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COSMETIC INNOVATION DAYS

UN ÉVÉNEMENT COSMETIC VALLEY FRANCE

"GREEN CHEMISTRY" & SUSTAINABLE COSMETIC BIOTECHNOLOGY & COSMETIC APPLICATIONS

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Rosa de-differentiated cell shows skin regenerative properties, in vitro

Plant cell culture technology is a source of innovation for cosmetics. It can provide access to phytochemicals using less water and land, pesticide-free, and with no seasonal dependence inversely to conventional production of plants in fields. Other advantages include the ability to obtain bio-ingredients from slow-growing or non cultivated plants, avoidance of vegetal toxins or allergens, and capacity to produce highly defined profiles of bioactive molecules. In addition, plant cell culture is an innovative means to obtain ingredients that were not previously accessible. The cosmetic industry recently showed interest towards the use of plant cell cultures for various applications such as anti-aging, depigmentation, photoprotection,…. Nowadays, many suppliers offer catalogues of plant cell culture derived products available as lyophilized powders, extracts or purified molecules. We present here the research and development path of a de-differentiated Rosa x Lancôme cell and its impact upon the regenerative properties of the skin. When tested on a reconstructed skin model, this extract increased the expression of some growth factors involved in epidermal homeostasis and repair. In a dermis-derived stem cell model deprived in progenitor cells, only the lyophilized whole Rosa cells at 0,0043 mg/ml helped in recovering the initial epidermal thickness. These results suggest that this Rosa cell lyophilized powder represent a new approach to delay the signs of skin aging. This new raw material is one of the key ingredient of Lancôme "Absolue l'extrait" launched in 2012.