Press Release

VITROCELL® SYSTEMS finds during EUROTOX 2007 growing interest in its in vitro cultivation and exposure systems for the analysis of the effects of nano particles.

The 44th Congress of the European Societies of Toxicology was held in Amsterdam, the Netherlands and closed yesterday on 10. October 2007.

More than 700 scientific presentations were held on various topics such as the newest developments in toxicogenomics, alternatives for animals testing, risk assessment, immunotoxicity, reproductive toxicity, environmental toxicity, genotoxicity and carcinogenesis, endocrine disruption, molecular toxicology, signal transduction, the risks of nanotechnology, REACH and idiosyncratic effects.

VITROCELL® SYSTEMS participated in the exhibition and presented its broad product program of equipment for the in vitro analysis of airborne substances such as gases, nano particles and complex mixtures.

Key interest was shown in the VITROCELL® technology for the exposure of lung epithelial cells to nano materials at the air/liquid interface. Frequently these materials are just added to the cell culture medium which is – according to VITROCELL® SYSTEMS – a method giving relatively low sensitivity due to interaction of the particles with the medium. In using the VITROCELL® direct exposure technology, the cells are first cultivated on membrane inserts (e. g. ThinCerts® from Greiner, Costar® from Corning or Falcon® from Becton Dickenson). The membrane inserts are placed in the VITROCELL® modules which are tempered at 37°C. The medium supply is performed either static or by permanent exchange so that the cells receive the cell culture medium from below through the membrane of the insert. The special aerosol inlets of the module are from stainless steel with a PFA-based surface treatment and deliver the particles to the cells by a low vacuum flow. As the cells are not covered with medium, they are exposed in the most efficient way at air/liquid interface. The same technological approach can be applied also to bacteria.

VITROCELL® SYSTEMS supplies in addition the required aerosol generators as well as turnkey installations. The customers of VITROCELL® SYSTEMS are leading medical and environmental research institutes as well as the pharmaceutical and other industries.

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