ALGOA PROGRESS

Personalized treatment planning of osteoarthritis

Osteoarthritis is the most common disease of the musculoskeletal system. It affects approximately 100 million people living in the EU and the US. In 2040, the number of osteoarthritic patients is estimated to increase by 70%. The total societal costs of osteoarthritis are enormous. It has been estimated that annual costs of osteoarthritis are 1-2.5 % of the GDP in western countries. The key for reducing these costs would be early detection of the disease to ensure the most beneficial effect of the available treatment options. However, the available clinical methods are suitable only for diagnosis of the current state of the knee-joint, resulting in a situation where only symptoms are being treated. Therefore, osteoarthritis usually develops inevitably, and the treatment is often started too late. ALGOA PROGRESS offers a novel computational model that allows a quantitative personalized prediction of the onset and development of knee-osteoarthritis. Moreover, our novel solution provides objective data in the clinician's decision-making process, which allows personalized treatment planning aiming to prevent or slow down the disease progression.

Joona Kemppainen, M.Sc.

Project manager and Business Developer

Joona is a business developer with a global mindset. Joona has been studying the internationalization of Finnish-based startups in the University of Eastern Finland. Additionally, Joona has worked with various tasks in the Finnish public health care sector, such as purchasing and accounting.

Mikael Turunen, Ph.D.

Technology champion

Mikael is an expert in musculoskeletal research, and a docent in Medical Physics, especially tissue characterization. He has a strong background in development of scientific analysis methods for various applications, a necessity also in ALGOA PROGRESS. After Academy Post-doc fellowship he has actively collaborated in numerous national and international scientific projects.

SPARK VALUE: We are excited to join the global SPARK community. We believe that the key for a successful commercialization and market access lays in the close collaboration with experienced medical professionals and innovation experts. SPARK program offers us the guidance and networks to support our endeavors. With the help and knowledge of our mentors and other collaborators, we expect to rationalize our business model and achieve our objective of a successful spin-off company.