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Media Release – For Immediate Distribution

InSphero and NCATS to Present Collaborative 3D Cancer Screening Study at SLAS2016 Annual Meeting

Study describes high-throughput compatible screening assay using 3D tumor microtissue models to classify efficacy, toxicity, and mechanism of action for compounds in NIH Oncology Library.

Schlieren, Switzerland – January 25, 2016 – InSphero AG, the leading supplier of easy-to-use solutions for production, culture, and assessment of organotypic 3D cell culture models, will present preliminary findings from studies in collaboration with the NIH National Center for Advancing Translational Sciences (NCATS) and NMI Technologietransfer GmbH, at today's annual meeting of the Society for Laboratory Automation and Screening (SLAS) in San Diego, California. Data summarizing screens of 40 compounds from the NCATS Oncology Library in 3D ovarian and pancreatic tumor microtissues will be presented by InSphero CSO and co-founder Dr. Jens M. Kelm during Monday afternoon's Assay Development & Screening poster session.

InSphero and NCATS announced a collaboration in 2014 to develop improved phenotypic high-throughput screening (HTS) methodologies incorporating highly biologically relevant 3D tumor microtissue models that more closely mimic the *in vivo* tumor microenvironment than traditional 2-dimensional monolayer cell culture. 3D tumor microtissue co-cultures from ovarian or pancreatic tumor cell lines with stromal fibroblasts were generated using InSphero's patented hanging drop technology. Stromal fibroblasts were engineered to express a secreted reporter to simultaneously assess both anti-tumor efficacy and non-specific cytotoxicity. Initial findings from the collaboration confirmed more than 50% of the 40 compounds tested displayed greater potency against ovarian and pancreatic tumor cells grown as 3D microtissues than to the same cells grown in monolayer. Furthermore, the screen identified three compounds that showed anti-tumor efficacy in ovarian tumor microtissues only in the tumor/fibroblast co-culture model, highlighting the potential importance of mimicking heterogeneous tumor microenvironments when conducting such high-throughput *in vitro* screens.

Dr. Kelm notes that incorporating advanced multi-cell type 3D models derived from these and other types of cancer is critical to improving the translational value of *in vitro* screens. "Here we've established a multi-parametric phenotypic screening method that not only factors in tumor size and cell viability, but also discriminates between anti-tumor and non-specific toxic effects of compounds. Using these results, we can determine a therapeutic index value by which compounds are ranked for their potential efficacy and specificity toward a particular cancer, using models that more accurately reflect *in vivo* tumor biology."

In addition to Dr. Kelm's poster presentation, InSphero microtissues and high-throughput screening and imaging concepts will be featured during several events at SLAS2016, including two exhibitor tutorials and other collaborative posters.

For more information about NCATS, visit www.ncats.nih.gov.

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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 3D cell culture platforms and methods 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 Body on a Chip 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 a number of national and international awards.

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