

## Press Release

### **VITROCELL® SYSTEMS reports increasing interest in aerosol generators and biological test systems for nano particles at the 2008 SOT Annual Meeting**

The 2008 SOT Conference from March 16-20, 2008 in Seattle/USA was the largest SOT Annual Meeting and ToxExpo ever, with over 6,800 (2007: 6,200) attendees. The program consisted of

- 2362 Abstracts
- 54 Symposia, Workshops, and Roundtables
- 26 Platform Sessions
- 72 Poster Sessions
- 4 Thematic Science Tracks Involving 40 Sessions
  - Developmental Basis of Disease
  - Oxidative Signaling and Redox Biology
  - Nanotechnology
  - Stem Cell Biology and Toxicology
- 306 Invited Speakers (2 Nobel Laureates)

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.

In using VITROCELL® technology, the aerosol can be generated from non-cohesive, dry powders and dusts down to the size of nano particles. The other option is to generate the aerosol from liquids, solutions and suspensions. In this case a dry aerosol can be obtained by a special aerosol generator with an integrated drying unit.

Then direct exposure takes place at the air liquid interface in the VITROCELL® cell cultivation and exposure modules. For this purpose, 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 modules which are tempered at 37°C. The medium supply is performed either statically or by permanent exchange. In both cases the cells receive the cell culture medium from below through the membrane of the insert.

In the direct exposure technology, the test atmosphere is delivered to the cells via specially treated aerosol inlets using a low vacuum flow. As the cells are not covered with medium, they are exposed most efficiently at the air liquid interface and can therefore react in an optimal manner. After exposure, the membrane inserts are taken out of the module and cells are forwarded to standard routines for endpoint analysis.

The VITROCELL® product range helps to reduce animal testing in the field of e. g. inhalation toxicology. For this purpose human cells are cultivated in special exposure modules on membranes and then exposed at the air/liquid interface to the test substances. The same technology can also be applied to bacteria. The customers of VITROCELL® are leading medical and environmental research institutes as well as the pharmaceutical and other industries.

More information:

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Waldkirch, March 2008