NORDIC SOCIETY

OF HUMAN GENETICS AND PRECISION MEDICINE

CONFERENCE PROGRAMME 2022

"PRECISION MEDICINE RESEARCH AND IMPLEMENTATION: REBOOTING IN THE NORDICS POST-COVID"

3-4 NOVEMBER · COPENHAGEN · DENMARK

NSHG-PM

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Contents

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Søren Brunak,
Novo Nordisk Foundation Center for Protein Research, University of Copenhagen

Anders Børglum,
Department of Biomedicine, Aarhus University

Sisse Rye Ostrowski,
Rigshospitalet, University of Copenhagen

Thomas Werge,
RHP-Institute of Biological Psychiatry & University of Copenhagen

Welcome to NSHG-PM 2022 in Copenhagen!

We are glad you have joined us in Denmark for “Precision Medicine Research and Implementation: Rebooting in the Nordics post-COVID”. Our organizing committee has gathered more than 50 top-notch talks and 40 exciting posters for you!

The Nordic Society of Human Genetics and Precision Medicine (NSHG-PM) represents a rapidly growing movement of scientists, clinicians, and other stakeholders who are demonstrating the value of combining data from genomics and other -omics research with a variety of health and other registry data, with the goal of more precision in disease prevention and treatment. In order to achieve this, we need to build bridges from research to public health and clinical implementation of precision medicine.

The talks, panels, and posters over these two days will highlight the experience of successful Nordic collaboration on precision medicine research and infrastructure, especially the collaborative spirit during the pandemic. NSHG-PM 2022 is another step toward an interconnected Nordic research community and framework to provide the data and discoveries that will fuel future Nordic public health, clinical care, and innovation.

Enjoy this unique opportunity to hear from and network with your fellow Nordic human geneticists, big data scientists, biobankers, epidemiologists, hospital clinicians, biomedical industry researchers and executives, and more!

Programme Committee

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General Information

Contact
NSHG-PM Secretariat
CAP Partner
Nordre Fasanvej 113, 2nd floor
2000 Frederiksberg C
Denmark
T: +45 70 20 03 05
info@cap-partner.eu
www.nshg-pm.org

Conference Venue
Kulturkajen Docken
Færgehavnsvej 35, 2150 København
Copenhagen, Denmark

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Abstract Book
An electronic abstract book is available online at www.nshg-pm2022.org/abstracts

Certificates of Attendance
Certificates of attendance will be available on November 4th at the registration desk. The certificate will also be available as self-print after the conference. A link will be provided by e-mail to all participants.

Lunch and Coffee
Lunch and coffee are available in the exhibition area. See programme for exact time of breaks.

Speaker Information
Please bring your presentation to the conference area before your session begins. We recommend you upload your presentation in the break right before your session. A technician will be present to assist in the upload if necessary. Please bring your presentation on a USB. Use of personal laptops is not allowed. Unless otherwise agreed all presentations will be deleted after the conference to make sure no copyright issues may arise.

Smoking Policy
Smoking is prohibited inside the venue. There are dedicated outdoor smoking areas available outside.

Posters
Posters are to be mounted on Thursday November 3rd at 08:00 – 08:45 and must be removed by the end of the conference on Friday November 4th, 17:00. The posters will be attached to the poster boards with adhesive provided by the conference staff.

Poster Reception
Join your colleagues for drinks and canapés while experiencing this year's amazing poster presentations. Please note that the event is not a dinner. The event is included in the registration fee, no pre-registration necessary.

Wifi
Use the network Docken.
No password is needed.

NSGH-PM 2022 Programme

Precision Medicine Research and Implementation:
Rebooting in the Nordics post-COVID

Thursday, 3 November 2022

08.00-08.45	**Registration & coffee**
08.45-09.00	**Welcome from the Danish Organizers** Søren Brunak, University of Copenhagen ❖ Anders Børglum, Aarhus University Sisse Ostrowski, Rigshospitalet ❖ Thomas Werge, Institute of Biological Psychiatry
09.00-12.30	**Session 1: National perspectives**
09.00-09.30	**Denmark** - Chair: Søren Brunak, University of Copenhagen **Søren Brunak, University of Copenhagen, Denmark:** *Denmark overview* **Jonas Ghouse, University of Copenhagen, Denmark:** *Use of genetic profiling of a large biobank combined with prescription patterns to discover genetic loci associated with adverse drug reactions* **Palle Duun Rohde, Aalborg University, Denmark:** *Prediction of high-risk plaques in coronary heart disease using genetics and targeted proteomics*
09.30-10.00	**Estonia** - Chair: Lili Milani, Estonian Genome Center **Lili Milani, Estonian Genome Center:** *Estonia overview* **Erik Abner, University of Tartu, Estonia:** *The POMC gene and obesity in the Estonian Biobank* **Teele Palumaa, University of Tartu, Estonia:** *Association between chronotype and eye growth*
10.00-10.30	**Finland** - Chair: Andrea Ganna, Institute for Molecular Medicine Finland FIMM **Andrea Ganna, Institute for Molecular Medicine Finland FIMM:** *Finland overview and FinRegistry: Nationwide Registry Data for High-throughput Epidemiology and Machine Learning* **Tuomo Kiiskinen, Institute for Molecular Medicine Finland FIMM:** *Genetic predictors of lifelong medication use patterns in cardiometabolic diseases* **Tuomo Hartonen, Institute for Molecular Medicine Finland FIMM:** *Health, socioeconomic and genetic predictors of COVID-19 vaccination uptake: a nationwide machine-learning study*
10.30-11.00	**BREAK & EXHIBITION**
11.00-11.30	**Iceland** - Chair: Kári Stefánsson, deCODE genetics **Kári Stefánsson, deCODE genetics:** *Iceland overview* **Hildur Ægisdóttur, deCODE genetics:** *Role of common genetic variants in syncope predisposition* **Thjódbjörg Eiríksdóttir, deCODE genetics:** *Proteomics predicting mortality*
11.30-12.00	**Norway** - Chair: Siri Håberg, Norwegian Institute of Public Health **Per Magnus, Norwegian Institute of Public Health, Norway:** *Using Norwegian data to advance personalized medicine* **Marc Vaudel, University of Bergen, Norway:** *Resolving the mode of transmission of anthropometric traits at birth and during early childhood*

12.00-12.30	**Sweden** - Chair: Ingrid Kockum, Karolinska Institutet **Ingrid Kockum, Karolinska Institutet, Sweden:** *Sweden overview* **Åsa Johansson, Uppsala University, Sweden:** *Can whole genome sequencing help explaining the missing heritability?* **Guðný Ella Thorlacius, Karolinska Institutet, Sweden:** *Genetic associations with non-syndromic aortic coarctation and sub-phenotypes*
12.30-13.30	**LUNCH & EXHIBITION**
13.30-13.45	**Short talk: Bettina Lundgren, Danish National Genome Center** *Danish National Genome Center's role in the development of Personalized Medicine*
13.45-14.15	**Keynote 1** **Camilla Stoltenberg, Norwegian Institute of Public Health, Norway** *How we can use unique Nordic research infrastructures to study the long-term effects of the covid-19 pandemic and vaccination?*
14.15-16.15	**Session 2: Precision Medicine Research in Brain Disorders** Chairs: Anders Børglum, Aarhus University, Denmark, and Thomas Werge, Institute of Biological Psychiatry, Roskilde, Denmark
14.15-14.30	**Ole Andreassen, University of Oslo, Norway:** *Early diagnosis and treatment stratification in Alzheimer's disease – multimodal approach*
14.30-14.45	**Ditte Demontis, Aarhus University, Denmark:** *The genetic architecture of ADHD and overlap with other phenotypes*
14.45-15.15	**BREAK & EXHIBITION**
15.15-15.30	**Lu Yi, Karolinska Institutet, Sweden:** *A Trans-Nordic Study of Extreme Major Depression*
15.30-15.45	**Kasper Lage, University of Copenhagen, Denmark:** *Using brain cell-type-specific protein interactomes to interpret genetic data in neuropsychiatric diseases*
15.45-16.15	**Panel discussion with speakers and Jan Egebjerg, Lundbeck Foundation, Denmark**
16.15-17.00	**Keynote 2** **Kári Stefánsson, deCODE genetics, Iceland** *Human diversity*
17.00-18.00	**POSTER RECEPTION WITH DRINKS & CANAPÉS**

Friday, 4 November 2022

08.00-08.30	**Welcome & morning coffee**
08.30-09.30	**Short talks:**
08.30-08.45	**Sædís Sævarsdottír, University of Iceland and Sisse Ostrowski, University of Copenhagen, Denmark:** *Nordic precision/personalized medicine curriculum*
08.45-09.00	**Kaur Alasoo, University of Tartu, Estonia:** *Challenges in identifying causal genes responsible for GWAS associations: horizontal pleiotropy and missing contexts.*
09.00-09.30	***Talks chosen from abstracts***
09.30-10.00	**Keynote 3** **Saskia Sanderson, Our Future Health, United Kingdom** *Our Future Health: a new national health research cohort in the UK*
10.00-10.30	**BREAK & EXHIBITION**
10.30-12.00	**Session 3: Precision Medicine in Cardiometabolic disorders** Chairs: Pål Njølstad, University of Bergen, Norway, and Niels Jessen, Steno Diabetes Center Aarhus, Denmark
10.30-10.45	**Pål Njølstad, University of Bergen, Norway:** *Functional studies of HNF1A in precision diabetes medicine*
10.45-11.00	**Torben Hansen, University of Copenhagen, Denmark:** *Inuits and risk for insulin resistance and cardiovascular disease*
11.00-11.15	**Emma Ahlqvist, Lund University, Sweden:** *New classification of diabetes using data driven approach*
11.15-11.30	**Hannes Helgason, deCODE, Iceland:** *Prediction of cardiovascular events using large-scale proteomics*
11.30-12.00	**Commentary and panel discussion with speakers** **Discussant: Robert Morton, Novo Nordisk Foundation, Denmark**
12.00-13.00	**LUNCH & EXHIBITION**
13.00-13.30	**Keynote 4** **Henrik Ullum, Statens Serum Institut, Denmark** *How biobanks and national data-infrastructures can contribute to the development of precision medicine*
13.30-14.45	**Session 4: Precision Medicine in Cancer: Lessons for Other Common Disorders** Chairs: Eivind Hovig, University of Oslo, Norway, and Sisse Ostrowski, Righospitalet and University of Copenhagen, Denmark
13.30-13.45	**Richard Rosenquist Brandell, Karolinska Institutet, Genomics Medicine Sweden:** *Implementing precision medicine in hematological malignancies*
13.45-14.00	**Hege Russnes, Oslo University Hospital, Norway:** *The precision cancer medicine implementation initiative in Norway*
14.00-14.15	**Tomi Mäkelä, University of Helsinki, Finland:** *The iCAN Digital Precision Cancer Medicine Flagship*
14.15-14.30	**Sigurgeir Ólafsson, deCODE genetics, Iceland:** *Metaanalysis of somatic substitutions and indels in 8k colorectal cancers*
14.30-14.45	**Panel discussion with speakers**
14.45-15.15	**BREAK & EXHIBITION**
15.15-16.00	**Panel discussion: Future of Nordic Precision Medicine** Richard Rosenquist Brandell, Karolinska Institutet, Genomics Medicine Sweden Jan Egebjerg, Lundbeck Foundation, Denmark Lili Milani, Estonian Genome Center Saskia Sanderson, Our Future Health, United Kingdom Kári Stefánsson, deCODE genetics, Iceland Camilla Stoltenberg, Norwegian Institute of Public Health Henrik Ullum, Statens Serum Institute, Denmark **Moderator:** Hakon Heimer, NSHG-PM
16.00	**End of conference**

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Member benefits

The benefits of membership for you and your research include reduced registration fees at Nordic Society of Human Genetics and Precision Medicine conferences, symposia, and select workshops. Equally important, you are helping to support the field as NSHG-PM works to educate and advocate for human genetics and precision medicine research in academic, policy, and public education arenas.

1-Year Membership 50,00 EUR

1-Year Membership – Trainee/Student 30,00 EUR

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WWW.NSHG-PM.ORG/MEMBERSHIP

Posters

P1	A Large Meta-Analysis Across Four Nordic Countries Reveals Several Significant Genetic Associations for Early Onset Major Depressive Disorder	John	Shorter
P2	A Genome-Wide Cross-Trait Analysis Between Sex Hormone-Binding Globulin and Rheumatoid Arthritis	Yuan	Jiang
P3	A GWAS of Speech Acoustics Identifies Variants Associated with Voice Pitch and Cardiovascular Traits	Rósa	Gísladóttir
P4	A Novel Reference Architecture for Multi-Party Federation: Enabling Joint Analysis of Large-Scale Clinical-Genomic Data Across Distributed Trusted Research Environments	Thorben	Seeger
P5	A systematic Mapping of the Genomic and Proteomic Variation Associated with Monogenic Diabetes	Ksenia	Kuznetsova
P6	Accuracy of Haplotype Estimation and Whole Genome Imputation Affects Complex Trait Analyses and Equity in Implementation of Precision Medicine Initiatives	Vivek	Appadurai
P7	Actionable Genotypes in a Large-Scale Study in Iceland	Brynjar	Jensson
P8	ADuLT: An efficient and Robust Time-To-Event Model for GWAS	Bjarni	Vilhjalmsson
P9	A Transcriptional Score for Stratification of Patients with Acute Infection	Eddie	Cano-Gamez
P10	A Nordic Network to Promote Precision Medicine Research	Hakon	Heimer
P11	Developing Resources for Genomic Medicine in Switzerland	Katrin	Männik
P12	Discovering the Genetics of Kidney Function Decline Using Large-Scale Genomic Data	Humaira	Rasheed
P13	Do Polygenic Risk Scores Improve our Ability to Predict Recurrent Hospital Admission in Patients with Bipolar Disorder?	Katherine	Musliner
P14	Empowering Genomics with Proteomics: Therapeutic Target and Biomarker Discovery Leveraging Large Population Cohorts like the UK Biobank	Anna	Lejon
P15	Estimating the Genetic Relationship Between Psychiatric Disorders and Cardiovascular Diseases Using Genotypic Data, along with the Extensive Genealogies and National Patient Registries of Denmark and Sweden.	Joeri	Meijsen
P16	Evaluation of Fine Mapping Approaches Based on Bayesian Linear Regression Models	Merina	Shrestha
P17	Familial Co-Aggregation of Multiple Sclerosis and Autoimmune Diseases - a Swedish Population-Based Study	Qianwen	Liu
P18	Genetic and Phenotypic Associations Between Thyroid and Reproductive Health Traits	Jéssica	Figueredo
P19	Genome Wide Association Studies of the Kynurenine Pathway-The Hordaland Health Study (HUSK)	Chinh	Nguyen
P20	Genome Wide Association Study of Clinically Predicted Suicide Liability	Anders	Jespersen
P21	Genome-Wide Association Study Identify New Genetic Determinants of Resting Heart Rate	Marie	Klevjer
P22	Global Long COVID Host Genetics Iniative Identifies FOXP4 locus as the First Genetic Risk Factor Associated to Long COVID	Minttu	Marttila
P23	Heterogeneity of Unknown Auto-Inflammatory Diseases	Sara	Garcia
P24	HLA Associations Between Epstein-Barr Virus and Multiple Sclerosis	Jesse	Huang
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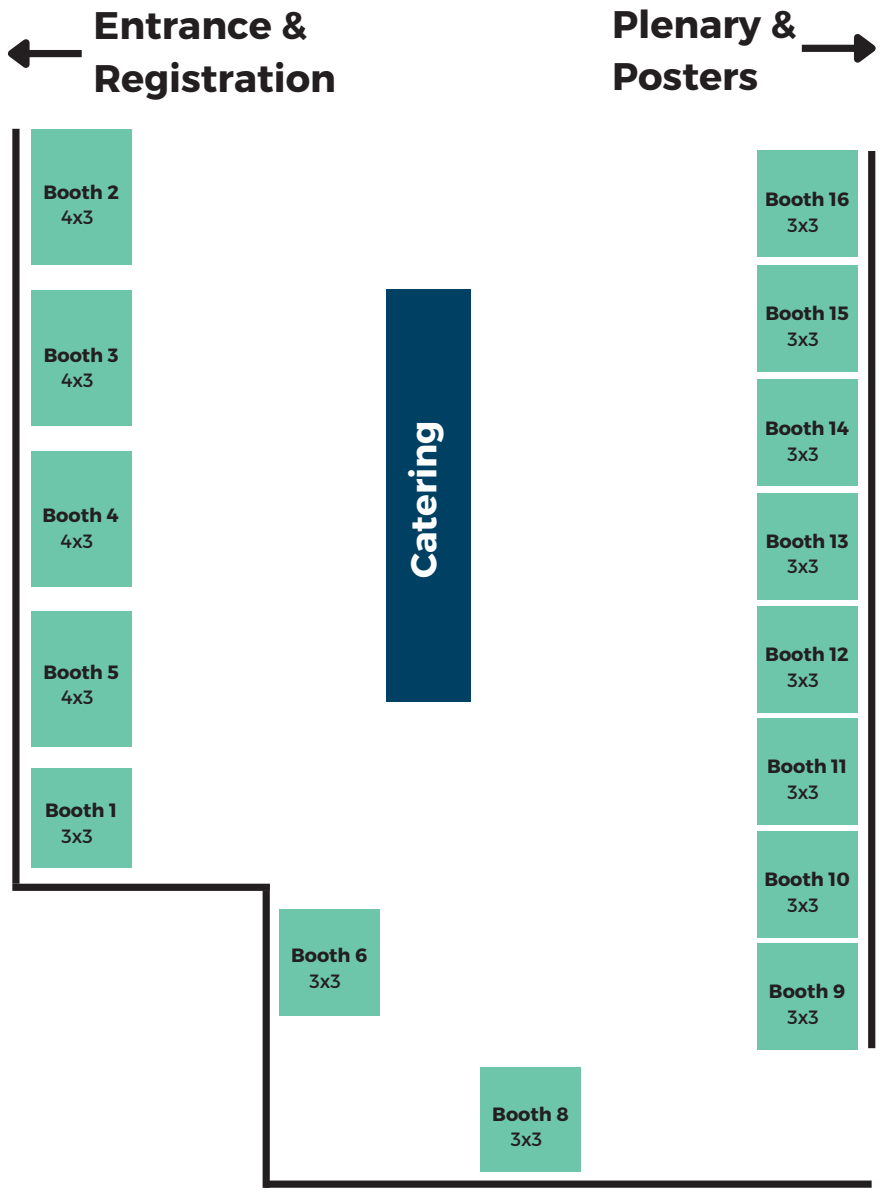
P26	Identifying Causal Genetic Variants in Diabetes- and Adiposity-Associated Genes Using CRISPR and Isogenic Cell Lines	Sebastian	Kalamajski
P27	Implementation of Polygenic Risk Score Guided Breast Cancer Prediction in Norwegian Data	Eivind	Hovig
P28	Improved Rare and Low-Frequency Variant Imputation with the Novel SISu 4.2 Finnish Population-Specific Genotype Imputation Reference Panel.	Kalle	Pärn
P29	Mendelian Randomization Study of Birth Weight and Risk of Psychiatric Disorders Later in Life	Xiaoping	Wu
P30	Multi-Omic Profiling of Spontaneous Migraine Attacks Treated with a Triptan	Lisette	Kogelman
P31	Multi-PGS Enhances Polygenic Prediction: Weighting 937 Polygenic Scores	Clara	Albiñana
P32	Parental Transmitted and Non-Transmitted Alleles Recapitulate Known Biology of Neonatal Jaundice	Pol	Sole-Navais
P33	Patterns of Genetic Overlap Across Mental Disorders and Braits Beyond Genetic Correlation	Guy	Hindley
P34	Polygenic Health Index, General Health, and Pleiotropy: Sibling Analysis and Disease Risk Reduction	Laurent	Tellier
P35	Population-Level Study of CNVs and Their Associated Risk of Psychiatric Disorders in a Danish Case-Cohort	Morteza	Vaez
P36	Publicly Available Privacy-preserving Benchmarks for Polygenic Prediction	Menno	Witteveen
P37	Quantifying The Assortative Mating of Psychiatric Disorders and Its Consequences in Denmark	Saeid	Rasekhi Dehkordi
P38	Swiss National SARS-CoV-2 Genome and Variant Surveillance Program	Marc	Friedli
P39	The Role of Depression and its Treatment in Antihypertensive Medication Adherence and Persistence	Hanna	Kariis
P40	Time-Varying Effects are Common in Genetic Control of Gestational Duration	Karin	Ytterberg
P41	Ultralow-cost Genomic Population Screening	Ulrik	Stoltze

Exhibition Floor Plan



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Exhibitor Directory

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CeGat www.cegat.com	CeGaT is a global provider of genetic analyses for a wide range of medical, research, and pharmaceutical applications.
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THE NORDIC SOCIETY OF HUMAN GENETICS AND PRECISION MEDICINE

OUR MISSION

Establish a Nordic framework for precision medicine research

Accelerate discovery of genes related to disease susceptibility and protection

Translate research findings to be used for precision medicine to improve public health

Uphold and promote high legal, regulatory, social and ethical standards

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