





October 24, 2022.

The First Italian Organs-on-Chip Industry Workshop held in Genoa. BiomimX<sup>®</sup>, IVTech and React4Life, the three Italian players in the field, are bringing together international experts and researchers for the first-of-a-kind event in Italy.

**BiomimX®**, **IVTech and React4Life**, the three Italian players that are revolutionizing the biomedical research in Italy, partnered and organized the first Italian Organs-on-Chip Industry Workshop in Italy.

The event, held in Genoa, gathered together great experts in the fields of Tissue Engineering and Translational Medicine, who gave their personal perspective on how the emerging Organs-on-Chip applications are fostering the advancements of the biomedical research.

Leading researchers from the University of Genoa, the European Institute of Oncology and San Raffaele Hospital, described the advances in their research projects obtained by using these cutting-edge technologies. Prof. Ivan Martin, one of the key opinion leader in the field of Tissue Engineering and 3D models worldwide, has traced the future developmental trends in advanced cell culture.

Another important speech was given by Dr Lena Smirnova, researcher of the Johns Hopkins University Center for Alternatives to Animal Testing (CAAT) and president of the international program MPS, the association that brings together regulatory bodies, international companies and scientific organizations to share the latest scientific findings, discuss progress and promote communication among pioneers in the field of microfisiological systems.

The final hands-on demo session was an opportunity to instruct the participants on the use of these cutting-edge *in-vitro* alternative methods, that allow to obtain more predictive data. This advance in the research will facilitate the development of more effective and safer therapies, ultimately leading to a decisive impact on patients' health.

The common goal of the Companies is to spread these new technologies to make researchers and institutions aware of the impact that they can bring to the entire society, overcoming current limitations in the development of therapies and paving the way for safer and more personalised solutions.

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## About BiomimX®

BiomimX<sup>®</sup> is an innovative startup founded in 2017, as a spin-off of Politecnico of Milano. BiomimX<sup>®</sup> develops organs-onchip (OoC) platforms to generate advanced predictive in-vitro models of human organ functions and diseases for testing the efficacy and toxicity of new pharmaceutical products. The key technology of the platform, called uBeat<sup>®</sup>, allows for the functional replication of human tissue by applying a proprietary controlled mechanical stimulation protocol to 3D cell constructs. The human cells, either primary or stem cells, are grown within beating miniaturized devices defined as "beating Organs-on-chip". The pipeline of BiomimX<sup>®</sup> biological models is rich and it encompasses several organs and disease solutions with different level of complexity, confirming the versatility of uBeat<sup>®</sup> platforms as advanced *in vitro* preclinical tools. In addition to the established uHeart, uKnee and uScar models, BiomimX<sup>®</sup> team is validating new Organs-on-Chip models (e.g., uGut, uHeart+Liver..) to replicate relevant pathophysiological processes involved in drug metabolism or in disease onset.

Get more info: visit our <u>website</u>, <u>LinkedIn</u> page and our <u>YouTube channel</u>. Contact us at: <u>info@biomimx.com</u>, +39 0237902246

## About IVTech

IVTech is a biotech company founded in 2014 by 4 bioengineers, as a spin-off of the University of Pisa. Since the beginning, the efforts were focused on the development of a new technology useful to realize advanced in-vitro models. Currently the company is not anymore a spin-off, but the R&D philosophy permeates the young team. The goal of IVTech is to contribute to the health of the people, improving the predictivity of in-vitro models. In particular, the mission is to fill the lack between a 3D and static in-vitro model with a more complex scenario, highly representative of the human reality, characterized by a dynamic environment and a cross modulation between different tissues. This is the so called 5D in-vitro model. The wide range of application scenarios covers the tests of new pharmaceutical, nutraceutical or cosmetic compounds, as well as the identification of biomarkers in disease models. The technology and services that IVTech commercializes in Italy and outside the Italian borders are based on the LiveBoxes, transparent and reusable cell culture chambers. These products are standardized in dimensions if compared with the multiwell plate slots or transwell, allowing for the use of standard cell culture and monitoring protocols. The whole platform, including the peristaltic pump LiveFlow, used to replicate the the dynamic effect of blood in human circulation, can be easily moved from the cabinet to the incubator, allowing for long term experiments (e.g. months).

IVTech releases at least a new product/year, introducing technology useful to mimic the pathological envitonmental conditions, such as the increase of pressure typical of certain diseases such as the hypertension or the glaucoma.

Please take a look at web site (www.ivtech.it) and our YouTube channel to evaluate the application scenario of our products.

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## About React4Life

React4life is an Italian biotech company founded in 2016 after more than 15 years of R&D by Silvia Scaglione and Maurizio Aiello, together with a multidisciplinary team of experts, with the ambition to turn the promise of biomedical research, such as the understanding of diseases and the development of personalized therapies, into concrete benefits for society. Scientists can finally rely on a new enabling technology to recapitulate human biology in the lab: MIVO® (Multi In Vitro Organ). The React4life's patented organ-on-a-chip can host and culture 3D human biological cells or tissues under fluid dynamic conditions as in vivo, overcoming the limitations of current pre-clinical assays while reducing the use of animal testing. This cutting-edge microphysiological system was named Best Health Tech 2021 by the European Commission, and thanks to its design, it can replicate connections of the human body, hosting different connected organs. In particular, MIVO® allows the growth of human tumour models together with immune cells to test new personalized therapies and immunotherapy drugs, which represent the frontier for the treatment of many oncological diseases.

Learn more at www.react4life.com and follow us on LinkedIn. Contact us <u>info@react4life.com</u>, +39 010 980110

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