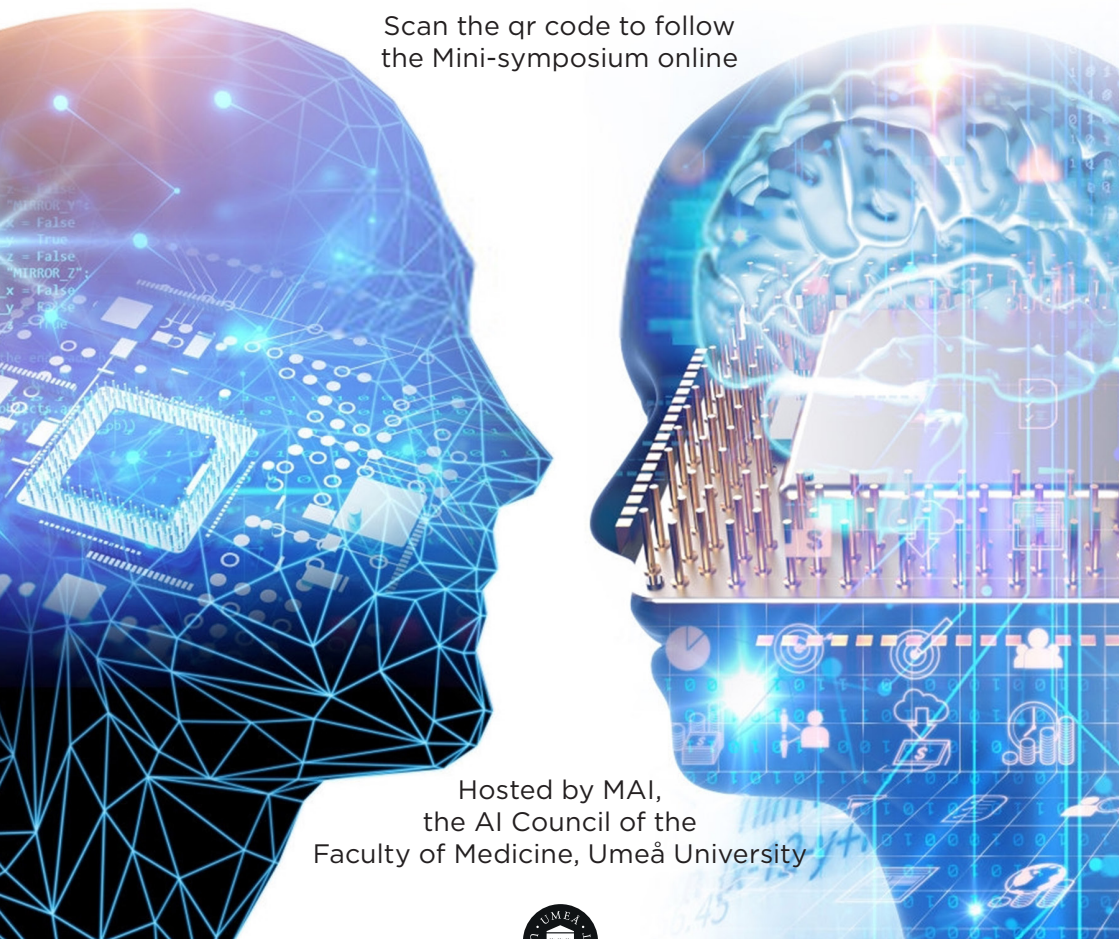# AI IN PRECISION MEDICINE
– latest development and future directions

Mini-Symposium May 29th, 2023
10.00–14.30
Kempesalen, KBC-huset

Scan the qr code to follow
the Mini-symposium online

Hosted by MAI,
the AI Council of the
Faculty of Medicine, Umeå University

UMEÅ UNIVERSITY

10.00–10.10 Welcome remarks

Jenny Persson, Chair of AI Council, Faculty of Medicine, Umeå University

10.10–10.25
Gathering clinically valuable Information from quantitative transcriptomic data in tumours

Björn Rotter, Genxpro, Frankfurt, Germany

PhD, head of Partner of EU-REVERT consortium. In charge of application of RNA-seq, WGS, Microbiome, SARS-Cov-2 array and building of large scales of bioinformatics-based data for AI. AI-precision medicine with focus on innovation in biomarker discovery and therapeutic drugs in combinational treatment regiments.

10.25–10.40
Pilot for national Swedish AI-validation platform for digital pathology

Kevin Sandeman, Clinical genetics, pathology and molecular diagnostics, Malmö, Medical Services (affiliated to Skånes University Hospital (Lund and Malmö), Region Skåne.

MD, head of section for Clinical Pathology in Malmö. As a member of the national workgroup for digital pathology, he is actively contributing to the development and implementation of standardized protocols and best practices for the use of digital pathology in cancer diagnostics across the country. He has made it a priority to establish a national network and digital health infrastructure that enables safe and effective implementation of AI applications in cancer diagnosis.

10.40–10.55
Increase accuracy and effectivity for digital diagnostics by using AI tools

Felicia-Elena Marginean, Department of Translational Medicine, Lund University and Clinical genetics, pathology and molecular diagnostics, Malmö, Medical Services (affiliated to Skånes University Hospital (Lund and Malmö), Region Skåne.

MD and PhD, she received her PhD degree in the field of AI in pathology. Her research is focused on AI application in digital pathology for diagnostics

and biomarkers discovery in prostate cancer. She has a large network within the international community in breast cancer pathology.

10.55–11.10
AIM North – a Competence Center for Applied AI in Clinical Research and Development

Nina Sundström, Center for information technology and Biomedical Engineering, Umeå University Hospital

PhD, head of the AI competence center AIM North (AI for Medicine in Northern Sweden). She is also a member of the Medical Faculty AI council. Affiliated as coordinator in the focus area AI in medicine and health at Center for Transdisciplinary AI (TAIGA), Umeå University. AIM North was founded in 2022 to bridge the gap between clinical researchers and the fast development of new methods in AI/machine learning within the technical fields. Support is offered in e.g., planning of data collection, choice of analysis methods and application of machine learning methods on already collected data. All with the aim of taking full advantage of the data and accelerating the development of new clinical methods applicable within medicine and health.

11.30–12.30 Lunch

12.30–13.15
Artificial Intelligence for Health-care and Precision Medicine

Roxana Daneshjou, Department of Dermatology, Stanford University

MD, PhD. Clinical Scholar at Stanford University, she was recognized as a Goldwater Scholar for her research. She completed her MD/PhD at Stanford. During this time, she was a Howard Hughes Medical Institute Medical Scholar and a Paul and Daisy Soros Fellowship for New Americans Fellow. She is conducting artificial intelligence research in Biomedical Data Science. Her research interests are in developing diverse datasets and fair algorithms for applications in precision medicine.

13.15–14.30
3D Segmentation for CT Scan Images

Fehmi Ben Abdesslem, Department of Computer Science of Research Institute of Sweden (RISE) and Karolinska Institute, Stockholm.

PhD. Senior Research Scientist. He spent several years as a Postdoctoral Fellow at the University of St Andrews in Scotland, and at the University of Cambridge in England. He was then awarded an Alain Bensoussan Fellowship by the European Commission to pursue AI research in Sweden. He was then offered a permanent position at RISE. He is now also affiliated with Karolinska Institute in Stockholm and UCL in London. He is also employed by Region Stockholm and works closely with Karolinska hospitals in Stockholm. His research includes bringing different AI machine learning methods to the medical field, such as genomics, psychiatry, and cancer research.