

# 10 YEARS INT - PROGRAM

### WEDNESDAY 28/09/2022

#### 8:45 - 12:30 CONECT - Chair: L. Perrinet & D. Hansel

- 9:00 Learning generative models of latent dynamics in spiking neural networks (S. Denève)
- 9:45 Motor-related signals support localization invariance for stable visual perception (A. Benucci)

## COFFEE BREAK & Poster Session 1

Reinforcement learning of birdsong (R. Hahnloser)

11:00
Stochastic dynamics of neural representaions residing in low dimensional manifolds: from motor control to spatial cognition (Y. Burak)

LUNCH BREAK & Poster Session 1

## 13:50 – 17:30 NeuroTechCenter – Chair: M. Cazorla & R. O'Connor

- 14:00 Opto-electrical tools to manipulate brain connections on-demand (M. Cazorla)
- 14:45 Neuroprostheses for artificial vision (D. Ghezzi)

## COFFEE BREAK & Poster Session 1

- 16:00 Large Area High Resolution Optical Imaging (F. Pavone)
- 16:45 High capacity electrophysiology: Where we are and where we go (T. Harris)
  - BREAK & Poster Session 1

# 18:00 KEYNOTE: From Modulation of Small Degenerate Circuits to Climate Change (E. Marder)

#### **THURSDAY 29/09/2022**

8:00 BREAKFAST Students & D. Ghezzi

#### 8:45 - 12:30 Embodied CNS - Chair: R. Bos & G. Masson

- 9:00 Astrocytic contribution to neuronal ryththmicity in the spinal locomotor network (R. Bos)
- 9:45 Early-life adversity & altered cerebral plasticity: recent cellular & molecular evidence in humans (N. Mechawar)

### COFFEE BREAK & Poster Session 2

- 11:00 The mircrobial metabolite p Cresol induces autistic-like behaviors in mice by remodelling the gut microbiota & deregulation of central catecholamines (L. Davidovic)
- 11:45 Functional & Comparative Neuroanatomy of Interoception (H. Evrard)

LUNCH BREAK & Poster Session 2

13:55 – 17:30 Circuits, Maps & population dynamics – Chair: M. Szinte & G. Ibos

- 14:00 Facial expressions & their neural correlates reveal a reservoir of decision variables in the mouse frontal cortex (F. Cazettes)
- 14:45 From visual space to memory space: Insights from neural recordings in parietal cortex & hippocampus (S. Wirth)

#### COFFEE BREAK & Poster Session 2

- 16:00 Sensory maps in visual cortex & superior colliculus (J. Kemkow)
- 16:45 Turtles all the way up: sensory-topographic organization throughout the human brain (T. Knapen)



## 18:00 KEYNOTE: The mechanics & norms of perceptual choice (A. Renart)

300

8:00

SOCIAL EVENT Speakers' Dinner

#### FRIDAY 30/09/2022

BREAKFAST Students & A. Renart

## 8:45 – 12:30 Variability & diversity at multiple scales – Chair: J.-M. Goaillard & G. Auzias

- 9:00 Degeneracy, cell-to-cell variability, & and co-variations in ion channels properties (J.-M. Goaillard)
- 9:45 Continually reconfiguration neural circuits & feedback control in the brain (T. O'Leary)

### COFFEE BREAK & Poster Session 3

- 11:00 Cortical activity fluctuations: the good, the bad, and the circuits (R. Coen-Cagli)
- 11:45 Sulcal variability identifies differential evolution of prefrontal cortical regions in primates (C. Amiez)



# 13:50 – 17:30 Interrogating neural circuits to better understand brain function & disease (C. Beurrier & M. Degoulet)

- 14:00 How do deep-brain recordings shape the future of DBS in Parkinson's disease? (A. Eusebio)
- Amyloid precursor protein peptides: physiological 14:45 modulators of glutamergic signaling (H. Marie)

### COFFEE BREAK & Poster Session 3

- 16:00 Linking emotional valence & anxiety: case study of the insular cortex & amygdala (A. Beyeler)
- 16:45 Drug addictions: putting drugs into context (A. Baldiani)



18:00 KEYNOTE: The role of OSVZ in shaping primate visual cortex architecture (C. Dehay)



SOCIAL EVENT Apéro INT