



# StratNeuro Retreat 2025

## Day 1: May 27th

08.15 Buses leaving KI to Djurönäset (Departs from Aula Medica)

09.00–09.30 Arrival + coffee and buns

### Plenary session 1

09.30–09.45 **Opening of meeting, StratNeuro introduction**

**Konstantinos Meletis**, director for StratNeuro (Neuro, KI)

09.50–10.30 **Keynote Lecture**

*Mechanisms of memory selection and consolidation*

**György Buzsáki** (NYU Grossman School of Medicine, USA)

Chair: Karin Jensen (CNS, KI)

10.40–10.50 **Short talk 1**

*Mitochondria: Gatekeepers of Dopaminergic Neuronal Health and Fate in Parkinson's Disease*

**Roberta Filograna** (MBB, KI)

Chair: Karin Jensen (CNS, KI)

11.00–11.30 Coffee break

11.30–11.40 **Short talk 2**

*Characterizing the paediatric MS prodrome: Insights from Canada and Sweden.*

**Kyla McKay** (CNS, KI)

Chair: Karin Jensen (CNS, KI)

11:45–12:10 **Poster blitz** (90 sec each, 10 participants, selected among abstracts)

Audience votes best Basic & Translational Blitz

12:10–12:20 **Group photo outside**

12.45–13.45 Lunch

### Plenary session 2

13.50–14.30 **Keynote Lecture**

*Probing and Rescuing Dysfunctional Brain Circuits in Depression.*

**Conor Liston** (Cornell University, USA)

Chair: Joana Pereira (CNS, KI)

14.40–14.50 **Short talk 3**



*Distinct Tau PET Dynamics in Early vs. Late Age-of-Onset Alzheimer's disease*

**Konstantinos Chiotis** (NVS, KI)

Chair: Joana Pereira (CNS, KI)

14.55–15.25 Coffee break + Pick up room keys

**Plenary session 3**

15.25–15.45 **Talk 1**

*Caught in a moment: dynamics of proteins at the nanoscale*

**Ilaria Testa** (KTH)

Chair: Pablo Lopez (Neuro, KI)

15.55–16.15 **Talk 2**

*Single-Cell and Spatial omics of Oligodendroglia in Development and in Multiple Sclerosis*

**Gonçalo Castelo-Branco** (MBB, KI)

Chair: Pablo Lopez (Neuro, KI)

16:20–18:00 Check-in, Free Time, hanging posters

18.00–20.15 **Poster and Mingle session** (With drinks and finger food)

Group 1 (odd numbered posters): 18:00–19:00

Group 2 (even numbered posters): 19:00–20:00

**-- Take down the posters at the end of the session --**

20.30–22.00 Dinner

22.00– 01:00 (Bar, music, pay for own drinks)

**Day 2: May 28th**

07.00–09.15 Breakfast (Check-out latest by 11.00)

**Plenary session 4**

09:30–10:10 **Keynote Lecture**

*Measuring neuro latent dynamics*

**Mackenzie Mathis** (EPFL, Switzerland)

Chair: Pablo Lopez (Neuro, KI)

10:20–10:40 **Talk 3**

*Neural and molecular mechanisms of compulsive alcohol use*

**Markus Heilig** (Linköping University, Sweden)

Chair: Konstantinos Meletis

10.50–11.15 Coffee Break (Check-out latest by 11.00)



**Parallel break-out sessions:**

**11:15–12:45 Break-out session I: Computational/imaging challenges in neuroscience.**

Hosted by Joana Pereira (CNS, KI)

Speakers:

- *Imaging Connectomics vs Connetopic Mapping for Systems Neuroscience*  
Chris Beckmann (Radboud University Medical Centre, The Netherlands)
- *Ultra-High Field MRI: the opportunities and the challenges*  
David Norris (Radboud University Medical Centre, The Netherlands)
- *Semantic real-time fMRI neurofeedback of emotions at 7 Tesla: from computational principles to clinical applications*  
Rainer Goebel (Maastrich University, The Netherlands)

**11:15–12:45 Break-out session II: Traumatic brain Injury**

Hosted by Eric Thelin (CNS, KI)

Speakers:

- *Precision Medicine in TBI: Bridging Animal Studies to Personalized Care*  
Elham Rostami (Uppsala University and Karolinska Institute)
- *Short- and long-term consequences of concussion in sport*  
Niklas Marklund (Lund University)
- *Mesenchymal stromal cell-based therapy for traumatic brain injury: from mechanisms to translation*  
Elisa R Zanier (IRCCS, Italy)
- *Protein Biomarkers in the Management of Traumatic Brain Injury: Translational Insights and Clinical Applications*  
András Büki (Örebro University)

12.45–13.45 Lunch

**Parallel break-out sessions:**

**13.45–15.15 Break-out session III: New molecular tools for neuroscience**

Hosted by Michael Ratz (CMB, KI)

Speakers:

- *Seeing is Believing: Exploring Whole-Brain RNA Transcripts in Three Dimensions*  
Per Uhlén (MBB, KI)
- *Tracing 1000s of synaptic connections with barcoded rabies viruses*  
Petr Znamenskiy (The Francis Crick Institute, UK)
- *NEPTUNE, neural plate targeting with in utero nano-injection, reveals nervous system fundamentals*  
Emma Andersson (CMB, KI)

**13.45–15.15 Break-out session IV: Functional genomics in psychiatry**



Hosted by Shuyang Yao

**Speakers:**

- *Functional variation in the human genome: Lessons from population genetics and CRISPR perturbations*  
Tuuli Lappalainen (KTH, SciLifeLab & NY Genome Center)
- *Genes, Lipids, and Mental Health*  
Eva-Christina Schulte (University of Bonn, Germany)
- *Leveraging functional annotations to enhance risk prediction and biological discovery*  
Jian Zeng (University of Queensland, Australia)

15.15–15:35 Coffee Break

15:35–16:00 ***Concluding remarks & poster prize awards***

16.00 Buses return to KI (arrival approx. 17.00)