

Press Release

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Commercialization of reliable tools for toxicological and efficacy studies

Henkel grants unlimited access to innovative Phenion[®] skin models

Düsseldorf – Henkel takes an important step in disseminating in vitro testing tools that were initially developed for own research purposes: From now on, the company grants unlimited access to its innovative skin models, commercialized under the brand Phenion[®]. The bioartificial human skin models can be used for safety assessment or basic research in dermatology and cosmetic science.

Advanced biological methods are used to thoroughly investigate aspects such as the effect of raw materials and products on human skin. This way, innovative formulations can be developed – one of the basic prerequisites for successful product innovations. With more than 15 years of expertise in in vitro research and tissue engineering, Henkel now actively commercializes its alternative cell-based methods.

"For a vast diversity of substances, skin is the site of first contact. Our competence in skin physiology provides solutions for regulatory toxicology as well as for general skin research," says Dr. Dirk Petersohn, Director Biological & Clinical Research at Henkel Beauty Care. "We have been using our innovative skin models for our own research purposes for many years. Now, we want to take the next step and make the Phenion[®] products accessible for other companies, organizations and research institutes."

The tissue models are exclusively produced in R&D laboratories at Henkel's headquarters in Düsseldorf. As an alternative testing method, they significantly contribute to the reduction and replacement of animal testing.

Highly advanced human skin tissue models

The human Phenion[®] Full-Thickness Skin Model consists of both a fully differentiated epidermis, the outermost layer of the skin, and the underlying dermis that contains a natural collagen based connective tissue. "Our skin models are exclusively populated



with primary human cells, thus perfectly mimicking human skin in diverse dimensions, such as histological architecture and a wide spectrum of physiological skin parameters," explains Dr. Dirk Petersohn. The Phenion[®] Full-Thickness Skin Model can be used for various purposes, e.g. to prove the skin compatibility of cosmetic ingredients. The wide range of use includes, for example, histological or immune histochemical assessments, protein analysis and gene expression studies.

The latest innovation – the Phenion[®] Full-Thickness AGED Skin Model – is a surrogate for aged human skin. It mimics mature human skin, both structurally and physiologically. Therefore, it is an excellent research tool to better understand mechanisms of mature skin and respective counter measures.

In addition to these reconstructed tissues, primary human skill cells as well as cell culture media that serve the delicate nutrition needs for individual cell types and 3-dimensional complex skin tissues complement the product portfolio of Phenion[®].

Website: www.phenion.com

Further information on Phenion[®], details on the products as well as the possibility for a request for quotation can be found at <u>www.phenion.com</u>.

About Henkel

Henkel operates globally with a well-balanced and diversified portfolio. The company holds leading positions with its three business units in both industrial and consumer businesses thanks to strong brands, innovations and technologies. Henkel Adhesive Technologies is the global leader in the adhesives market – across all industry segments worldwide. In its Laundry & Home Care and Beauty Care businesses, Henkel holds leading positions in many markets and categories around the world. Founded in 1876, Henkel looks back on more than 140 years of success. In 2016, Henkel reported sales of 18.7 billion euros and adjusted operating profit of 3.2 billion euros. Combined sales of the respective top brands of the three business units – Loctite, Schwarzkopf and Persil – amounted to more than 6 billion euros. Henkel employs more than 50,000 people globally – a passionate and highly diverse team, united by a strong company culture, a common purpose to create sustainable value, and shared values. As a recognized leader in sustainability, Henkel holds top positions in many international indices and rankings. Henkel's preferred shares are listed in the German stock index DAX. For more information, please visit <u>www.henkel.com</u>.

Photo material is available at http://www.henkel.com/press

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