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Media Release – For Immediate Distribution

ADA Presentations Highlight Superior Functionality of InSphero Standardized Islet Microtissues for Diabetes Drug Screening

ETH Zurich researchers present single-islet study using novel microfluidic setup to display* in vivo*-like temporal insulin response to high glucose

Schlieren, Switzerland – June 19, 2017 InSphero AG highlighted unique advantages of its physiologically relevant 3D InSight™ Islet Microtissue Platform to drive more efficient development of anti-diabetic drugs at the American Diabetes Association 77th Scientific Sessions in San Diego, CA. Also, a pioneering study describing a microfluidic single islet perifusion platform, developed by researchers at the ETH Zurich, was presented during open and moderated poster sessions held during the conference.

Dr. Burcak Yesildag, islet product manager at InSphero and presenter of the study at ADA says, "Loss of first phase, reduction in the second phase and impairment of the oscillatory pattern of insulin secretion are characteristic features of type 2 diabetes. Therefore, study of dynamic insulin release with *in vitro* perifusion assays is a crucial component of pancreatic islet research. However, inherent heterogeneity in islet size and composition necessitates pooling of multiple islets for each experimental condition, which entails inefficient use of donor material and decreased experimental resolution due to uncoordinated inter-islet function."

InSphero 3D InSight™ Islet Microtissues - uniform in size, cellular composition and function – were combined with a novel microfluidic system engineered by Dr. Andreas Hierlemann's research group at the Swiss Federal Institute of Technology (ETH). The microfluidic system facilitates rapid glucose switches and short sampling intervals, making it possible to study dynamic insulin secretion at the single-islet level *in vitro*.

Says Yesildag, "ETH observed an organotypic biphasic and pulsatile secretion of insulin from our islet microtissues which was physiologically modulated by various insulin secretagogues. The results very closely mirrored the magnitude and frequency of the response seen in humans. This collaboration provides further evidence that the *in vivo*-like functionality of our islet model makes it a powerful new tool for islet researchers to help accelerate anti-diabetic drug development."

3D InSight™ Islet Microtissues are a standardized primary islet model developed by InSphero that display organotypic function with an average 13-fold increase in glucose-stimulated insulin secretion (GSIS) for at least 28 days in culture.

For more information about InSphero 3D InSight™ Islet Microtissues, visit www.insphero.com or watch the video.

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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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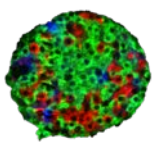
Images



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