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Life Science Zurich Impact Conference 2025

The precision medicine of tomorrow

At the 4th Life Science Zurich Impact Conference, everything revolved around precision medicine and artificial intelligence. Around 300 people from the worlds of research, business and healthcare took part on May 26 2025.

It's probably the same for all of us: As medical patients, we want to be perceived in our individual situation. “One size fits all” in the sense of the same pill in the same dose for everyone affected by a particular disease should be a thing of the past. Precision medicine has set out to take into account our very different life circumstances - from genetics to age to dietary style. Taking this into account generates enormous amounts of data, which is why artificial intelligence (AI) is increasingly being used to analyze it. Precision medicine and AI are therefore closely linked - and were also the joint topic of the 4th Life Science Zurich Impact Conference.

Every two years, the event brings together representatives from science, healthcare and business to engage in dialog and jointly advance translational medicine. In addition to keynote speeches, parallel sessions and a panel discussion, networking meetings and an exhibition space are central to networking.

Unused data

One thing became clear at the event: precision medicine and AI can not only make healthcare more personalized, but also more effective, with fewer side effects and more efficient. The potential is huge, emphasized Moritz Hartmann, Head of Roche Information

Solutions, with a simple figure: “97 percent of the data generated in hospitals has not yet been used.” And as patients are increasingly being discharged from hospital earlier, it is all the more important to record the entire patient journey, for example with appropriate wearables for monitoring at home. This will make it possible to use AI to make medicine more preventive and predictive.

Professor Fabian Prasser, Head of Medical Informatics at Charité Universitätsmedizin Berlin, reported on the challenges hospitals face when dealing with data. He presented the data platforms there and emphasized that it is about more than just technical solutions. Among other things, it is also important to support researchers in handling data and to involve patients more in the projects. Often, the corresponding infrastructure - or the resources to do so - are still lacking in hospitals.

Accelerating innovation

Dr. Christian Rommel, Head of Research and Development at Bayer Pharmaceuticals, emphasized that there is a great need for innovation. At seven to twelve years, it takes too long for new treatments to reach patients, he said. In addition, hundreds of proteins that cause diseases are known today: “But there are only drug treatments for around ten percent of them.”

An important building block on the path to precision medicine was the focus of the presentation by Carolin Lerchenmüller, Professor of Gender Medicine at the University of Zurich: Biological sex and socio-cultural gender is still not given enough consideration in the search for the causes of diseases. Accordingly, there is often still a lack of gender-specific treatment guidelines. AI could help to improve the situation.

The diversity of the paths that universities and industry are taking with innovations was demonstrated in the parallel sessions of the conference. Start-ups that want to use menstrual blood (MenstruAI project) or sweat (Age Resist) to improve diagnostics were presented there, for example. Others are developing technologies to better treat brain strokes. If genetics are taken into account (Prima Genetics), this allows the effectiveness of a drug to be predicted before it is taken. Another start-up (Optohive) wants to record cerebral blood flow using a wearable measuring cap. Among other things, this could be used to investigate whether a therapy such as transcranial magnetic stimulation is helpful after a stroke.

What investors want

With so much potential for innovation, Vincent Irrling, Managing Director of Healthtechpark Zürich-Schlieren, is clear: HealthTech is a constantly growing sector with good prospects. AI is an “enabler” and will accelerate the development of medicines and open up new markets, among other things. However, there are numerous challenges for research and start-ups to overcome, such as integrating data, ensuring data quality, protecting privacy and dealing with different regulatory requirements around the world.

Another key question is how to attract investors as a young company. Jacqueline Ruedin Rüsch, founder of the venture capital company Privilège Ventures, had a clear message on this: “The team is the most important thing, as start-ups often fail precisely because of this.”

For investors, it is crucial that scientific and business expertise complement each other in a team. She also sees time and again that company founders are not clear enough about their project, the market for it and do not think enough about which investors are suitable for their business. “The collaboration between founders and investors is comparable to a marriage, but lasts longer than the average marriage,” said Ruedin Rüsch. Mutual trust and transparency are therefore key.

Serving the people

During the panel discussion with moderator and physician Anna Erat, it was emphasized once again that the appropriate financial incentives and resources are also necessary for digitalization in medicine to move forward. Technological systems that also meet data protection requirements are available today. It is important to base the development of precision medicine and the use of AI on the needs of patients. David U. Haerry, representative of patient organizations, put it in a nutshell: “Technology should serve us, not dominate us.”

In their closing remarks, Prof. Beatrice Beck Schimmer, Director of University Medicine Zurich (a network consisting of the six institutions: University of Zurich, University Hospital Zurich, ETH Zurich, Balgrist University Hospital, University Children's Hospital Zurich and the Psychiatric University Hospital Zurich), and Prof. Thomas Ott from the Zurich University of Applied Sciences ZHAW emphasized the importance of collaboration between universities and industry. According to Ott, artificial intelligence is a more dynamic field than medicine. Accordingly, it takes time to create a common understanding: “We have to keep bringing all perspectives together.” Events such as the Life Science Zurich Impact Conference are very valuable for developing shared visions and strategies, said Beck Schimmer.

4th Life Science Zurich Impact Conference

The conference took place on May 26 2025 at Technopark Zurich. It was organized by the Life Science Zurich Business Network, the Canton of Zurich (Office for Economy) and the Bio-Technopark Schlieren-Zurich.
Partners of the conference were Life Science Zurich, the City of Zurich, the University of Zurich, ZHAW and Innosuisse. The conference was supported by the following sponsors: CSEM, Roche, Super Computing Systems, University Hospital Zurich, USZ Health Innovation Hub.

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