



Press Conference, Vienna, Presseclub Concordia, June 3rd 2019

Worldwide innovation in medical technology.

First feeling leg prosthesis ready for market launch.

Sustainable therapy for phantom pain.

Prof. DI Dr. Hubert Egger has achieved another sensation: Following the development of the world's first mind-controlled arm prosthesis, the market launch of the "feeling" leg prosthesis is now approaching. The product was realized by the Austrian start-up Saphenus Medical Technology, with co-founder Toni Innauer. About 50 percent of wearers of prostheses suffer from phantom pain. Often, only severe pain killers (e.g., opiates, morphine) can provide temporary relief. Long-term sustainable therapies have so far not prevailed.

Worldwide interest - medical device developed.

As Prof. Hubert Egger reported on the feeling of the leg prosthesis four years ago - a first functional model was presented - this message went around the world. At that time, a test user was shown with the first functional model that targets surgically redirected and reactivated sensory nerves. After four years of development work, the Austrian company Saphenus has adopted the bionic concept and developed the prosthesis add-on "Suralis" ready for market: Any existing prosthesis can be adapted (regardless of manufacturer). Olympic champion Mag. Toni Innauer - Saphenus co-founder of the first hour - is pleased that the market launch can be realized in a few weeks: "The bionic approach improves the quality of life enormously," said Innauer.

Medical technology product developed in cooperation with medical team to production readiness.

After the first clinical case study run by Prof. Dr. Hubert Egger and OA Dr. med. Eva Maria Baur and her team from the University Hospital of Innsbruck, the medical team expanded with the inclusion of Doz. Alexander Gardetto from the South Tyrolean Brixsana Clinic. The Tyrolean team of physicians has been pioneering sensory nerve redirection for the new medical device for the first time ever in a human undergoing a femoral amputation: "Consideration of the technical progress in prosthetics is important at every stage of the prosthetic restoration and especially in surgical amputations. The goal is that those affected benefit quickly and that chronic pain is unlikely to occur at any time in life," says Alexander Gardetto.



Phantom pain - a previously unsolved problem

Many people with amputations suffer from very specific pain, so-called phantom pain: As the brain tries to retrieve information from the limb, which no longer exists, this pain intensifies. To date, no treatment has prevailed for the sustainable treatment of phantom pain. With the invention of the feeling prosthesis, the brain receives sensory information again. Hubert Egger has teamed up with a group of doctors to develop a method whereby amputees actually are able to feel their lost feet again. Eva-Maria Baur (University Hospital Innsbruck and Garmisch-Partenkirchen, Germany) and Alexander Gardetto in the South Tyrolean Brixiana Clinic were involved in years of clinical work demonstrating the success of the TSR methodology.

Technical innovation: Add-on Suralis enables feeling in leg prostheses and increases safety when walking.

The prosthesis Add-on Suralis is a patented feedback system that can be adapted to any existing prosthesis (regardless of manufacturer). It was designed by the renowned industrial designer and Professor of the Bauhaus University Weimar, Andreas Mühlenberend. The prosthesis with the accessory Suralis is turned into a feeling leg prosthesis.

Suralis consists of:

- A sensor shoe that detects the rolling movement while walking.
- A radio transmitted transfer of -- the rolling movement to the amputation stump.
- The actuator unit passes the information of the rolling movement to the nerves of the skin area that has been surgically prepared to receive the rolling information. This non-invasive transfer of information is perceived by the brain as information of the missing foot.
 - The result: The phantom pain recedes or can be completely eliminated.
 - Another advantage: authentic feeling allows the detection of changes in the surface structure. This improves gait stability and makes walking safer.
- The prosthesis Add-on Suralis is adapted by a certified orthopaedic technician and can also be used in combination with another replacement prosthesis.

Market launch in Austria, Southern Germany and South Tyrol

From now on, prostheses wearers can contact saphenus.com and obtain more information. Each treatment is accompanied by a detailed medical examination and orthopaedic consultation at several locations.

Registration via the website saphenus.com:

- University Hospital Innsbruck
- Private Clinic Brixiana (Brixen / South Tyrol)
- Practice Group Garmisch-Partenkirchen



The next steps - Expansion of cooperation and internationalization

"Not only do we want to be present in the D-A-CH area, but cooperation with clinics and orthopaedic technicians in other European countries is the next step. Rainer Schultheis, Managing Director of Saphenus Medical Technology, emphasizes that we want to further intensify our cooperation with clinics and scientific institutions and are looking for manufacturers of prostheses as partners.

"Another milestone for the expansion is the FDA approval (Food and Drug Administration, USA) to be present in the North American and Australian markets" so Schultheis.

Further information: Mag. Rainer Schultheis, Managing Director
Saphenus Medical Technology GmbH,
saphenus.com
press@saphenus.com
Tel.: +43 1 743 371 6

About Saphenus Medical Technology GmbH:

The Austrian company Saphenus was founded in 2016 and is a medical technology company focused on innovative technologies in the field of sensors and actuators. Saphenus strives to work with national and international scientific institutions and research institutions to drive further innovation in medical technology. The intelligent sensor systems for the Suralis product were co-developed by IEE, one of the world's leading automotive suppliers. Saphenus is a member of the Economy of the Common Good (www.ecogood.org), and the business is based on stakeholder-driven sustainable operations. The development of Suralis (a prosthesis add-on) was funded by Accent, AWS, FFG and the EU funding instrument "Horizon 2020". More information on saphenus.com.