Thursday, August 24th, 2023

8:30–9.00  Registration
9:00–9:15  OPENING OF THE CONFERENCE
Welcome by Toomas Asser, Rector, University of Tartu, Estonia
9:15–10:00  KEYNOTE Virginijus Šikšnys
Distinguished professor at Vilnius University, chief scientist/head of the department at the Institute of Biotechnology of Vilnius University and a chairman of the board of Life Science Center.
New tools for genome editing: from CRISPR-Cas to transposon-associated proteins.
Coffee break 10:00–10:30

SESSION I  GENOMICS OF MONOGENIC DISORDERS
Moderator Sander Pajusalu
10:30–11:00  Monkol Lek
Assistant professor, Department of Genetics, Yale School of Medicine, USA
High throughput functional assays to improve interpretation of rare variants discovered in neuromuscular disease genes.
11:00–11:30  Angela Lek
VP of research, Muscular Dystrophy Association, USA
Promises and challenges of translating genetic therapies for neuromuscular disorders.
11:30–12:00  Bjarne Udd
Professor, Tampere Neuromuscular Center and Folkhålsan Research Center Helsinki, Finland
Multisystem proteinopathies MSPs – neurodegeneration, +/- muscle, +/- bone.
Lunch break 12:00–13:30

SESSION II  PHARMACOGENOMICS
Moderator Lili Milani
13:30–14:00  Mikko Niemi
Professor, MD, Department of Clinical Pharmacology, University of Helsinki, Finland
Pharmacogenetics of lipid-lowering therapy.
14:00–14:30  Espen Molden
Adjunct Professor, Department of Pharmacy, University of Oslo, Norway
The power of therapeutic drug monitoring data in pharmacogenomic studies.
14:30–15:00  Jesse J. Swen
Professor, PharmD PhD, Netherlands
Implementing Pharmacogenomic panel testing in Europe: Results from the U-PGx PREPARE study.
Coffee break 15:00–15:30

SESSION III  PERSONALIZED MEDICINE
Moderator Pärt Peterson
15:30–16:00  Andrea Ganna
FIMM-EMBL group leader, Institute for Molecular Medicine, University of Helsinki, Finland
Can genetic associations for disease onset be used to predict disease prognosis?
16:00–16:30  Kadi Lõhmussaar  
Postdoctoral fellow at Prof. Kim Jensen lab, The Novo Nordisk Foundation Center for Stem Cell Medicine (reNEW), Copenhagen, Denmark  
*Adult stem cell-derived 3D organoids in modelling tissues in health and disease.*

16:30–16:50  Tiffany Morris  
Staff Market Development Manager, Illumina, United Kingdom  
*Latest Advancements for Illumina WGS.*

16:50–19:00  Poster session and opportunity to visit the Estonian National Museum exhibition  (Tickets available on site and on participant’s own responsibility)

19:00  Gala dinner at Estonian National Museum

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**Friday, August 25th, 2023**

**SESSION IV**  
**MICROBIOME**  
**Moderator Elin Org**

9:00–9:30  Karsten Kristiansen  
Professor, Laboratory of Genomics and Molecular Biomedicine, Department of Biology, University of Copenhagen, Denmark, BGI-Research, Shenzhen, China, and Institute of Metagenomics, Qingdao-Europe Advanced Institute for Life Sciences, Qingdao, China  
*The microbiota – Everything Everywhere All at Once.*

9:30–10:00  Susanne Brix Pedersen  
Professor, Department of Biotechnology and Biomedicine, Technical University of Denmark, Denmark  
*Early life host-microbiota interactions and later disease development.*

10:00–10:30  Anne Salonen  
Group leader, Human Microbiome Research Program, University of Helsinki, Finland  
*Mother-infant microbiome interface in early development and reproduction.*  

**Coffee break 10:30–11:00**

**SESSION V**  
**SINGLE CELL OMICS**  
**Moderator Kaur Alasoo**

11:00–11:30  Rickard Sandberg  
Professor, Department of Cell and Molecular Biology, Karolinska Institutet, Sweden  
*Novel strategies to study transcriptional dynamics and alternative splicing in single cells.*

11:30–12:00  Monique van der Wijst  
Assistant professor, University Medical Center Groningen, University of Groningen, Department of Genetics, Groningen, the Netherlands  
*Single-cell consortium for federated PBMC data pipeline for cell-type-specific eQTL mapping and downstream analyses.*

12:00–12:30  Emma Davenport  
Group leader, Wellcome Sanger Institute, United Kingdom  
*Using functional genomics to understand disease heterogeneity.*  

**Lunch Break 12:30–14:00**
SESSION VI  MENTAL HEALTH
Moderator Kelli Lehto

14:00–14:30  Eivind Ystrøm
Professor, University of Oslo, Norway
Genes as environments – intergenerational transmission of mental health
in the Norwegian Mother, Father and Child Cohort study.

14:30–15:00  Alfonso Buil Demur
Research leader, Institute of Biological Psychiatry, Mental Health Services,
Copenhagen University Hospital. Associate professor, Lundbeck Foundation
Center for GeoGenetics, GLOBE Institute, University of Copenhagen, Denmark
Leveraging national registers to study psychiatric genetics in Denmark.

15:00–15:30  Sara Hägg
Associate Professor, Department of Medical Epidemiology and Biostatistics,
Karolinska Institutet, Sweden
Human genetic studies of aging and their implications for precision health.
Coffee break 15:30–16:00

SESSION VII  POPULATION GENETICS
Moderator Mait Metspalu

16:00–16:30  Karoline Kuchenbäcker
Professor, Division of Psychiatry, University College London; UCL Genetics
Institute, Genes Evolution and Environment, University College London;
Genomics England, United Kingdom
Genomic medicine for ancestrally diverse populations.

16:30–17:00  Ida Moltke
Associate professor, University of Copenhagen, Denmark
An example of how valuable disease studies in historically small and isolated
populations can be.

17:00–17:15  Closing remarks

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