

Media release

Innosuisse supports development of algorithms for early detection and prognosis of cardiac arrhythmias

The Swiss eHealth startup evismo and the iHomeLab of the Lucerne University of Applied Sciences and Arts are jointly developing algorithms to detect and predict cardiac arrhythmias faster. Early diagnosis and treatment of a cardiac arrhythmia can prevent a stroke. A focus will be placed on gender differences in arrhythmias. Innosuisse is supporting this visionary project with a total budget of 1.15 million Swiss francs.

Zurich, May 31, 2022 – Atrial fibrillation (afib) is the most common cardiac arrhythmia. The heart atria no longer beat regularly, but too quickly, irregularly and uncoordinatedly. This is often not an acute danger. If left untreated, however, atrial fibrillation can in the worst case result in a stroke. In Switzerland, around one percent of the population, or about 100,000 people, are affected by afib. Among people over 75, this figure is as high as ten percent. The sooner a cardiac arrhythmia is detected, the sooner treatment can be started to correct the problem and prevent a stroke. evismo and the iHomeLab of the Lucerne University of Applied Sciences and Arts are now starting a project with the support of Innosuisse, in which algorithms are being developed that will detect and even predict cardiac arrhythmias in patients earlier.

evismo has been offering long-term ECG diagnostics for three years now

The Swiss eHealth startup evismo has focused on the diagnosis of cardiac arrhythmias for three years. With CardioFlex, the startup offers digital long-term ECG diagnostics as a service to Swiss GPs, cardiologists, and stroke centers. evismo has already recorded over 1,000,000 hours of ECG data from 6,000 patients with CardioFlex. Thanks to the structuring of this digital ECG data, new possibilities for long-term ECG diagnostics are emerging.

Alexander Panos, co-founder of evismo: *"With our long-term ECG service, we don't simply want to digitize today's ECG diagnostics, but rather integrate human and artificial intelligence to enable early detection or even preventive diagnostics of cardiac arrhythmias in the future."*

A central component of the project is the readout of gender differences in cardiac arrhythmias to close the historically grown data gaps and to contribute to gender-appropriate diagnostics.

HSLU contributes expertise in artificial intelligence

The iHomeLab of the Lucerne University of Applied Sciences and Arts (HSLU) complements



evismo in the Innosuisse project. evismo has broad experience in MedTech and ECG analytics. iHomeLab brings its expertise in Machine Learning and versatile data analysis methods, such as Deep Learning, to the project. Thanks to the Innosuisse project, evismo and the iHomeLab will jointly develop systems and algorithms over the next two years that can detect atrial fibrillation, palpitations or other cardiac arrhythmia at an early stage in a patient's ECG data. Prof. Dr. Patric Eberle, head of the Active and Assisted Living research group at iHomeLab: *"We are pleased to be able to make a substantial contribution to this visionary project with our expertise in artificial intelligence and are convinced that we can play a pioneering role in ECG diagnostics worldwide."*

About [evismo](#)

evismo is driven by the conviction that every patient deserves a diagnosis. The goal is to provide a diagnostic solution that captures the previously unmeasured. To achieve this, evismo brings medical care directly into the everyday lives of patients, in a cost-efficient and patient-centric way. evismo rethinks existing, outdated, complex systems and structures and intelligently integrates the actors. This optimizes diagnostics, prevention, therapy and treatment outcomes.

About [iHomeLab](#)

Under the direction of Prof. Dr. Andrew Paice, the iHomeLab team at HSLU - Engineering & Architecture is researching how intelligent buildings and artificial intelligence can reduce energy consumption or enable older people to live longer in their own homes. The results of the research projects are presented in the iHomeLab Visitorcenter on the Horw campus and explained in an understandable way.

About [Innosuisse](#)

Innosuisse is the Swiss Agency for Innovation Promotion. Innosuisse's mission is to promote science-based innovation in the interest of business and society. The core of the funding is the support of innovation projects: Innovative organizations such as companies and start-ups develop new services and products together with universities and research institutions.

Media contact

Daniel Scherrer
Communication evismo
+41 78 789 23 14
dscherrer@evismo.com