

Media Release

The Swiss Medtech Award 2022 goes to AlveoliX Miniature lung replaces animal testing and advances personalised medicine

Bern, 14 June 2022 – At today's Swiss Medtech Day – Swiss medical technology industry's most important event with over 550 attendees – Bernese start-up AlveoliX was awarded the Swiss Medtech Award, and prize money totalling CHF 75,000. AlveoliX, founded in 2019, has created a small-scale replica of the human lung called «Lung-on-Chip» that can also mimic respiratory motions. According to the jury, this organ-on-chip technology has the potential to establish itself as the new standard in preclinical drug development, as a leading alternative to animal testing, and to significantly advance personalised medicine.

Today, the young Bernese company AlveoliX was awarded the Swiss Medtech Award, Swiss medical technology industry's coveted innovation prize worth CHF 75,000, for its «Lung-on-Chip» technology. Dr Nina Hobi and Dr Janick Stucki, co-CEOs of AlveoliX, and their team have been able to recreate human lung function on a miniature scale. The lung-on-chip model simulates the microenvironment of the lung, including its respiratory movements. A thin, porous membrane facilitates the cultivation of human lung cells under extremely realistic physiological conditions. In this natural environment, cells react as they would in the human body. «Our technology increases the efficiency and safety of drug development and enables more personalised testing by using cells from each individual patient on the chip. In the future, our technology will help to reduce costs, as well as animal testing,» says Janick Stucki, describing the young company's goal. «We are already collaborating with large pharmaceutical companies who are using our technology to test their drugs in development. We then compare the results of our chip with existing data from preclinical and clinical studies,» Nina Hobi elaborates on the crucial step that AlveoliX includes on their way to product marketing.

Peter Biedermann, Director of Swiss Medtech, is impressed not only by the inventive achievements, but also by the company's entrepreneurial vision to achieve a breakthrough in the marketing of its technology. «In Switzerland, resourceful ideas unfortunately too often fail on the way from prototype to market-ready product. Our country must make additional efforts to overcome this gap in translation. This would not require more funding, but rather a targeted redirection of existing funds to innovation projects with the greatest market potential, and the payment of capital directly to companies,» says Peter Biedermann, describing one of the goals the association is advocating at a political level. According to jury president Prof. Mirko Meboldt, ETH Zurich, AlveoliX and its interdisciplinary team have created a product «that sets new standards in drug development and has the potential to become a forerunner in the field of personalised medicine».

The jury and the audience also honoured the impressive achievements of the other two finalists. [Biospectal SA](#) made it to the top three with a smartphone application that measures blood pressure, and [Healios AG](#) thanks to smartphone technology that monitors the neurological functions of multiple sclerosis patients.

Protecting our advantages

As Head of the Federal Department of Economic Affairs, Education and Research (German, WBF), key speaker Federal Councillor (Bundesrat) Guy Parmelin underlined the immense importance of the medtech industry for Switzerland: «The approximately 1,400 companies and 63,000 employees generated a turnover of 18 billion Swiss francs in 2019 – 12 billion of which came from exports». The underlying reasons for success are clear: «The medtech industry benefits from supportive and reliable framework conditions in Switzerland; in particular, highly qualified specialists, concentrated hubs of research and innovation, and access to a thriving capital market.» He also acknowledged that the economic situation has deteriorated significantly due to the Covid crisis and the war in Ukraine. The decision of the European Union (EU) not to update the agreement on mutual recognition of conformity assessments (MRA) with Switzerland presents an additional challenge for the industry. The Minister of Economic Affairs and Education, however, is impressed at the response, stating «The Federal Council is aware of the added strain on the medtech industry. Nevertheless, companies were well prepared. They reacted quickly and implemented effective measures to limit the damage.» The Federal Council is also addressing the shortage of skilled workers with the utmost attention, with a wide range of support programmes in the pipeline.

About Swiss Medtech Award and the Swiss Medtech Day

Swiss Medtech first launched the Swiss Medtech Award competition in 2018. The prize money of CHF 75,000 – sponsored by the [Lichtsteiner Foundation](#), [Sonova Group](#), [Straumann Group](#), and [Ypsomed](#) – recognises outstanding achievements in the Swiss medical technology industry. The jury chaired by Prof. Mirko Meboldt, ETH Zurich evaluates candidates according to the patient benefit, improvements in healthcare, and technological pioneering spirit. The winning team is announced each year during Swiss Medtech Day. Other event partners include [Innosuisse](#) (the Swiss Agency for Innovation Research) and [konplan systemhaus ag](#). The main sponsors of the Swiss Medtech Day are [be-advanced AG](#), [Dassault Systèmes](#), [Helbling Technik](#) and [Zühlke](#).

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Swiss Medtech represents more than 700 members in its role as industry association for Swiss medical technology. With 63,000 employees and a contribution of 16.4% to the positive trade balance, medical technology is an economically significant sector in Switzerland. Swiss Medtech advocates for conditions that enable the medtech industry to perform at peak capacity and provide first-class medical care.

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