Symposium: Future perspectives, beyond whole genome sequencing in neonatal screening

Time: 23. August 2018, 14:00-18:00
Place: Lundsgaard Auditorium, Panum institute, Blegdamsvej 3b

Introduction
Omics and whole genome sequencing holds large and promising potentials, not only towards personalized treatment but also towards targeted prevention. Today the PKU test preformed on new-borns has been expanded with several markers which can indicate a high risk of developing a certain condition, and which are actionable in the sense that concrete actions and interventions can prevent development of health damaging conditions in the infants and later in life.

This symposium addresses the broader future perspectives in neonatal screening beyond WGS. I.e. the aim is to present and reflect upon the important role of proteomics, metagenomics, and other omics technologies in refining the information obtained by WGS and the potentials and need for Artificial Intelligence in analysing and learning from the WGS and other omics data. Furthermore, the aim is to present early WGS based screening for immunodeficiency and present nutri-genomics and nutri-metagenomics as areas that hold particular promises for actionable markers of specific nutritional regimes, not only in relation to new-borns and infants, but also for the public in general. Please read more about the event at the LOM website.

Programme

Chairs: Karsten Kristiansen and Søren Brunak

14.00 Professor Karsten Kristiansen, University of Copenhagen: Introduction - Opportunities in omics (10 min)

14.10 Professor Lennart Hammerström, Karolinska Institutet, Sweden: Newborn screening - WGS and beyond (35+5 min)

14.50 Professor Eran Elinav, Department of Immunology, Weizmann Institute of Science, Rehovot, Israel: Host micro biome interactions in health and disease (35+5 min)

15.30 Break (30 minutes)

16.00 Professor Matthias Mann, University of Copenhagen and Max Planck Institute of Biochemistry: Opportunities in proteomics analyses in neonatal screening. (35+5 min)

16.40 Professor Søren Brunak, University of Copenhagen: Perspectives in the area of longitudinal big data analysis. (35+5 min)

17.20 Professor Jun Wang, University of Copenhagen and iCarbonX: Manage the digital life of your kids (35+5 min)

This seminar is open for all and is supported by the Graduate Programme for Basic Metabolic Research (Led by Professor Torben Hansen), Graduate School of Health and Medical Sciences, University of Copenhagen.