

## **Evonik Care Specialties at GD-Congress in Berlin: The Effects of Sphingolipids Derivatives in Cosmetics**

March 16, 2010

The effect of innovative sphingolipids derivatives in cosmetic applications is subject of a presentation held by Dr. Mike Farwick, Head of R&D Active Ingredients of the Business Line Care Specialties of Evonik, on Thursday, March 23, 2010, 4.25 p.m. at the GD-Congress (Jahrestagung der Gesellschaft für Dermopharmazie e.V.) in Berlin, Seminaris Campus-Hotel.

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Clearly, significant epidermal changes occur in aging skin that are responsible for its reduced protective, repair and regeneration capacity. The purpose of the presented work was to evaluate novel sphingolipids derivatives for their effects as epidermal cell signalling molecules that aid epidermal repair and regeneration.

Dry, thin and sagging skin is among the most common complaints of women over the age of 50. This is due to reduced protective, preventative and regenerative aspects of aged skin. Aged skin is manifested by reduced stratum corneum (SC) moisturization, and although transepidermal water loss (TEWL) is known to be normal or to be improved with age, the epidermal barrier repair capacity after removing the superficial layers of the barrier by tape stripping is significantly impaired.

Epidermal changes that occur with aging include the premature expression of involucrin and the decline in transglutaminase-1 and filaggrin levels. These changes can impact SC formation and maturation. An age-related decline in the activity of the rate-limiting enzymes for ceramide, cholesterol and fatty acid synthesis has been reported; namely serine palmitoyltransferase, hydroxymethyl-glutarycoenzyme-A reductase, and acetylcoenzyme-A carboxylase. All of these proteins participate in the production of a fully functional SC.

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Evonik Care Specialties provides a unique and comprehensive portfolio of special sphingolipids and other active ingredients for protection, repair and regeneration of aged skin.

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**Company information**

Evonik Industries is the creative industrial group from Germany which operates in three business areas: Chemicals, Energy and Real Estate. Evonik is a global leader in specialty chemicals, an expert in power generation from hard coal and renewable energies, and one of the largest private residential real estate companies in Germany. Our strengths are creativity, specialization, continuous self-renewal, and reliability.

Evonik is active in over 100 countries around the world. In its fiscal year 2008 about 41,000 employees generated sales of about €15.9 billion and an operating profit EBITDA of about €2.2 billion.

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