

MEETING OF THE NEUROLEMAN NETWORK AND DOCTORAL SCHOOLS 2019

FRIDAY, MAY 3 @ MAISON DU CONGRÈS

9:30	REGISTRATION, COFFEE & POSTER SET-UP	14:00	5x DATA BLITZ BY LEMANIC PHD CANDIDATES (10MIN EACH#) <ul style="list-style-type: none"> • ANTOINE PHILIPPIDES (#105) • AISTE BALEISYTE (#100) • LUCIA-MANUELA CANTONAS (#92) • LEON FODOULIAN (#77) • EMELINE MULLIER (#116) <p style="text-align: right; font-size: small;"><i>CHAIR: CRISTINA COLANGELO & KASPAR ROTHENFUSSER</i></p>
10:30-11:45	OPENING REMARKS BY THE ORGANIZERS MINI-WORKSHOP ANIMATED BY DONATELLA CANELLA (HUMAN CENTRIC LEADERS) DO YOU KNOW WHAT YOU WANT? – WAYS TO HELP YOURSELF IN YOUR CAREER SEARCH Very few people know exactly what they want to do in their professional life since their childhood years. Most of us have much less clarity on this topic. As a result, it can be rather daunting to look ahead and plan a professional future. During this mini-workshop you will learn simple and accessible tools to approach your career search with more clarity, self-confidence and resilience, whether your path is to work in academia or you are considering a move outside of the ivory tower. You will discover how to navigate the essential stages in designing your career path: i) understanding what drives you, what makes you unique and most compelling; ii) clarifying your professional focus by creating a career vision that reflects what matters most to you; iii) creating an action plan by setting concrete, significant, doable career goals; iv) appreciating how far you have come and learning from your exploration. In essence: connect to what matters to you and go do it!	15:15	LEMANIC PI LECTURE KATHRYN HESS-BELLWALD (EPFL) TOPOLOGICAL INSIGHTS IN NEUROSCIENCE <p style="text-align: right; font-size: small;"><i>CHAIR: GIULIA SANTONI & MATTIA PAGNOTTA</i></p>
12:00	PLENARY LECTURE MICHAEL HAUSSER (WOLFSON INSTITUTE FOR BIOMEDICAL RESEARCH, UNIVERSITY COLLEGE LONDON, UK) ALL-OPTICAL INTERROGATION IN BEHAVING ANIMALS <p style="text-align: right; font-size: small;"><i>CHAIR: CAMILLE BLOCHET & MAX NOLTE</i></p>	16:15	COFFEE BREAK
13:00	LUNCH	16:45	5x DATA BLITZ BY LEMANIC PHD CANDIDATES (10MIN EACH#) <ul style="list-style-type: none"> • LOTFI HADJAS (#83) • NADA KOJOVIC (#56) • HAISSA DE CASTRO ABRANTES (#96) • NISHEET PATEL (#45) • ALINE CRETENOUD (#14) <p style="text-align: right; font-size: small;"><i>CHAIR: SOLANGE DENERVAUD & PAVO OREPIC</i></p>
		18:00-19:30	POSTER SESSION & APÉRO 18:00 - ODD, BLACK NUMBERS 18:45- EVEN, RED NUMBERS
		20:00-22:00	COMMON DINNER AT THE HOTEL VICTORIA

from selected abstracts submitted for data blitz talks; # corresponds to abstract book.

Organizing committee: Kathryn Hess-Bellwald, Gabriele Grenningloh, Carl Petersen & Ralf Schneggenburger (BMI-EPFL)

Student committee: Cristina Colangelo, Nathan Riguët, Choung Oh-Hyeon (EPFL)

Coordination: Ulrike Toepel

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SATURDAY, MAY 4 @ HOTEL VICTORIA – SALLE DIABLERETS –

09:00	PLENARY LECTURE LAURA ANDREA (CENTRE FOR DEVELOPMENTAL NEUROBIOLOGY, KING'S COLLEGE LONDON, UK) THE ROLE OF SPONTANEOUS NEUROTRANSMITTER RELEASE DURING NEURONAL DEVELOPMENT <i>CHAIR: NORA TUROMAN & MARC YANGUEZ ESCALERA</i>	13:00	JEAN FALK-VAIRANT FOUNDATION PRESENTATION OF THE FOUNDATION AND A RECENT AWARDEE; AWARDS FOR THE BEST BASIC AND THE BEST CLINICAL NEUROSCIENCE POSTER OR PRESENTATION AT THE RETREAT IN 2019
10:00	5X DATA BLITZ BY LEMANIC PHD CANDIDATES (10MIN EACH#) <ul style="list-style-type: none">• MANON JAQUEROD (#27)• GIADA DIRUPO (#17)• JOANA SA DE ALMEIDA (#35)• ZONG PENG (#75)• BEATRICE BARRA (#108) <i>CHAIR: MIREILLE CONRAD & JULIAN GAVIRIA</i>	13:15	FAREWELL WORDS
11:15	COFFEE BREAK	13:30 – 15:30	BBQ AT CHALET TÉLÉTHON (DOMAINE DES SOURCES BEHIND THE HOTEL)
11:45	LEMANIC PI LECTURE PAVAN RAMDYA (EPFL) REVERSE-ENGINEERING DROSOPHILA BEHAVIOR <i>CHAIR: ALEXANDRA FILIPPOVA & ADRIANO BERNINI</i>		<i># from selected abstracts submitted for data blitz talks; # corresponds to abstract book.</i>
12:45	AMICITIA FOUNDATION PRESENTATION OF THE FOUNDATION AND THE AWARDEE OF THE AMICITIA EXCELLENCE PRIZE 2019		The meeting is kindly supported by:



Fonds Jean Falk-Vairant
Fonds Jean Falk-Vairant



Abstracts of plenary lectures

MICHAEL HAUSSER (*WOLFSON INSTITUTE FOR BIOMEDICAL RESEARCH,
UNIVERSITY COLLEGE LONDON, UK*)

ALL-OPTICAL INTERROGATION IN BEHAVING ANIMALS

Abstract to come ...

KATHRYN HESS-BELLWALD (*EPFL*)

TOPOLOGICAL INSIGHTS IN NEUROSCIENCE

Topology is the mathematics of shape, ideally suited to studying questions of connectivity and of the emergence of global structure from local constraints. In this talk I will sketch a variety of fruitful applications of topology to neuroscience, such as to the identifications of biomarkers for outcome in early psychosis and to the classification of neuron morphologies, carried out by my lab over the past few years.

LAURA ANDREAE (*CENTRE FOR DEVELOPMENTAL NEUROBIOLOGY, KING'S
COLLEGE LONDON, UK*)

THE ROLE OF SPONTANEOUS NEUROTRANSMITTER RELEASE DURING NEURONAL DEVELOPMENT

The spontaneous release of neurotransmitter from synaptic vesicles was long regarded as stochastic 'noise'. However, it has become increasingly clear that it can play a variety of important roles at the synapse. We found that levels of spontaneous vesicle cycling was exceptionally high in developing glutamatergic neurons, and therefore set out to investigate the nature of this release and the possible role it may play in driving the formation of neuronal connections.

PAVAN RAMDYA (*EPFL*)

REVERSE-ENGINEERING DROSOPHILA BEHAVIOR

A shared goal of neuroscience and robotics is to understand how systems can be built to move effectively through the world. However, state-of-the-art algorithms for selecting and executing limbed behaviors in robots are still quite primitive compared with those used by animals. To inform robotic control approaches, we are investigating how the fly, *Drosophila melanogaster*, controls complex movements. I will discuss how we are combining 2-photon imaging of the ventral nerve cord in behaving *Drosophila* with physics-based simulations and neural network modeling to uncover how flies achieve flexible behaviors.