

## Oslo Placenta-Brain seminar

**Date:** May 22-23, 2024

**Place:** DBL-bygget Diakonveien 18, 0370 Oslo, Norway

Is it all about the brain? The role of the placenta in mental health

*Wednesday, May 22*

7:30 **Morning Coffee**

### **Session 1: Tribute to Ingrid Agartz**

Celebration of Ingrid's retirement

8:00 **Erik Ganesh Sjøgaard**, Head of the Division of Mental Health and Addiction, Diakonhjemmet Hospital – Introduction to the Seminar and congratulatory remarks on Ingrid Agartz's retirement – *Celebrating a trailblazing career with decades of pioneering contributions*

8:15 **Ole A. Andreassen**, Professor of Psychiatry, University of Oslo – *Ingrid Agartz – frontline psychosis research*

8:30 **Unn Kristin Haukvik**, Professor of Psychiatry, University of Oslo –

8:45 **Kjetil Nordbø Jørgensen**, Researcher, University of Oslo – *Structural MRI in research on psychotic disorders: Challenges ahead*

9:00 **Coffee Break**

9:15 **Ingrid Agartz** – University of Oslo and Diakonhjemmet Hospital – *A personal take on a journey in psychosis research: tributes and acknowledgments*

### **Session 2: Placenta and genomic risk for schizophrenia**

Moderator: Ingrid Agartz

10:15 Tereza **Cindrova-Davies**, University of Cambridge, UK – *Overview of placental biology and how the intrauterine environment might affect fetal neurodevelopment*

10:45 Gianluca **Ursini**, Lieber Institute for Brain Development, Johns Hopkins University, USA – *Placental genomics and trajectories of risk for schizophrenia*

11:15 Laura **Wortinger**, Adult Psychiatry Department, Diakonhjemmet Hospital, Norway – *Placental genomic risk for schizophrenia and obstetric complications affect brain development*

11:45 **Q&A**

12:00-12:50 **Lunch** –

12:50 Recognition of **Prof. Thomas F. McNeil** – Ingrid Agartz

### **Session 3: Adverse Pre-and perinatal environment**

Moderator: Laura Wortinger

13:00 Marianne **Thoresen**, University of Oslo, Norway – *Perinatal asphyxia, management and long-term outcome*

13:30 Anne Cathrine **Staff**, University of Oslo, Norway – *Placental messages from the fetus: affecting the maternal brain?*

14:00 Alexandre **Bonnin**, University of Southern California, USA – *Inflammation alters placental and fetal blood-brain barriers development leading to life-long neurological disorders*

14:30 **Q&A**

14:45 **Coffee break**

### **Session 4: Genes and the environment**

Moderator: Gianluca Ursini

15:00 Ole A. **Andreassen**, University of Oslo, Norway – *Polygenic brain and behavioral phenotypes – potential for multimodal precision psychiatry tools*

15:30 Bart **Rutten**, Maastricht University, The Netherlands – *Gene environment interplay in mental ill health: evidence from international endeavors on psychosis and PTSD*

16:00 Nora **Fernandez-Jimenez**, University of the Basque Country, Spain – *Placenta methylation and neurodevelopmental outcomes*

16:30 **Q&A**

Thursday, May 23

8:30 **Morning Coffee**

### **Session 1: Pregnancy screening and outcome**

Moderator: Giovanna Punzi

9:00 Arne **Klungland**, University of Oslo, Norway – *Genetic reprogramming in meiosis and the preimplantation embryo; health in the very early stages of life*

9:20 Mira **Moufarrej**, Stanford University, USA – *Improving prenatal care through liquid biopsies*

9:50 Stephanie S. G. **Brown**, University of Cambridge, UK – *Neurodevelopment & the hypothalamus in Prader-Willi syndrome*

10:10 **Q&A**

10:20 **Coffee break**

### **Session 2: Longitudinal cohorts**

Moderator: Bart Rutten

10:40 Laurie **Hannigan**, Norwegian Institute of Public Health, Norway – *Prenatal maternal stress: triangulating evidence for intrauterine exposure effects on birth and early childhood outcomes across multiple approaches in the Norwegian Mother, Father and Child Cohort Study (MoBa)*

11:00 Lourdes **Fañanás and Nerea San Martin Gonzalez**, University of Barcelona, Spain – *Prenatal psychosocial stress exposure and newborn developmental outcomes: preliminary results from the Spanish Maternal Epi\_Project Cohort*

11:20 Stephanie **Witt**, Heidelberg University, University Medical Centre Mannheim, Germany – *Prenatal maternal stress and epigenome-wide placental DNA methylation in the POSEIDON cohort*

11:40 Rosa Ayesa **Arriola**, Marqués de Valdecilla University Hospital, Department of Psychiatry, Spain – *Cohort of COVID-19 pregnant women and newborns: study of biological and psychological aspects related to neurodevelopment*

12:00 **Q&A**

12:15-13:00 **Lunch –**

### **Session 3: In vitro models**

Moderator: Gianluca Ursini

13:00 Thorold **Theunissen**, Washington University, USA – *Dissecting genetic and epigenetic mechanisms of human placental development using naive pluripotent stem cells*

13:20 Rowan **Karvas**, Washington University, USA – *3D modeling of placental and embryonic development- unleashing the potential of naïve human pluripotent stem cells*

13:40 Jiyoung **Kim**, Lieber Institute for Brain Development, Johns Hopkins University, USA – *Analyzing the relationship between schizophrenia and placenta biology, using iPSC-derived trophoblast cultures*

14:00 **Q&A**

14:15 **Coffee break**

#### **Session 4: *In vivo* models**

Moderator: Marianne Thoresen

14:30 Julia **Gundersen**, Institute of Basic Medical Sciences, University of Oslo, Norway – *Perinatal stressors in models of hypoxic-ischemic brain injury*

14:50 Claire-Marie **Vacher**, Columbia University Medical Center, USA – *Placental Steroids Shape Brain Development and Long-Term Behaviors: Influence of Sex.*

15:10 **Q&A**

15:20 **Closing remarks by Organizers and User Group representative**

15:45 **End of 2-day seminar**