

Entrepreneurial ID «venture leaders» 2010



Name: Jan Lichtenberg
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Project/ Company name: InSphero AG

Short description: InSphero enables pharmaceutical companies to predict efficacy and potential toxic effects of new drugs much earlier thus saving development cost and time.

Web site: www.insphero.com

Industry: Life Science

The Start-up	
Status : <i>Founded on 26.03.2009 as AG, operational in own labs</i>	Company / team size: 7
Product / service: <i>Our biological microtissues resemble living, organic tissue in terms of structure and function and therefore enable biologically relevant tests during the laboratory phase of pharmaceutical development. This helps eliminating unsuccessful substances much earlier in the development process thus saving cost and freeing resources to bring the successful drug on the market faster. InSphero's ready-to-use microtissues are cultured at our labs and delivered to our customers in our patent-pending Gravity^{plus} culture plate, which allows direct use at the customer lab.</i>	
Target customers: <i>Pharmaceutical and cosmetics companies (e.g. we have ongoing projects with Novartis and others)</i>	
Financing: <i>Currently self financed, first investment round (1.8 mio CHF from BAs to be closed in April 2010)</i>	
Growth objectives: <i>In 5 years, InSphero is the #1 supplier of biological microtissues and assays for pharmaceutical companies around the globe generating a turnover of 40 mio CHF with 60 employees.</i>	
US objectives: <i>Immersion in US entrepreneurial culture to meet prospective customers, strategic partners and academic allies</i>	
Description: <i>One of the most pressing problems in the pharmaceutical industry is the lack of early predictability of the efficacy and potential toxic side effects of new drugs at the laboratory stage. In most cases, problems with new substances are only identified during the expensive preclinical and clinical trials. Today, 80-90% of the substances that enter the trial phase after successful laboratory testing turn out to be failures. To solve this problem, InSphero has developed a new culture method for biological cells, which allows the formation of microtissues which are similar in structure and functionality to native, organic tissue. These microtissues make automated testing of new substances against various organ models possible, including liver, heart, neural tissue and tumors. For instance, InSphero's liver microtissues maintain their liver-specific functionality for weeks compared to 3-4 days for conventional technologies and therefore allow long-term toxicology in a test tube for the first time. Laboratory tests have shown that InSphero's liver microtissues even reach the same level of protein production as a healthy human liver, which is 50 times better than the company's best competitor. A further key advantage of InSphero's technology is the compatibility with standard liquid handling and laboratory processes, which makes the implementation straight forward and efficient.</i>	
Achievements: <i>InSphero has first products on the market (tumor microtissues off the shelf and liver microtissues in pilot studies), has acquired paid pilot projects with three global pharmaceutical companies and is currently in first licensing negotiations. The company has secured exclusive licenses for two patents protecting the cell culture plate and assay. With its sales team, InSphero is present at international fairs and launches its products in the US in April 2010.</i>	

The venture leader (and his team)
<p>InSphero is Jan's second start-up after a successful premiere with AMMT GmbH, a semiconductor technology supplier founded in 1998. He is an engineer by training (Bremen, EPF Lausanne, Neuchâtel, ETH Zurich) with a PhD in micro-technology. Jan gained over 5 years industry experience as a VP of Engineering and Product Management at Uwaterc/JOI (consumer electronics, US headquartered) and Hocoma AG (medical robotics, Switzerland) leading teams of 30 co-workers. In July 2009 he followed his calling as an entrepreneur and left his job to start InSphero as a CEO together with co-founders Jens Kelm, Wolfgang Moritz and Simon Hoerstrup. Jens is a skilled biotech engineer with more than 10 years experience in tissue engineering, Wolfgang has an excellent experience in cell culture and assays, and Simon is a world-renown expert in therapeutic tissue engineering.</p>

