



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)