PROTEABS
POC diagnostics of picornaviruses

Human picornaviruses (particularly rhinoviruses) are the most common human pathogens. They are significant disease agents in infants, elderly, immunocompromised and asthmatic individuals, and are often confused with bacterial infections, which is a risk factor for developing global antimicrobial resistance. Currently, picornavirus diagnostics is based on RT-qPCR amplification. Consequently, there are no diagnostic solutions in the market, which would allow rapid, cheap and easy-to-use virus detection. Our goal is to develop antibody and antiviral based assays for the detection of picornavirus infection. We will target conserved viral proteins and proteins, which accommodate antiviral compounds. Our aim is to develop novel assay tools, which will allow us to identify unprecedented number of rhinovirus types in a single experiment. The tools will be applicable to different diagnostic platforms or in-house developed assay system.

Dr. Petri Susi, PhD,

Docent in molecular virology

Petri has more than 20 years of experience in virology and biotechnology including *in vitro* diagnostics. He has specialized in molecular virology and picornavirus research, and has participated and supervised numerous picornavirus-related projects. He has established two start-ups and has work experience in diagnostic companies.

Eero Hietanen, MSc, PhD student

Expert in bioinformatics and molecular biology.

Eero is developing sophisticated workflows for genome sequencing and easy-to-use sequence analysis with special emphasis on picornavirus detection.

SPARK VALUE: We expect the SPARK program to be fruitful platform to gain feedback for our plan and to guide us towards optimal grounds when we aim to establish our assay tools and system. We hope to expand our networks and identify partners which are central for our project progress towards commercialization.