

## COURSE DETAILS / REGISTRATION

- When? Tuesday 3 till Friday 6 July 2012 (4 days)
- Costs? € 1250,- (Course materials, lunches and a social program included)
- Registration? [www.cvnt.nl/sensitization](http://www.cvnt.nl/sensitization)

## MATERIALS

Video material with practical instructions, and an instruction manual of the lectures and experiments, will be made available to the course participants.

## CERTIFICATION

After successful participation you will receive a certificate from the University of Applied Sciences (accredited for 2 European Credits).

## ADVISORY BOARD

- Dr. Erwin L. Roggen, Novozymes / 3RsMC, Denmark
- Dr. Susan Gibbs, VU Medical Centre, The Netherlands
- Dr. Emanuela Corsini, Milan University, Italy

## COURSE ORGANIZERS

- Dr. Marc A.T. Teunis, University of Applied Sciences, The Netherlands
- BSc. Johanna Louter - van de Haar, University of Applied Sciences, The Netherlands

## COURSE ADDRESS

Dept. Innovative Testing in Life Sciences & Chemistry  
F.C. Donderstraat 65, 3572 JE Utrecht, The Netherlands

## CENTRUM VOOR NATUUR & TECHNIEK

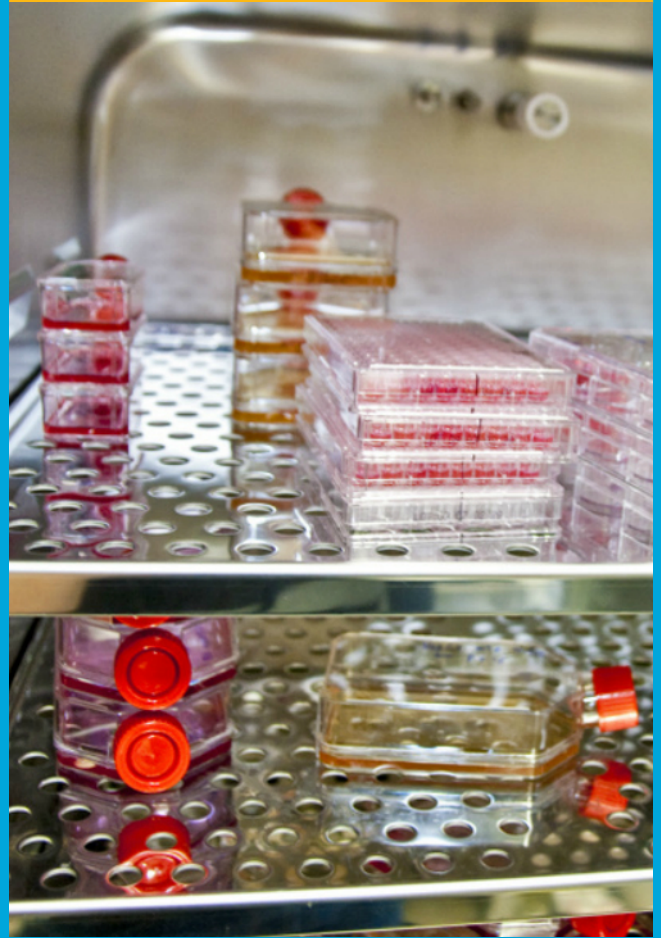
Postbus 182, 3500 AD Utrecht  
Nijenoord 1, 3552 AS Utrecht  
T +31(0)88 481 88 60 E [int.fnt@hu.nl](mailto:int.fnt@hu.nl)  
I [www.cvnt.nl/sensitization](http://www.cvnt.nl/sensitization)



[WWW.CVNT.NL/SENSITIZATION](http://WWW.CVNT.NL/SENSITIZATION)

LIFE SCIENCES AND  
CHEMISTRY

HBO



## IN VITRO MODELS IN [SKIN] SENSITIZATION

- Summer course 2012
- Theoretical lectures
- Practical laboratory experiments



CENTRUM VOOR  
NATUUR & TECHNIEK  
HOOGESCHOOL  
UTRECHT

[WWW.CVNT.NL/SENSITIZATION](http://WWW.CVNT.NL/SENSITIZATION)

# IN VITRO MODELS IN (SKIN) SENSITIZATION

The University of Applied Sciences Utrecht is organizing a summer course in 2012 on the testing methods that are being developed to assess the potential of a chemical to cause allergic reactions of the skin. This course will deal with theoretical and practical aspects of sensitization, pathology, cell culture models, data handling and experimental design. The course span is 4 days, from Tuesday to Friday.

## DETAILS ABOUT SUBJECTS TAUGHT

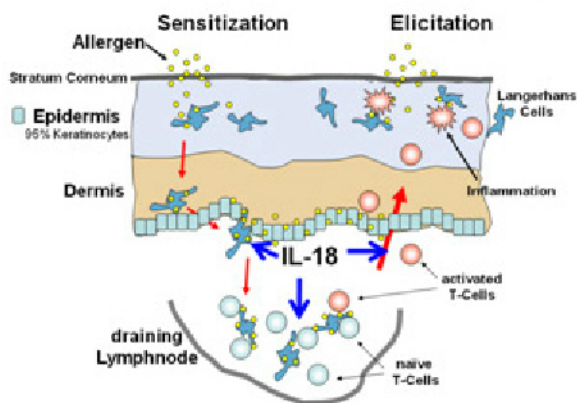
Lectures will deal with several immunological mechanisms in sensitization. For example: haptenization and chemical-protein interactions; secondary immune responses in lymphoid tissue; cytokines and their role in the inflammatory response. Currently available alternative testing methods will be discussed at length, with a special focus on the use of human keratinocytes, dendritic cells and reconstituted skin models. Also data handling and experimental design will be discussed. Lectures will be given by tutors of the University of Applied Science and by international partners.

## PRACTICAL LABORATORY EXPERIMENTS

About half of the course time will be spent on practical laboratory experiments. These experiments include hands-on instructions in the practical application of lectured theory. The experiments will deal with epidermal (NCTC 2544 cells), dendritic (U937 cells) and skin (Epidermal Equivalent) models. In all models typical chemicals (such as skin sensitizers) will be tested.

Techniques used are cell culture; working with reconstituted epidermal skin models; ELISA (different cytokines); cytotoxicity assay and flow cytometry. The course includes a workshop on data gathering and interpretation and the course will be concluded by oral presentations from participants.

## ALLERGIC CONTACT DERMATITIS



## PARTICIPANTS

Participation to the course is anticipated for PhD students, research technicians, researchers and other interested parties.

If you have experience in safety testing, REACH registration of chemicals or if you work in the field of immunology this course could be just the course you are looking for.

## SUBJECTS IN SHORT

This course includes theoretical lectures and practical experiments on (skin) sensitization. After a general introduction on (skin) sensitization we will focus on several mechanistic immunological topics to strengthen your knowledge in this field. A comparison will be made between existing animal models and the currently available in vitro techniques.

The laboratory experiments consist of examples of methods currently under (pre)validation. We focus on human cell lines and reconstituted human skin tissue.

**"Questions? Please, contact me by sending an e-mail to [int.fnt@hu.nl](mailto:int.fnt@hu.nl)."**

Marc Teunis, researcher / course coordinator University of Applied Sciences

