

Redensyl® - the Hair Growth Galvaniser. Translating Innovations from Regenerative Medicine to Hair Care

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Abstract

Redensyl® is the newest breakthrough against hair loss and the best alternative to hair transplantation. It is the first hair care cosmetic active ingredient based on regenerative medicine research. Redensyl® gives better results than a surgical procedure for hair transplant in 84 days⁽¹⁾.

Hair Loss in Numbers

The human scalp has an average 110,000 hairs on a 600cm² surface⁽²⁾, which grow and fall on a daily basis. When the balance between the growing hairs and the falling ones is altered, then hair loss starts and baldness occurs. Hair loss (also called alopecia) can happen at any age, all around the world, mainly targeting men. It is a known fact that 40% of the men will have noticeable hair loss by the age of 35 and this number reaches 65% by 60 years of age. Women are also deeply impacted by this process: 50 to 75% of them suffer noticeable hair loss by the age of 65. Hair loss can be devastating for one's self image and emotional well being.

According to the International Society of Hair Restoration Surgery, almost 1 million patients worldwide were treated by surgical and non-surgical hair restoration methods in 2012. 93 percent of the hair restoration surgery procedures achieved in 2012 were targeting the scalp and 4.5% the eyebrows. Men represent 86% of the patients for hair transplant surgery and 67% for non-surgical hair restoration. They initiate such treatment at the average age of 38.

Each hair surgery enables the transition of 2,016 grafts, representing about 8,100 hairs transplanted on a patient's scalp⁽³⁾. Patients spend an average of \$6,200 for one hair surgery procedure and generally a minimum of three procedures is required to restore the appropriate hair density. Data shows that 64% of the patients' post-surgery complaints are about the final density of their hair⁽¹⁾.

Targeting Hair Follicle Stem Cells

Since stem cells are now a major focus area and trend in the scientific community, with incredible application promises for regenerative medicine, the research on hair follicle stem cells is more recent. However, 40% of the scientific articles related to this topic in PubMed have been published over the last three years, showing the high level of R&D laboratories working in this direction. Activation of hair follicle stem cells and management of their differentiation to induce the production of new hair has become the Holy Grail to answer the needs of hair loss sufferers world-wide who are seeking professional treatments.

Our biotechnology centre analysed the role of the bulge stem cells (outer root sheath cells - ORSc) in the hair growth cycle and learned that ORSc have a crucial function in the initiation of the anagen phase, which is the growth phase of the hair. They

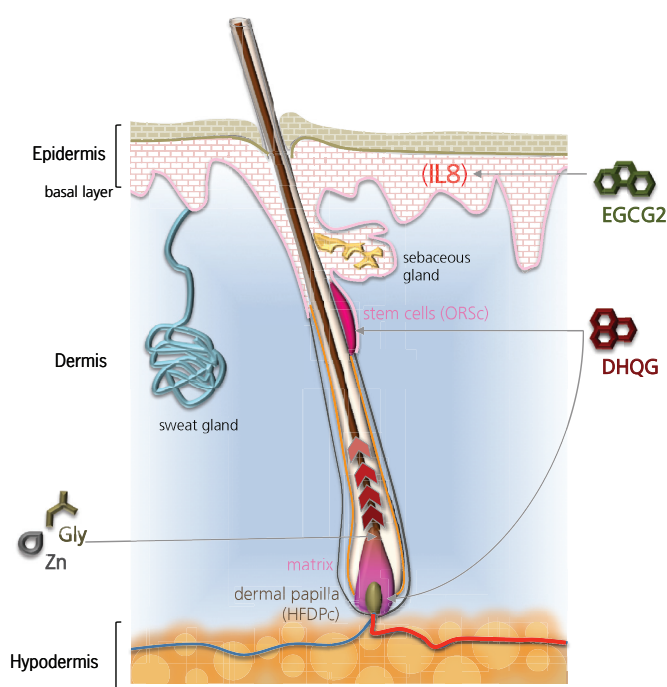


Figure 1. Synergy of the Molecules Contained in Redensyl® to Activate Hair Growth