



# SCellOmics

## Novel single cell omics methods

Single cell resolution is the latest revolution in genomics and transcriptomics, and will be the future "microscope" in personalized diagnostics and therapies. It enables high throughput characterization of cell types and responses, cell differentiation, clonal evolution and somatic mutations. The current mainstream techniques are based on cell capture with droplet or microwell based devices combined to RNA/DNA tagging with oligo barcoded beads. In our SPARK project SCellOmics we develop novel innovative cell capture, barcoding and analysis platforms both for suspension cells and spatial *in situ* omics directly from tissue sections.



### **Päivi Saavalainen, PhD, docent**

Group leader, Immunomics research group Head, Single cell & Microfluidics core facility Faculty of Medicine, University of Helsinki

Päivi has a long track record in immunogenetics and pathogenesis of chronic gut inflammations. Her specific interest is in clono- and phenotyping of disease driving antigen specific T cells in autoimmunities. Her multidisciplinary team develops novel single cell methods for these tasks, and works also closely with Finnish companies and technical universities in microfluidics, microfabrication, imaging and bioinformatics related projects.

**SPARK VALUE: We hope that SPARK training and mentoring would guide us towards the best strategy to commercialize our inventions, and network us efficiently with the optimal partners and investors.**