

Media Release – For Immediate Distribution

InSphero Announces Collaboration with NIH National Center for Advancing Translational Sciences (NCATS)

Joint study will accelerate development of physiologically relevant 3D models for anti-cancer drug screening.

Schlieren, Switzerland – May 3, 2017 InSphero AG today announced a collaboration with the National Center for Advancing Translational Sciences (NCATS), part of the National Institutes of Health, to identify anti-cancer agents with cytotoxic activity in 3D tumor models. In this joint project, NCATS will use patient-derived xenograft (PDX) tumor microtissues, provided by InSphero in its 384-well microtissue platform, to screen a library of anti-cancer agents for anti-tumor efficacy using assays that measure cell proliferation, tissue integrity, and tissue size.

“For cancer drug discovery, it is of critical importance to have models that are physiologically relevant,” says InSphero Chief Technology Officer and Co-founder Jens M. Kelm, Ph.D. “3D microtissue models provide a more accurate reflection of the tumor and its extracellular environment.” The latest generation of PDX-derived 3D tumor microtissues from InSphero capture the heterogeneity of tumor cell populations, making them ideal for investigating special tumor cell sub-populations, including cancer stem cells (CSCs) or tumor-initiating cells. These cells have self-renewal potential and are thought to drive tumor formation and metastasis. CSCs appear to be resistant to current chemotherapy and radiation-therapy treatments leading to cancer recurrence, thus there is a heightened interest among oncologists to be able to screen therapeutic agents that target CSCs and other tumor cell sub-populations.

“To unlock the full potential of more relevant models to foster drug development we need to be able to integrate patient-derived 3D cancer models into the drug screening process as early as possible,” says Dr. Kelm. InSphero will work closely with researchers at NCATS to evaluate how PDX-derived tumor microtissues can be applied in primary and secondary screening campaigns using small to mid-size compound libraries.

“Our project with InSphero is another example of how NCATS fosters collaborations to explore novel technologies that may accelerate discovery of molecular therapeutic agents across multiple disease areas,” says Anton Simeonov, Ph.D., scientific director of NCATS’ Division of Pre-Clinical Innovation.

For more information about NCATS, visit <https://ncats.nih.gov>.

For more information about InSphero, visit www.insphero.com.

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About InSphero

InSphero sets the standard for *in vitro* testing of novel drugs in the pharmaceutical and biotechnology industry with comprehensive solutions that provide greater confidence in decision making. Its robust and highly physiologically relevant suite of 3D InSight™ Microtissues and Services are used by major pharmaceutical companies worldwide to increase efficiency in drug discovery and safety testing. InSphero patent-pending technologies and methods enable large-scale, reproducible production of scaffold-free 3D microtissues driven solely by cellular self-assembly. The company specializes in delivering assay-ready and custom 3D models derived from liver, pancreas, and tumor tissues, to provide unrivalled biological insight into liver toxicology, metabolic diseases (e.g., diabetes and liver diseases), and oncology (with a focus on immuno-oncology). All InSphero microtissues are thoroughly validated to ensure the highest quality, certified for use in a variety of assays, and shipped globally to customers in a patented, easy-to-use spheroid-optimized platform, ready for research. Field application scientists and research staff with expertise in working with 3D models help ensure efficient integration and onsite training as needed. For customers who prefer an outsourcing strategy with fast turnaround, InSphero also offers contract research services utilizing their 3D microtissue models.

InSphero 3D InSight™ solutions drive significant findings in [peer-reviewed journals](#), through collaborative industry initiatives such as [EU-ToxRisk](#) and [HeCaToS](#), and have gained validation in the world's largest government institutions and pharmaceutical, chemical and cosmetics companies.

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

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