



SKIN MODELS can replace Animal Testing

Applications and further development of the Phenion Skin Model Technologies as alternatives to animal testing were the topics of Phenion's 2nd Technical Workshop

For the 2nd Technical Workshop on "The Phenion[®] Skin Model Technologies And Their Applications" at the Phenion laboratories in Düsseldorf, General Manager Andrea Saettler welcomed appr. 40 experts from academia, industry and authorities: "After our first successful technical workshop only six months ago, we are glad to welcome you now for a second symposium combined with a technical training part covering our skin model technologies and their use for alternatives to animal testing".



From left: Prof. Dr. Yves Poumay from the University of Namur, Belgium, and Dr. Alain Coquette from SGS, Life Science Services – Clinical Research, Belgium, participated as scientific observers in the workshop. Dr. Bart De Wever is the head of business development at Phenion and scientifically active in the area of alternatives to animal testing.

On the first workshop day Phenion scientists described both the production process and options for various applications of the Phenion[®] Full Thickness Skin Model which represents both dermal and epidermal part of human skin. In addition they discussed the potentials of an epidermal tissue technology developed by Prof. Yves Poumay from the Belgium University of Namur who also was present as scientific observer to the workshop. Compared to the full thickness model this epidermal model only represents



the upper part of the human skin, which is especially feasible for certain alternative methods.

Several external speakers from the Johann Wolfgang Goethe University of Frankfurt/Main, Germany, and from Beiersdorf AG, Hamburg, Germany, contributed with their experiences on the application and advantages of the Phenion® Full Thickness Skin Model to the workshop. “It becomes more and more clear that skin and tissue models of various kinds become a good basis for in vitro alternative methods. Scientists in the whole world already achieved a lot but we still see many options for further development especially of tissue models. Many tasks in the area of animal replacement have still to be reached”, Saettler explained.

A vivid discussion was caused by the presentation of Klaus Rudolf Schroeder, head of development alternatives and tissue models at Phenion, on the new „Open Source“ concept for the Namur epidermal model. The concept relates to the idea of a public and free access to information and systems as it is for example known from software where it is realized for Linux. Applied on skin models “Open Source” means that Phenion together with its partners establishes and publishes a production method for epidermal models to empower scientific groups in the whole world to produce the model and further develop it especially for applications in animal alternatives.

“This concept will promote the development of alternative methods based on a harmonized epidermal tissue model, because researchers in the whole world have access to a skin model being produced by a standardized procedure and so giving comparable results”, Schroeder states. “At the same time it is secured that a skin model based replacement method elaborately and costly developed over a long period of time and often funded by public money is sustainably available over the next decades even if the one and sometimes only manufacturer of the skin model terminates its business”.

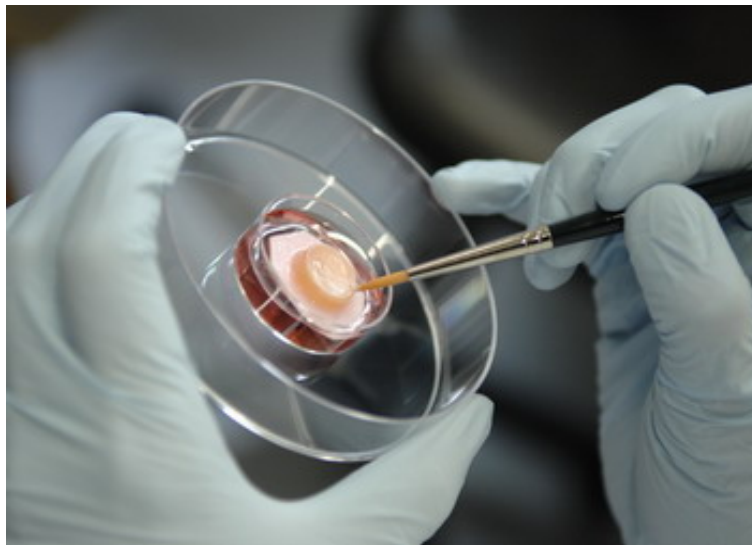
Amongst the participants of the workshop were some experts from authorities and bodies who decide on the applications of animal alternatives. Professor Dr. Horst Spielmann from the Federal German Institute for Risk Assessment in Berlin stated: „The “Open-Source“ concept indeed allows us to reach a new generation of test methods”. However, the scientific observers also articulated their concern on the challenging development of an open source production standard. Production standards need to be developed, distributed over the scientific community and last but not least need to be controlled if the so produced skin models are used for a safety assessment method, Dr. Claudius Griesinger, European Center for the Validation of Alternative Methods (ECVAM), Italy, welcomed the „Open-Source“-concept, gave a critical remark on the checkability of the compliance to a production standard and complimented Phenion on its activities: “An excellent workshop. The quality of the work underlines the leading role of Phenion in the area of alternatives to animal testing. You should be proud and continue to keep up to the level of quality”. And Dr. Philippe Vanparys from Altotoxic, Belgium, was impressed by the high level of presentations. He also complimented Phenion on the quality of the documentations and the usefulness of the standard



operation procedures which were distributed to the participants of the technical part of the workshop.

The second day provided the participants with the opportunity to work hands-on with the Phenion® Full Thickness Skin Model and to perform several methods in the laboratories of Phenion instructed by Phenion's scientists and technicians.

Saettler closed the workshop thanking all participants for good discussions: „We gained many new ideas on potential applications of our models and definitely will take up the challenging tasks formulated to us within the discussions”.



What is a skin model and for which experiments is it used?

At Phenion, the Henkel Competence Center on Skin Physiology & Alternatives to Animal Testing scientists have developed a model of human skin, which is cultured in vitro (in the test tube). The model is based on human skin cells. The skin model is the basis for new in vitro test methods, developed to replace animal testing in the future (alternatives to animal tests). These animal tests are still prescribed by authorities to assess the safety of ingredients of various products.

