MEETING OF THE NEUROLEMAN NETWORK AND DOCTORAL SCHOOLS (NLN) 2026

ORGANIZED BY RALF SCHNEGGENBURGER (EPFL) & ULRIKE TOEPEL (LNDS) & ANTHONY HOLTMAAT (UNIGE) & NICOLAS TONI (UNIL)

FRIDAY, SEPTEMBER 4

FROM 9:00	ARRIVAL, COFFEE AND POSTER SET-UP
9:45	**WELCOME WORDS**
10:00	**PLENARY LECTURE** **LARRY ZWEIFEL (DEPARTMENT OF PSYCHIATRY AND BEHAVIORAL SCIENCE, UNIVERSITY OF WASHINGTON, U.S.A.)** ADVANCES IN THE RESOLUTION OF CELL TYPES AND GENE FUNCTION IN THE NEURAL CIRCUITRY OF MOTIVATION *MODERATOR: RALF SCHNEGGENBURGER*
11:00	**DATA BLITZ BY NEUROLEMAN PHD CANDIDATES** (10MIN EACH#*) • DIANA PANFILOVA (UNIL; #70) • KABIROU ADAMOU (UNIL; #1) • NISHANT JANA (EPFL; #56) • ELENA MOMBELLI (EPFL; #67) • HÉLOÏSE POLICET-BÉTEND (UNIGE; #82) *MODERATORS: LÉA SCHMIDT & AURÉLIEN BADINA*
12:00	**NEUROLEMAN JUNIOR PI TALK** **FANNY LANGLET, DSB-UNIL** CONVERSATIONS AT THE BRAIN–METABOLISM INTERFACE: THE MULTIFACETED ROLES OF TANYCYTES *MODERATOR: ELIF HARPUT*
12:30	**LUNCH POSTER SESSION WITH POSTER NUMBERS 1-60 #** > PRESENTATION OF ODD NUMBERS FROM 12:30 -13:15 > PRESENTATION OF EVEN NUMBERS FROM 13:15-14:00
14:00	**DATA BLITZ BY NEUROLEMAN PHD CANDIDATES** (10MIN EACH#*) • MAREN BORN (UNIL; #7) • ALESSANDRA PANZERI (UNIGE; #71) • FLORIAN PERRIN (UNIL; #78) • SYLVIE DENKINGER (UNIGE; #30) *MODERATORS: LOUISE DE WOUTERS & KABIROU ADAMOU*
15:00	**NEUROLEMAN JUNIOR PI TALK** **JAMES PRIESTLEY, EPFL** HIPPOCAMPAL CODES FOR STRUCTURAL AND EPISODIC LEARNING *MODERATORS: HÉLOÏSE POLICET-BÉTEND & TEYA PETROVA*
15:30	COFFEE BREAK
16:00	**DATA BLITZ BY NEUROLEMAN PHD CANDIDATES** (10MIN EACH#*) • AURÉLIEN BADINA (UNIGE; #5) • ELIF HARPUT (UNIGE; #48) • PAOLA MILANESE (UNIL; #65) • VASILEIOS PATSOURAKOS (UNIL; #74) *MODERATORS: ELENA MOMBELLI & FLORIAN PERRIN*
16:45	**NEUROLEMAN JUNIOR PI TALK** **ALISON MONTAGRIN, UNIGE** MAPPING GOALS: HOW THE HIPPOCAMPUS SHAPES TEMPORAL MEMORY *MODERATOR: MAREN BORN & SYLVIE DENKINGER*
17:15	**NEUROLEMAN SCIENCE CAREER ROUNDTABLE** FIND OUT ABOUT THE PROFESSIONAL PATHWAYS OF NEUROLEMAN PI'S, THEIR PERSONAL DO'S AND DON'TS IN CAREER PLANNING AND ASK QUESTIONS MODERATORS: DIANA PANFILOVA & SILAS FORRER
18:00 – 19:30	**APÉRO POSTER SESSION WITH POSTER NUMBERS 61-120 #** > PRESENTATION OF ODD NUMBERS FROM 18:00 -18:45 > PRESENTATION OF EVEN NUMBERS FROM 18:45-19:30
20:00	DINNER @ SAC

** Short talks selected from abstracts.*
 # Numbers correspond to NLN abstract book.

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SATURDAY, SEPTEMBER 5

09:30	**PLENARY LECTURE** **JOHANNES FELSENBERG, FRIEDRICH MIESCHER INSTITUTE FOR BIOMEDICAL RESEARCH, BASEL, SWITZERLAND** TOTAL RECALL IN TINY BRAINS: FROM RECOVERY OF FORGOTTEN INFORMATION TO IMPLANTING FALSE MEMORIES *MODERATORS: PAOLA MILANESE & NISHANT JANA*
10:30	COFFEE BREAK
11:00	**DATA BLITZ BY NEUROLEMAN PHD CANDIDATES** (10MIN EACH#*) • TEYA PETROVA (UNIL; #79) • SILAS FORRER (UNIGE; #41) • LÉA SCHMIDT (UNIL; #96) • LOUISE DE WOUTERS (UNIGE; #33) *MODERATORS:* ALESSANDRA PANZERI & VASILEIOS PATSOURAKOS
11:45	**BEST NLN PRESENTATION AWARDS** • AWARD OF THE **JEAN FALK-VAIRANT FOUNDATION** FOR THE BEST BASIC AND THE BEST CLINICAL NEUROSCIENCE POSTER OR ORAL PRESENTATION • **NEUROLÉMAN NETWORK AWARD** FOR THE BEST ORAL AND THE BEST POSTER PRESENTATION **ANNOUNCEMENTS AND MEETING CLOSURE**
FROM 12:15	**NEUROLEMAN NETWORKING LUNCH** ACCOMPANIED BY SOCIAL ACTIVITIES ORGANIZED BY NEUROLEMAN PHD CANDIDATES

** Short talks selected from abstracts.*
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TALK ABSTRACTS

(FOR SHORT TALK ABSTRACTS PLEASE REFER TO THE NLN ABSTRACT BOOK)

LARRY ZWEIFEL (DEPARTMENT OF PSYCHIATRY AND BEHAVIORAL SCIENCE, UNIVERSITY OF WASHINGTON, U.S.A.)

ADVANCES IN THE RESOLUTION OF CELL TYPES AND GENE FUNCTION IN THE NEURAL CIRCUITRY OF MOTIVATION

The ventral tegmental area (VTA) is comprised of numerous distinct cell types. Activity patterns of VTA dopamine neurons are regulated by a myriad of voltage gated ion channels. I will discuss advances in cell-type specific gene manipulation using CRISPR/Cas9 technology to determine the contribution of specific ion channels to different patterns of neuronal activation. I will further discuss single cell genomic approaches for the identification of specific subpopulations of dopamine and GABA-releasing neurons of the VTA and the use of mouse genetics to resolve the circuit connectivity and function of these cell types.

JOHANNES FELSENBERG, FRIEDRICH MIESCHER INSTITUTE FOR BIOMEDICAL RESEARCH, BASEL, SWITZERLAND

TOTAL RECALL IN TINY BRAINS: FROM RECOVERY OF FORGOTTEN INFORMATION TO IMPLANTING FALSE MEMORIES

This talk will explore how forgotten memories in *Drosophila* can persist in a silent state and how their recovery through reminder cues can reinstate learned avoidance. I will also show how manipulating this recovery process can misguide memory reconstruction and implant false memories. Finally, I will discuss why this flexibility in memory reconstruction is constrained by plausibility, and how false memories may therefore arise as a by-product of an adaptive process.

FANNY LANGLET, DSB-UNIL

CONVERSATIONS AT THE BRAIN–METABOLISM INTERFACE: THE MULTIFACETED ROLES OF TANYCYTES

In the last decade, it has become clear that tanycytes –hypothalamic glial cells lining the bottom of the third ventricle– are in a prime position to detect variations of nutrient and hormone levels and transmit the metabolic information to neurons then. Our research aims to understand the molecular mechanisms underlying the dialogue between tanycytes and neurons, the heterogeneity of these interactions, and their functional disturbances induced by obesity.

JAMES PRIESTLEY, EPFL

HIPPOCAMPAL CODES FOR STRUCTURAL AND EPISODIC LEARNING

Neural activity in the hippocampus is organised by highly reliable sequential dynamics. These neural codes are classically labeled by their correlation to specific sensory or cognitive variables (e.g. place cells, tone cells, reward cells, among others). But far from discrete subpopulations, these response profiles are usually highly intermixed in the neural code. The ability to decode different dimensions of experience from hippocampal activity also varies widely across behavioural and sensory settings. In my laboratory, we combine large scale optical recordings of hippocampal neural populations with immersive virtual reality in mice, in order to map the connection between neural dynamics, ongoing sensory experience, and behaviour. In a first experiment, I will describe how sequences of hippocampal place cells are differentially aligned to visual landmarks or path integration, depending on the complexity of the virtual environment and the animals' memory strategy. In a second experiment, I will show how rapid, few-shot memory formation can dramatically modify the place code, and implicate novel synaptic learning rules as a substrate for episodic learning in the hippocampus. Overall, these works indicate that the hippocampus continually synthesises a representation of ongoing experience, one that is filtered and compressed by the animal's attention and behavioural goals. But the circuit remains highly plastic in the presence of salient events, which is key to rapid memory formation and adaptive behaviour.

ALISON MONTAGRIN, UNIGE

MAPPING GOALS: HOW THE HIPPOCAMPUS SHAPES TEMPORAL MEMORY

Our brain constantly balances goals that differ in their temporal distance from the present, some requiring immediate attention, others tied to the past or future. This talk explores how the hippocampus, a key structure for episodic memory, organizes goals along this temporal dimension in humans. Focusing first on time, I will discuss how the hippocampus distinguishes goals according to their temporal distance from the present, with past, present, and future goals engaging distinct regions along its longitudinal axis.

I will then examine how the hippocampus represents the spatial and temporal dimensions that define episodic memories, and whether these dimensions rely on shared or separate neural mechanisms.

Together, these findings highlight the hippocampus's central role in integrating time and space to support memory, navigation, and goal-directed behavior, underscoring its importance in organizing our experiences and guiding our actions.

Our meeting is kindly supported by:

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