regeneration in adult skin.
In search of novel hair growth-stimulating agents, hundreds of plant extracts were screened for wnt/ß-catenin signaling activation using a TOP Flash reporter assay. The generated candidates were also examined on the expression and translocation of ß-catenin and phosphorylation of GSK3ß using immunocytochemical and immunoblot analyses. We finally observed the anagen induction at the dorsal skins of 7-week-old C57BL/6 mice with topical application, and hair follicle formation in skin reconstitution assays with silicone chamber. We found that the extract of Leontopodium alpinum (Edelweiss) with cold-water extraction method significantly stimulated the transcriptional activity of TOP Flash. Edelweiss also induced the expression and nuclear translocation of ß-catenin in cultured human dermal papilla cells, and enhanced the phosphorylation of GSK3ß. We further observed earlier conversion of telogen-to-anagen phase on the dorsal skins of C57BL/6 mice applied with Edelweiss extract compared with nontreated controls (n=9). Furthermore, in preliminary studies (n=4) using reconstitution assays, we demonstrated that the Edelweiss extract added to isolated neonatal mouse dermal and epidermal cell mixtures, which were then injected into the back skin of nude mouse in a silicone chamber, resulting in skin with significantly greater numbers of hair follicles compared with control nontreated mixtures.

Our results suggest that the Edelweiss extract activates the wnt/ß-catenin signaling pathway and induces hair growth and new hair follicle generation in reconstitution assays. These preliminary findings suggest that additional experiments are warranted to test the effects of the Edelweiss extract on hair growth.