

**Media Release – For Immediate Distribution**

## **InSphero 3D Liver Microtissues Featured at Annual SOT Meeting as More Sensitive Model for DILI and Mechanistic Toxicity Testing**

***Customer and company presentations highlight InSphero 3D InSight™ Liver Microtissues as superior toxicology screening tool.***

**Schlieren, Switzerland – March 27, 2017** InSphero [3D InSight™ Human Liver Microtissues](#) were identified as a more sensitive, highly specific *in vitro* model for predicting drug induced liver injury (DILI) and investigating mechanisms of drug toxicity in a series of presentations at the [Society of Toxicology's 56th Annual Meeting \(SOT\)](#), held in Baltimore, Maryland, March 12-16. InSphero produces 3D liver microtissues using its patent-pending [3D Select™ Process](#), which yields standardized 3D models that are pre-validated and certified for use in industry-scale *in vitro* safety and efficacy testing applications.

During the SOT *3D Cell Platforms to Advance Toxicology Sciences* workshop, Dr. William Proctor, Head of Investigative Toxicology at Genentech, presented data from an intensive validation study conducted by Genentech and AstraZeneca. The study revealed InSphero Human Liver Microtissues provide twice the sensitivity as traditional primary human hepatocyte (PHH) assays in predicting toxicity of clinically known DILI drugs. Dr. Proctor cited a specific case study in which a blinded compound had shown elevated liver enzymes in Phase I clinical trials in patients. The compound had escaped detection by traditional *in vitro* screens, but was detected by InSphero 3D InSight™ microtissues at concentrations that reflected clinically relevant dosing levels. Dr. Proctor indicated the model has been instituted in the Genentech group as a secondary (Tier 2) DILI screen.

Commenting on the presentation, InSphero Chief Executive Officer and Co-founder Dr. Jan Lichtenberg, says, "This study provides convincing evidence that InSphero liver microtissues deliver higher sensitivity without sacrificing specificity. Having two of the world's leading pharmaceutical companies produce this collaborative, thorough validation further confirms that our 3D models not only reflect *in vivo* biology, but also deliver the reproducibility and scalability required to meet the early stage screening demands of large pharma. Our [assay-ready 3D InSight™ models](#) offer a cost-effective, turn-key solution that gives toxicologists greater confidence when characterizing risk in lead compound sets."

Additional SOT presentations highlighted the InSphero suite of human and animal-derived liver microtissues for investigative toxicology applications. A novel assay for detecting mitochondrial toxicity was described in collaborative work with Agilent Technologies. Using the Seahorse XF<sup>®</sup>96 Analyzer to monitor mitochondrial respiration, InSphero 3D InSight™ Human Liver Microtissues displayed a 6-fold increase in spare respiratory capacity compared to 2D PHH, thus providing a significantly larger assay window for detection and classification of mitochondrial liabilities. Oral and poster presentations described the advantages of InSphero rat, monkey, and dog liver microtissues for cross-species analysis of DILI and *in vitro* mechanistic toxicity studies to reduce the need for costly and ethically charged animal studies.



InSphero AG  
Wagistrasse 27  
CH-8952 Schlieren  
Switzerland  
Tel: +41 44 515049-0  
Fax: +41 44 515049-1  
[www.insphero.com](http://www.insphero.com)

For more information about InSphero 3D InSight™ Human Liver Microtissues and 3D InSight™ Testing Services, visit [www.insphero.com](http://www.insphero.com).

###

### InSphero contacts

Dr. Randy Strube  
Director of Global Marketing  
Phone +1 800-779-7558 ext. 102  
[randy.strube@insphero.com](mailto:randy.strube@insphero.com)

Dr. Jan Lichtenberg  
Chief Executive Officer and Co-founder  
Phone +41 44 5150490  
[jan.lichtenberg@insphero.com](mailto:jan.lichtenberg@insphero.com)

### About InSphero

InSphero provides superior biological relevance to *in vitro* testing with its easy-to-use solutions for production, culture and assessment of more organotypic 3D cell culture models. The company's patented [technologies](#) include the 3D Select™ Process (pending) and scaffold-free 3D cell culture plates that enable large-scale, reproducible production of a broad range of assay-ready 3D InSight™ Microtissues derived from liver, pancreas, tumor, heart, brain and skin. These models and contract research services utilizing them help to identify promising drugs and toxic liabilities with greater predictivity at early development stages, enabling better pre-clinical decision making, saving development cost, and shortening time to market. InSphero technologies drive significant findings in [peer-reviewed journals](#), through collaborative projects such as [EU-ToxRisk](#) and [HeCaToS](#), and have gained validation in the world's largest government institutions and pharmaceutical, chemical and cosmetics companies. This 3D know-how is also being applied in the diagnostics field to aid development of personalized chemotherapeutic strategies for the treatment of cancer.

Founded in 2009, the privately held company is headquartered in Schlieren, Switzerland with subsidiaries in the United States (Brunswick, ME) and Waldshut, Germany. It has been recognized for its scientific and commercial achievements with several national and international [awards](#).

Follow us on [Twitter](#) and [www.insphero.com](http://www.insphero.com).

### Images



InSphero 3D InSight™ Human Liver Microtissues provide greater confidence to pharmaceutical drug discovery and development groups in their efforts to predict drug-induced liver injury *in vitro* prior to testing in animals or patients.