

## Swiss national science foundation supports big data project on low back pain

Volketswil, 18<sup>th</sup> of November 2016

**The Swiss National Science Foundation (SNF) recently announced the awarded projects of the new National Research Program on Big Data. Hocoma is proud to be partner in the project on personalized management of low back pain. The project led by Prof. Dr. Walter Karlen, ETH Zurich, brings together experts from the data science and the clinical world, as well as from the med-tech industry.**

Low back pain affects almost every citizen in Switzerland and around the world at least once during their life. It is a complex illness where the causes are not fully understood. Costly surgery should be avoided, but the diversity of the illness is a challenge for doctors to find effective treatments. A key step forward to better treatment solutions is to monitor a large number of individuals' behaviour during entire low back pain episodes. Digital technologies including smartphones, wearable sensors and the internet make this possible.

The goal of the project is to use novel mobile health (mHealth) tools for identifying changes in low back pain of thousands of participating citizens. This goes along with the development of an appealing mHealth app to enable participants to assess and document their low back pain. Collecting important data from a large group of volunteers, so called citizen scientists, allows the team to create information regarding how frequent low back pain happens and any patterns that might exist on an individual level. New experimental strategies will then be developed to test different methods that can prevent or reduce low back pain.

This is the first SNF project on big data in health care that Hocoma participates in. "We consider this project an important step for improving the situation of individuals with low back pain and appreciate the support from SNF for this project as well as for the whole big data program of the National Research Program." says Dr. Lars Lünenburger, who is Hocoma's representative within the project. "The collaboration of Hocoma with Swiss universities and clinics was and is an important factor for us." adds Dr. Gery Colombo, CEO of Hocoma. "We are looking forward to the collaboration with Prof. Walter Karlen and our partners at Balgrist - namely Dr. Walter O Frey - and the University Hospital Zurich – namely Dr. Ruud Knols and Dr. Jaap Swanenburg."

Hocoma is not a newcomer regarding lower back pain treatment. Their sensor-based therapy solution Valedo that turns back pain therapy into an engaging game challenge won multiple consumer awards in the last two years.

References:

SNF: [www.snf.ch](http://www.snf.ch)

List of Awardees: <http://www.nfp75.ch/SiteCollectionDocuments/Bewilligte%20Gesuche.pdf>

Valedo Therapy: [www.valedotherapy.com](http://www.valedotherapy.com)

**Media Contact**

Mike Fuhrmann, Chief Creative Officer, Hocoma AG, Industriestrasse 4, CH-8604 Volketswil  
Email: [media@hocoma.com](mailto:media@hocoma.com), Tel: +41 43 444 23 65, Fax: +41 43 444 22 01,

[www.hocoma.com](http://www.hocoma.com)

**Participant Contact**

If you are interested in participating and learning more about the project, please contact

[rueckenschmerzen@ethz.ch](mailto:rueckenschmerzen@ethz.ch).

*[email address to be confirmed]*



Dr. Gery Colombo, CEO Hocoma



Dr. Lars Lünenburger

**Press images**

[www.hocoma.com/de/mediencenter/pressebilder/](http://www.hocoma.com/de/mediencenter/pressebilder/)

**About Hocoma**

A successful therapy begins in patients' heads. In the firm belief that – step by step – they can reach their goals and regain quality of life.

This is what we work for at the Swiss medtech company Hocoma. With technologies and ideas that look at functional movement therapy from a completely different angle. Because they enable independent exercises and create maximum motivation. Because they challenge people to take courage and support their hopes with personal achievements.

We are committed to creating the ideal therapy. Our awarded robotic and sensor-based devices offer solutions for intensive gait therapy (Lokomat®, Andago®), functional therapy of the upper extremities (Armeo®), robotic mobilization and functional electrical stimulation in early rehabilitation



(Erigo®) as well as functional movement therapy within low back pain treatment (Valedo® Therapy Concept) at home and at the clinic. They are the result of intensive research, consistent development and continuous exchange with patients, therapists and partners in research and science.

Those who see to break new grounds need to stay open to exceptional ideas. They have the potential of being exceptionally effective. This guiding principle by Hocoma founder and CEO Dr. Gery Colombo has accompanied us since our start in 2000 and is still lived and implemented by our dedicated employees around the world. At the headquarters in Volketswil near Zurich (Switzerland) and the subsidiaries in the USA, Singapore and Slovenia we achieved a turnover of approximately 30 million CHF in 2015.