



IN CNR Annual Retreat 2019

Area della Ricerca CNR Via Moruzzi 1, Pisa (PI) October 2-4, 2019





Program

Wednesday, October 2	
- >13:00	Registration and poster set up
14:00-14:30	Opening Remarks
14:30-16:30	Session 1 (6 presentations) BREAKING NEWS BY YOUNG IN
	RESEARCHERS Chairman: Michela Matteoli
16:30-17:00	CNR: A retrospect and a look forward Tullio Pozzan
	Chairman: Giorgio Carmignoto
17:00-18:00	Coffee break and Poster Session 1 (odd numbers)
18:00-19:00	Plenary Lecture Cesare Montecucco
	Title: Degeneration and regeneration in the peripheral nervous system
	Chairman: Matteo Caleo
Thursday, October 3	
9:00-10:30	Session 2 (6 presentations) NEUROPLASTICITY AND
	NEUROIMAGING
	Chairman: Alessandro Sale
10:30-11:00	Coffee break
11:00-12:30	Session 3 (6 presentations) BRAIN CELLULAR PHYSIOLOGY AND
	PATHOLOGY
	Chairman: Stefano Morara
12:30-13:30	Lunch
13:30-14:30	Poster Session 2 (even numbers)
14:30-17:30	Training Course, in memory of Lucia Galli-Resta: A scholarly
	approach to the CNS: the retina as a paradigm for development,
	health and disease (speakers: Lamberto Maffei; Rachel Wong,
	Benedetto Falsini, Stanislao Rizzo. Chairman: Enrica Strettoi)
17:30-19:00	IN meeting (only for IN staff)

Friday, October 4	
9:00-10:30	Session 4 (6 presentations) NEURODEVELOPMENTAL AND
	NEURODEGENERATIVE DISORDERS
	Chairman: Claudia Lodovichi
10:30-11:00	Coffee Break
11:00-12:30	Session 5 (5 presentations) NEUROMODULATION AND HORMONAL
	REGULATION OF BRAIN CIRCUITS
	Chairman: Anna Lisa Muntoni
12:30-13:00	Closing Remarks
13:00-14:30	Lunch

Training course speakers and topics

- 1. Lamberto Maffei (Italy), CNR Neuroscience Institute, Pisa. Ricordo di un esperimento di Lucia.
- 2. Rachel Wong (USA), University of Washington. *Mechanisms underlying synaptic wiring specificity in the retina*.
- 3. Stanislao Rizzo (Italy), Florence University. Artificial vision: dream or reality.
- **4.** Benedetto Falsini (Italy), La Cattolica University, Rome. Cone dysfunction and degeneration in retinitis pigmentosa: diagnosis, natural history and therapeutic approaches.

Oral communication's schedule

Session 1 BREAKING NEWS BY YOUNG IN RESEARCHERS

- **1. Silvia Landi** Diurnal oscillation of intracellular Chloride: a new modulator of cortical excitability?
- 2. Luca Murru Spotlight on Lateral habenula (LHb) function in tetraspanin7 (TSPAN7) knock-
- 3. Eleonora Vannini Bacterial toxins as innovative tools for exploring brain disorders.
- **4. Antonella Borreca** Translation efficiency is upregulated in hAPP mice before and immediately after the onset of cognitive impairments: insights for anticipating Alzheimer Disease diagnosis and treatment.
- **5. Diana Pendin** A Synthetic Fluorescent Mitochondria-Targeted Sensor for Ratiometric Imaging of Calcium in Live Cells.
- **6.** *Matteo Fossati* Selective control of inhibitory synapse development by the glutamate receptor delta-1 in cortical pyramidal neurons.

Session 2 NEUROPLASTICITY AND NEUROIMAGING

- 1. **Debora Napoli** MiR-29 coordinates age-dependent plasticity brakes in the adult visual cortex
- 2. Paola Tognini Nutrition and gut microbiota impact on cortical plasticity.
- 3. Letizia Allegra Mascaro Mesoscale imaging of neuronal activity coupled with light-evoked motor mapping reveal movement-specific spatiotemporal patterns of cortical activation in awake mice.
- **4.** Alessandro Benedetto Voluntary action modulates visually evoked cortical responses in primary visual cortex: an integrated ultra-high field fMRI and EEG.
- **5.** Ferdinando Sartucci Improvement of visual acuity in amblyopic patients following unilateral application of cathodal transcranial direct current stimulation (tDCS).
- **6. Paola Binda** Pupillometry provides new insights on figure-ground segregation and its covariation with autistic traits.

4

Session 3 BRAIN CELLULAR PHYSIOLOGY AND PATHOLOGY

- **1.** *Maria Elena Castellini* The interphotoreceptor matrix: investigating the role of IMPG2 in autosomal recessive retinitis pigmentosa.
- 2. Marco Mainardi Quantitative mapping of hippocampal synaptic memory engrams.
- **3.** Cristina Spalletti Combining Rehabilitation and Neuromodulation after stroke: novel approaches in a mouse model.
- **4.** Claudia Alia Novel cell-based strategies to promote brain repair and motor function after stroke in mice.
- **5. Silvia Penati** Molecular and cellular mechanisms underlying the relationship between metabolic alterations and cognitive decline.
- **6.** Maria Luisa Malosio Intracerebral Injection of Extracellular Vesicles from Mesenchymal Stem Cells Exerts Reduced Aβ Plaque Burden in Early Stages of a Preclinical Model of Alzheimer's Disease.

Session 4 NEURODEVELOPMENTAL AND NEURODEGENERATIVE DISORDERS

- **1.** Luigi Balasco Somatosensory hypo-reactivity to whisker stimulation in the Cntnap2 -/-mouse: a genetic mouse model of autism spectrum disorder.
- **2.** Leonardo Lupori The visual system as a biomarker in a mouse model of CDKL5 deficiency disorder.
- **3.** Vania Broccoli Whole brain delivery of an instability-prone Mecp2 transgene rescues behavioral and molecular pathological defects in mouse models of Rett syndrome.
- **4. Simone Bido** Neurodegeneration in a mouse model with alpha-synuclein accumulation in the microglia.
- **5.** *Marcello Serra* D2 receptors on indirect medium spiny neurons modulate L-DOPA-induced dyskinesia.
- **6. Giorgia Pallafacchina** Characterization of the role of sigma-1 receptor mutation in the etiology of dHMN focusing on cell homeostasis and intracellular CA2+ signaling.

Session 5 NEUROMODULATION AND HORMONAL REGULATION OF BRAIN CIRCUITS

- 1. Valentina Gigliucci New light on oxytocin receptors.
- **2.** *Cristina Cadoni* Role of genotype in the longlasting effects of nicotine exposure on mesolimbic dopamine transmission: a likely mechanism of nicotine gateway effect.
- **3.** Patrizia Porcu The brain as a target of hormonal contraceptives: evidences from animal studies.
- **4.** Roberto Bizzotto Glucose sensitivity, insulin sensitivity and their longitudinal changes are strong independent determinants of type 2 diabetes progression: an IMI DIRECT study.
- **5.** Laura Baroncelli Creatine transporter deficiency: new insights on cell-specific vulnerability to metabolic failure.

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Sponsors



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4