Press Release

Inauguration of Wyss Zurich

Turning innovation into practical solutions more quickly

Zurich, 7 December 2015

Wyss Zurich had its official opening today in the presence of Federal Councillor Johann Schneider-Ammann and Hansjörg Wyss, whose donation made the center possible. The aim of the joint development center created by ETH Zurich and the University of Zurich is to take innovative ideas from basic research and apply them in practice as quickly as possible.

Switzerland holds a leading global position in the field of basic research, but it still takes too long to transition knowledge from basic or pre-clinical research into a new medical treatment or product. Swiss entrepreneur and philanthropist Hansjörg Wyss wants to change this, “Breakthrough discoveries in medical and technological fields have to be made available as soon as possible for the benefit of menkind,” he says. “I want to help accelerate the translation process and build a bridge between basic research and application.”

The Wyss Translational Center Zurich (Wyss Zurich), founded jointly by ETH Zurich and the University of Zurich through a USD 120 million donation from Wyss, should fulfil this goal. The interdisciplinary development center, operational since March, is situated at the interface between medicine, natural sciences and engineering.

From idea to finished product

Wyss Zurich brings together exceptional talent from multiple disciplines at ETH Zurich and the University of Zurich under one roof, allowing researchers direct access to required resources and broad expertise. Wyss Zurich focuses on four promising areas of regenerative medicine, led by founding co-director Simon Hoerstrup, and robotics, led by founding co-director Roland Siegwart. The team of young entrepreneurs working at Wyss Zurich are assisted by experienced experts from industry and business, and are actively supported in building a network and creating spin-offs.

Four projects are currently being pursued at full speed: *Liver4Life*, *LifeMatrix*, *HeartOne* and *Zurich Eye*.

The *Liver4Life p*roject aims to develop a perfusion system that makes it possible to grow a healthy piece of liver tissue outside a patient's body until it is large enough to replace the diseased part of their own liver. This reduces the risk of rejection as the body's own tissue is transplanted. This method could also be used in allogenic liver transplantation, in which one donor liver would be able to benefit multiple recipients.

One out of 100 children is born with a heart defect. The synthetic prosthetics frequently used in such situations today, such as heart valves and blood vessels, cannot grow with the child, resulting in numerous surgical procedures. Developed at Wyss Zurich, *LifeMatrix* is a tissue grown from human cells in the laboratory that can regenerate and develop along with the growing heart.

HeartOne also deals with the heart. Numerous people suffer from life-threatening heart failure and require artificial heart pumps to compensate for insufficient pumping capacity. The project will develop significant improvements in the biocompatibility, control and operation of existing cardiac assist pumps.

Today's robots cannot orient themselves in unknown environments without outside assistance (e.g., GPS). The *Zurich Eye* project focuses on the development of a camera-based positioning system that autonomously uses plans from its surroundings to enable exact positioning. This system is intended to enable autonomous navigation for vehicles and aircraft in disaster operations, transport and agriculture, and also aid people in various tasks.

Other promising projects soon to be launched include treatments that will help with diabetes and spinal cord injuries. One project to treat multiple sclerosis has already begun.

Two strong partners

"In contrast to long-term initiatives pursued by the two Zurich universities, Wyss Zurich focuses on the rapid implementation of existing ideas. Wyss Zurich was conceived as a kind of speedboat for translational research," says Lino Guzzella, President of ETH Zurich. Developments from the research should benefit patients and product applications as soon as possible. Guzzella and his colleague Michael Hengartner, President of the University of Zurich, are very grateful that Wyss has made this possible through his generous donation. "The donation provides us with the extraordinary opportunity to bring together our expertise in one location and drive the development of potentially life-saving measures and products," adds Hengartner.

The fact that ETH Zurich and the University of Zurich are not only geographically but also figuratively speaking on the same page was emphasised by Hengartner and Guzzella in their speeches. Cooperation, particularly in the field of medicine and health sciences, has a long tradition and the two universities, as well as the University Hospital Zurich, bring their own qualifications and strengths, as currently demonstrated by the long-term initiative Hochschulmedizin Zürich (university medicine Zurich).

Collaboration is also good for business

In his closing remarks, Schneider-Ammann emphasised that initiatives such as Wyss Zurich are also very important at a national level because they help ensure that Switzerland remains a recognised and strong location for research and innovation – not least because of the solid collaboration, “Although competition is good for business, cooperation is simply essential in certain specific fields.” He is impressed by Wyss Zurich, “I am convinced that the Wyss Translational Center Zurich will become a beacon in Switzerland’s innovative research and higher education landscape.”

www.WyssZurich.uzh.ch →

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