

## Media Release – For Immediate Distribution

# Novel 3D Cell-based Assays Accelerate Discovery for Immunology/CAR-T Therapies

***InSphero presents latest data demonstrating immune cell interaction with 3D tumor models for *in vitro* efficacy testing of oncology drugs and immunotherapies at AACR.***

**Schlieren, Switzerland – April 3, 2017** InSphero AG highlighted the unique advantages of its physiologically relevant 3D InSight™ Microtissue Platform to drive more efficient development of anti-cancer drugs and immuno-oncology (I-O) approaches at the [American Association of Cancer Research \(AACR\) Annual Meeting](#) in Washington, DC. The presentations included data generated in collaboration with academic, government, and industry partners.

“Our presentations at this year’s AACR meeting display not only the variety and complexity of tumor models we can produce through our [Custom Tumor Microtissue Development Service](#), but also the breadth of applications for which they can be used throughout the drug development pipeline,” said Dr. Jens Kelm, InSphero Chief Technology Officer and Co-founder. “These range from early discovery screens in cell-line based 3D microtissue models in [384-well format](#) to more complex pre-clinical development and validation studies, using co-cultures of fibroblasts with cancer cell lines or patient-derived xenograft (PDX) samples.”

In addition, InSphero presented data demonstrating the infiltration of activated immune cells, such as peripheral blood mononuclear cells (PBMCs), into tumor-stromal co-culture models. “Recent successes in I-O therapies for blood-borne cancers has triggered the race in pharma for similar strategies targeting solid tumors,” Dr. Kelm said. “Our technology provides the first turnkey 3D platform for mimicking complex solid tumor environments *in vitro*. It is designed specifically for the development and optimization of CAR-T, CAR-NK, or immunomodulatory based I-O strategies.” InSphero scientists recently showed that activated PBMCs can penetrate tumor-stromal microtissues and specifically kill tumor cells. The findings were published in a [collaborative study with Roche Pharmaceutical and ETH Zurich](#) in the January 2017 issue of the journal *Cancer Immunology, Immunotherapy*.

“We have presented work done in collaboration with the University of Zurich as well, where we’ve created microtissues directly from patient tumor biopsy material,” Dr. Kelm said. “This approach holds potential for *in vitro* testing in the clinical phase to help identify a personalized treatment plan using drugs most effective against the biopsied material cultured in 3D.”

In addition to custom model development, InSphero offers 3D InSight™ Oncology Services, including single or combinatorial drug testing, tumor relapse, and antibody penetration assays, all of which can be conducted on customized tumor microtissues, or on established tumor-stromal co-culture models.

## InSphero AACR Poster Presentations

Wednesday, April 5 (8 AM – 12 PM)

**Poster 5781/17 (Section 38):** Establishment of a 3D *ex vivo* assay as a preclinical drug testing platform for personalized cancer therapy. *Presented by Dr. Sumeer Dhar, InSphero AG (collaboration with University of Zurich).*

Wednesday, April 5 (8 AM – 12 PM)

**5780/16 (Section 38):** 3D *ex vivo* assay platform using primary lung cancer cells in malignant pleural effusions as predictors for clinical outcome of personalized chemotherapy. *Presented by Cheng-guang Wu, University of Zurich (collaboration with InSphero AG).*

### **In-booth Poster Presentations**

Booth 1029 (Sunday 12 PM – Wednesday 12 PM, during exhibition hours)

- *Evaluation of immuno-therapeutic efficacy in biologically relevant 3D tumor microtissue models*
- *InSphero's oncology platform for accelerating drug discovery and development*

For more information about InSphero 3D InSight™ solutions for oncology, visit [www.insphero.com](http://www.insphero.com).

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### **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.



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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](#).

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## Images



InSphero 3D InSight™ Tumor Microtissues and 3D InSight™ Oncology Services help drug discovery and development groups identify more effective cancer drugs by providing more relevant 3-dimensional cell based models for *in vitro* efficacy testing.