SurviCode™, a Reinforced Defence Code for Epidermal Stem Cells

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Abstract

Our company strengthens its anti-ageing offer by highlighting SurviCode™'s abilities to protect epidermal stem cells, the key elements of skin renewal. *In vitro* models were developed in order to study the culture of epidermal stem cells-enriched populations (ESCP) and their responsiveness to three types of stress: UV, oxidative stress and anoikis (loss of cell adhesion to the basal membrane of the epidermis). By characterising the phenotype and the functions of human ESCP when stressed, SurviCode™ is shown to restore epidermal stem cells viability. A reinforced defence code for rejuvenated skin.

Introduction

Epidermal Stem Cells: Key Factor of Skin Renewal

Our company revolutionises its anti-ageing active ingredient range by valorising SurviCode™. The global concept surrounding cells' survival code is reinforced with a new protective action on the key elements responsible for skin renewal: the epidermal stem cells (ESC).

Located in the basal layer of the epidermis, each epidermal stem cell gives rise to two daughter cells. One remains in place where it divides once again and assures the renewal of the ESC pool. The other migrates to the upper layer of the epidermis and differentiates to produce keratinocytes. It thus contributes to the maintenance of the tissue to which they belong (Figure 1).

Their ability to divide is strongly related to their ability to bind to the basal layer of the epidermis where molecular and diffusible factors influence them by modelling their phenotype.

Epidermal Stem Cells and Survivin: SurviCode™ Cell Longevity Code

Our company has chosen to focus on Survivin to promote the SurviCode™'s potential to protect ESC longevity. The Survivin is a 'Time' protein related to the survival of cells. The nuclear form is specific to stem cells. SurviCode™ is the first active substance able to restore by 152% the Survivin expression in ESC compared to untreated aged skin. It restores to a younger phenotype compared to a young, 37 year old skin, guaranteeing an unique skin regenerating potential (Figure 2, on page 2).

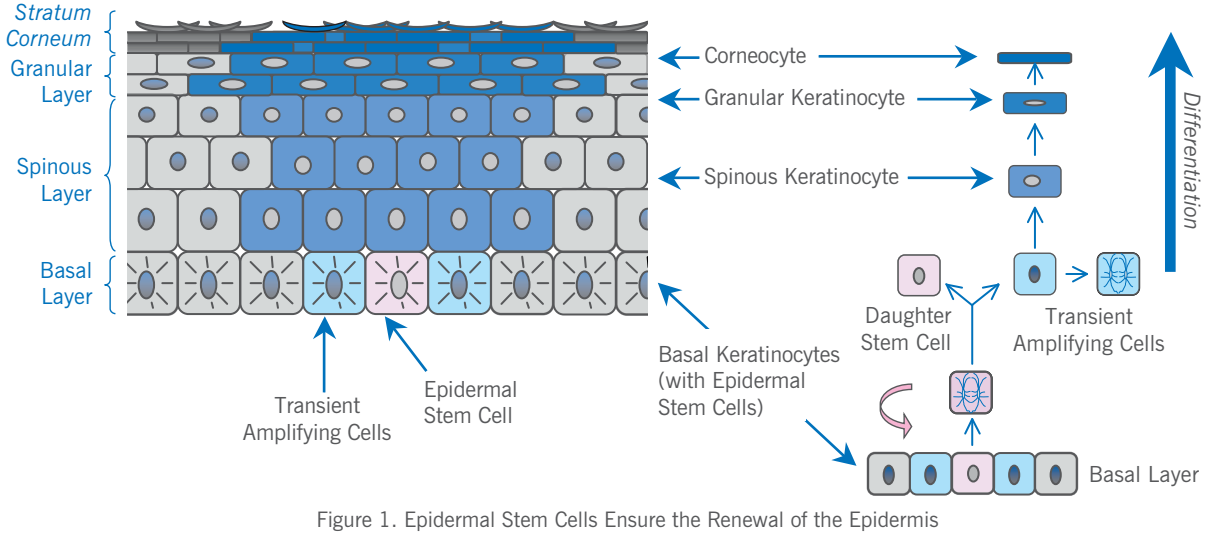

Figure 1. Epidermal Stem Cells Ensure the Renewal of the Epidermis