

Press release

STRATEGIC PARTNERSHIP BETWEEN DEINOVE AND SOLVAY FOR THE MARKETING OF PHYTOENE IN NORTH AMERICA AND ASIA

- Solvay Novecare will market Phytoene as a cosmetic active ingredient in North America and Asia under the name ReGeN-oPhyt®
- This agreement completes the Phytoene distribution strategy for the main geographies
- The collaboration could be extended to other developments at a later stage

Montpellier, 2 October 2018 (7:30 am CEST) – DEINOVE (Euronext Growth Paris: ALDEI), a biotech company that discovers, develops, and produces high-value compounds from rare bacteria, notably from the *Deinococcus* genus, announces the signature of a strategic partnership with the chemical group SOLVAY for the marketing of Phytoene, its first innovative carotenoid for cosmetic products, in North America and Asia.

Phytoene is a colorless carotenoid produced by DEINOVE's proprietary technology via a process of fermentation of natural sugars by the extremophile bacterium *Deinococcus geothermalis*. Phytoene helps fight skin aging by reducing oxidative stress and accelerating skin regeneration. Its efficacy and safety have been successfully demonstrated by *in vitro*, *ex vivo*, and clinical trials.

Solvay Novecare Home and Personal Care, the business unit dedicated to skin-care products, will integrate Phytoene into its portfolio of cosmetic ingredients and develop dedicated marketing for the dynamic markets of North America and Asia. It will be distributed under the name ReGeN-oPhyt[®].

Sonia Renac, Solvay Novecare Global Home and Personal Care Vice President, says: "This agreement is a perfect example of the open innovation model that underpins Solvay Novecare HPC's development strategy, which aims to bring innovative solutions to our customers in the very promising sector of cosmetic active ingredients. It marks the beginning of a collaboration that we hope will be long and fruitful."

"With Solvay, our Phytoene is entering the growing markets of North America and Asia. Solvay's local presence and expertise will be key assets. This new agreement reinforces our marketing strategy for Phytoene and could trigger several opportunities in the future," added Emmanuel PETIOT, CEO of DEINOVE.

ABOUT PHYTOENE

A breakthrough in naturally-sourced active ingredients: DEINOVE bioproduced the 1st pure Phytoene.

Nature is a prodigious laboratory, capable of designing highly efficient molecules. Both skin cells and plants rely on a common substance to protect themselves from oxidative stress: Phytoene, the original precursor of all carotenoids. However, unlike plants, skin cannot synthesize it. Phytoene counts among these essential molecules that need to be brought through food or external supplementation, either oral of topical.



So far there was no way to extract pure Phytoene. None of the available production processes from plants allows the production of pure Phytoene. They provide only a mix of carotenoids, at low concentration, and with varying degrees of stability and colors.

Tapping into the extraordinary resources of biomimetism and symbiosis, harnessing the potential of *Deinococcus geothermalis*, a UV-resistant extremophile bacterium, DEINOVE has for the first time ever achieved the bioproduction of pure Phytoene.

Extended anti-aging properties

Carotenoids are known for their anti-oxidant properties. Phytoene has been successfully tested for its ability to reduce the amount of lipoperoxidation products, appearing after cells exposure to UV radiations. Indeed, phytoene accumulates in cellular membranes to prevent cellular degradation. By protecting membranes lipids from free radicals and peroxidation, Phytoene reduces the harmful effects of oxidation and, ultimately, skin aging.

DEINOVE went even further while putting in place a systematic screening of its active ingredients across several dimensions. This comprehensive, innovative approach has highlighted a previously untapped feature under the carotenoid family: cell renewal stimulation. Wounded skin is able to regenerate under the action of phytoene.

These properties were subsequently confirmed by a conclusive clinical study, demonstrating its beneficial effect on skin firmness, elasticity and radiance. Above all, Phytoene has a significant antiwrinkles action.

This makes Phytoene a thorough anti-aging active ingredient for the beauty industry.

ABOUT SOLVAY NOVECARE

SOLVAY NOVECARE is a worldwide leader in specialty ingredients for Personal Care applications and a major player in guar derivatives, polymers and surfactant technologies. Solvay Novecare engineers and develops formulations that provide consumer products and state-of-the-art industrial applications with specific functional qualities designed to modify fluid behavior and deliver cleansing, dispersal, gelling, moisturizing, penetrating, softening or texturizing properties. These formulations are used in shampoos, hair treatments, skin care products, emulsions and detergent. Solvay Novecare, which boasts a worldwide network of 34 manufacturing sites and 22 R&D centers, has become the preferred partner of its customers in rapidly growing economies and leverages an innovation platform based on sustainable solutions.



ABOUT SOLVAY

SOLVAY is an advanced materials and chemical company, committed to developing chemistry that addresses key societal challenges. Solvay innovates and partners with customers in diverse global end markets. Its products are used in planes, cars, batteries, smart and medical devices, as well as in mineral and oil and gas extraction, enhancing efficiency and sustainability. Its light-weighting materials promote cleaner mobility, its formulations optimize the use of resources and its performance chemicals improve air and water quality. Solvay is headquartered in Brussels with around 24,500 employees in 61 countries. Net sales were € 10.1 billion in 2017, with 90% from activities where Solvay ranks among the world's top 3 leaders, resulting in an EBITDA margin of 22%. Solvay SA (SOLB.BE) is listed on Euronext Brussels and Paris (Bloomberg: SOLB.BB - Reuters: SOLB.BR) and in the United States its shares (SOLVY) are traded through a level-1 ADR program.

ABOUT DEINOVE

DEINOVE (Euronext Growth Paris: ALDEI) is a biotech company that discovers, develops and produces high added-value compounds from rare microorganisms for use in the fields of health, nutrition and cosmetic markets. To do so, DEINOVE draws on two key assets:

- a unique library of 6,000 rare or unexploited bacterial strains;
- a metabolic and fermentation engineering platform capable of leveraging these natural "microfactories" to turn them into new industrial standards.

Based in Montpellier, DEINOVE employs approximately 60 employees and has nearly 160 international patents. The Company has been listed on Euronext Growth since April 2010.

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