



**Istituto di
Neuroscienze**
Consiglio Nazionale delle Ricerche

RETREAT 2024



SCIENTIFIC PROGRAM

30 September – 3 October
S. Margherita di Pula (CA)
Hotel Flamingo

DAY 1 MONDAY 30th SEPT

13:00-14:30	<i>Registration</i>
14:30-15:00	<i>Welcome, introduction and logistics</i> CNR IN director
15:00-16:00	Opening lecture Chair: Anna Lisa Muntoni Miriam Melis - University of Cagliari <i>Psychopathological phenotypes: dopamine and endocannabinoids, it takes two to tango</i>
16:00-16:30	Coffee break
16:30-18:00	<i>Symposium 1 - Understanding behaviour</i> Chair: Pietro Avanzini - Liana Fattore Gabriele Chelini - CNR IN Pisa <i>Automated assessment of the mouse body-language reveals pervasive behavioral disruption in a two-hit model of bipolar disorder</i> Federica Maltese - CNR IN Milano <i>Self-Experience Impact on Emotion Recognition is Modulated by Cortical Corticotropin-Releasing Factor</i> Francesca Caria - University of Cagliari <i>Long-Term Effects of Adolescent 5F-MDMB-PICA Intravenous self-administration (IVSA): Neurobehavioral Consequences and medial Prefrontal Cortex Dysfunction in Adult Mice</i> Maria Del Vecchio - CNR IN Parma <i>Unravelling the neural dynamics of human tactile awareness</i> Giovanni Vecchiato - CNR IN Parma <i>The impact of architectural experience on interaction possibilities</i> Pietro Avanzini - CNR IN Parma <i>Intracortical correlates of simple conscious perception in humans</i>
18:00-19:30	Posters session 1 and wines
20:00	Dinner

Office table meetings will be present throughout for admin-scientific staff interactions

DAY 2

TUESDAY 1st OCT

09:00-10:30

Symposium 2 - **From biomarkers to therapies**

Chair: Enrica Stretto - Alessandro Sale

Maria Luisa Malosio - CNR IN Milano

Brain Injury Biomarkers in Acute Ischemic Stroke: Diagnostic and Prognostic Performances and Temporal Evolution

Gianmarco Cuboni - University of Padova

Impact of Perinatal Stroke on Motor and Cognitive Functions in a Mouse Model

Giorgia Pallafacchina - CNR IN Padova

Deciphering the intracellular calcium signals in primary human adrenocortical cell from hypertensive patients

Enrica Stretto - CNR IN Pisa

Multiple strategies for cone photoreceptor rescue in inherited retinal diseases

Francesco Ciscato - CNR IN Padova

Tailored Hexokinase 2 -displacing peptides as an anti-neoplastic approach in NF1-derived Malignant Peripheral Nerve Sheath Tumors

Eleonora Vannini - CNR IN Pisa

Reshape Glioblastoma microenvironment through toxins exploitation

10:30-11:00

Coffee break

11:00-12:30

Symposium 3 - **Neurodegenerative diseases**

Chair: Vania Broccoli - Annalisa Pinna

Nicola Facchinello - CNR IN Padova

Morphological and functional characterization of a cdk15^{-/-} zebrafish line

Giacomo Siano - CNR IN Pisa

Tau-dependent pathological alterations of nuclear pathways identified by multiomics analyses

Noemi Orsini - CNR IN Pisa

The role of extracellular vesicles in the spreading of tauopathies

Vania Broccoli - CNR IN Milano

Astrocyte-specific α -synuclein accumulation triggers neuroinflammation induced neurodegeneration in a Parkinson's disease mouse model

Maria Francesca Palmas - University of Cagliari

Dysregulation in microglia-related immune responses in cognitive impairment associated with Parkinson's disease

Marcello Serra - CNR IN Cagliari

Early in vivo and ex vivo Biomarkers of Parkinson's Disease: Insights from the Sub-Chronic MPTPp Mouse Model

13:00

Lunch

DAY 2 TUESDAY 1st OCT

15:30-17:00

CNR IN meeting

17:00-17:30

Coffee break

17:30-19:30

Training course - **Recent advances in Imaging Technologies and their Applications in Neuroscience**

Alessandro Rossi - Life Science Division Manager, Crisel Instruments
Deep tissue and live cell STED superresolution microscopy for neuroscience research

Ludovico Silvestri - LENS University of Florence
Brain of glass: potential and limitation of light-sheet microscopy in neuroscience

20:00

Dinner

Office table meetings will be present throughout for admin-scientific staff interactions

DAY 3

WEDNESDAY 2nd OCT

09:00-10:30

Symposium 4 - **Neurodevelopment: physiology, pathology and treatment**

Chair: Laura Baroncelli - Elisabetta Menna

Erika Donà - CNR IN Milano

Linking connectomics to single cell transcriptomics reveals developmental mechanisms leading to sex differences in circuit architecture

Roberta Benfante - CNR IN Milano

2D and 3D iPSC-derived neuronal models for the study of the role of lncRNA PHOX2B-AS1 in the pathogenesis of Congenital Central Hypoventilation Syndrome

Mirko Luoni - CNR IN Milano

Reframing the MECP2 gene dosage dogma: not all cells respond equally to changes in MeCP2 levels

Elisabetta Menna - CNR IN Milano

Dissecting the impact of prenatal inflammation on astrocytes and Pentraxin 3

Michele Santoni - University of Cagliari

Maternal immune activation alters the mesocorticolimbic neural activity in dams and offspring

Laura Baroncelli - CNR IN Pisa

Developing a gene therapy for the treatment of Creatine Transporter Deficiency

10:30-11:00

Coffee break

11:00-12:00

Symposium 5 - **Focus on the synapse**

Chair: Ornella Rossetto - Marta Busnelli

Matteo Fossati - CNR IN Milano

Mechanisms of synaptic dysfunction in the Angelman syndrome

Margherita Fini - CNR IN Milano

Exploring the molecular diversity of COPII-dependent transport and its role in synapse development

Ornella Rossetto - CNR IN Padova

Toxic affairs at the neuromuscular junction: degeneration, regeneration and remodelling

Federica Baronchelli - CNR IN Milano

The impact of neuronal SUMOylation in the pathogenesis of the Angelman Syndrome

12:00-12:30

Important advices to PI for PRIN PNRR and PRIN 2022

13:00

Lunch

DAY 3 WEDNESDAY 2nd OCT

In memory of Tullio Pozzan

14:30-16:00

Symposium - **Seeing is believing**
Chair: Fiorella Tonello - Diana Pendin

Rosario Rizzuto - University of Padova

Cycling calcium in and out of mitochondria: a long scientific journey with Tullio

Emy Basso - CNR IN Padova

Tullio Pozzan: vision from the future

Michela Rossini - CNR IN Padova

Dynamic chemogenetic reporters to investigate organelle coupling

Alessandro Di Spiezio - CNR IN Padova

Astrocytic calcium handling as a key player in pathophysiology of Alzheimer's disease

16:00-16:30

Coffee break

16:30-17:30

Lecture

Chair: Fiorella Tonello

Giorgio Carmignoto - CNR IN Padova

Discussing the science of astrocyte calcium signalling with Tullio

17:30-18:30

CNR IN council
Members only

18:30-20:00

Posters session 2 and wines

20:00

Dinner

Office table meetings will be present in the morning for admin-scientific staff interactions

DAY 4 THURSDAY 3rd OCT

09:30-12:00

Training course - **Recent advances in Imaging Technologies and their Applications in Neuroscience**

Martin Heine - Johannes Gutenberg University, Mainz, Germany
Dynamic of ion channels and receptors at single molecule resolution

10:30-11:00

Coffee break

Tommaso Fellin - Italian Institute of Technology
Advanced optical approaches to reveal the neural code underlying sensory perception

12:00-12:30

Closing remarks and salutations

13:00

Lunch

POSTER SESSION 1

MONDAY 30th SEPT

Cellular and molecular biology of the neuron

P01 - Francesca Piacentini - CNR IN Milano	<i>Oxytocin and Dopamine interaction in the cerebellum: implications for social behavior regulation and new therapeutic perspectives</i>
P02 - Sarah Amato - CNR IN Milano	<i>Unveiling the oxytocin-mediated regulation of signal transmission in the ventral hippocampus</i>
P03 - Luca Murru - CNR IN Milano	<i>Trehalose impact on the central nervous system: trick or treat?</i>
P04 - Nicola Origlia - CNR IN Pisa	<i>Brain-wide mapping of neuronal activation during the retrieval of object-place-context memory</i>
P05 - Jihane Balla - CNR IN Cagliari	<i>Investigating Carbamazepine's interaction with the BDNF-TrkB system in RA-Differentiated SH-SY5Y Cells</i>
P06 - Laura Doro - University of Sassari	<i>Effects of (R)-Linalool on endothelial dysfunction induced by lipopolysaccharide; study on female and male human umbilical vein endothelial cells</i>

Neurodevelopmental disorders

P07 - Camilla Paolini - CNR IN Milano	<i>Oxytocin promotes blood-brain barrier formation in a mouse model of autism spectrum disorder and schizophrenia</i>
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Neuropharmacology

P08 - Claudia Sagheddu - University of Cagliari	<i>Age and sex difference in cannabidiol efficacy to mitigate acutely induced epileptic seizures in a mouse model</i>
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Neurodegenerative diseases and bioenergetics

P09 - Rafaela Mostallino - University of Cagliari	<i>Evaluating the effect of immune activation in the 3xTg mouse model of Alzheimer's disease</i>
P10 - Michela Etzi - University of Cagliari	<i>Repurposing pomalidomide as a neuroprotective drug in an alpha-synuclein-based model of Parkinson's disease</i>
P11 - Khosro Aminzadeh - University of Cagliari	<i>Monothio-pomalidomide (MT-POM) as a neuroprotective drug in an alpha-synuclein-based model of Parkinson's disease</i>
P12 - Jacopo Marongiu - University of Cagliari	<i>Role of the medial prefrontal cortex, striatum and nucleus accumbens in the emission of 50-kHz ultrasonic vocalizations in hemiparkinsonian rats treated with dopaminergic drugs</i>
P13 - Lucia Iannotta - CNR IN Milano	<i>Untangling VPS13D function(s) in health and disease</i>
P14 - Fausto Caruana - CNR IN Parma	<i>EEG beta de-synchronization signs the efficacy of a rehabilitation treatment for speech impairment in Parkinson's disease population</i>

Gut-brain axis

P15 - Martina Gabrielli - CNR IN Milano	<i>Gut Extracellular Vesicles as mediators of gut-to-brain communication in Epilepsy</i>
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Modeling Development and Disease

P16 - Angelo Iannielli - CNR IN Milano	<i>Generation of a fully human pluripotent stem cell-derived model of blood-brain barrier for disease modeling</i>
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The mirror neuron system

P17 - Arturo Nuara - CNR IN Parma	<i>Unveiling the neuronal substrate of MEP facilitation by action observation: insights from transcranial magnetic stimulation in non-human primates</i>
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Physiology, plasticity and pathological conditions of the visual system

P18 - Gabriele Sansevero - CNR IN Pisa	<i>Saving neurons: sparing effect in radiotherapy</i>
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RNA therapeutics targeting CNS disorders

P19 - Chiara Elia - CNR IN Milano	<i>Integration of different approaches for establishing a multiscale functional validation platform (MULTIVAL) for RNA-based drugs in the CNS</i>
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POSTER SESSION 2

WEDNESDAY 2nd OCT

Neurobiology of addiction and behaviour

P20 - Giuseppe Talani - CNR IN Cagliari	Sex-specific changes in voluntary alcohol consumption and nucleus accumbens synaptic plasticity in C57BL/6J mice exposed to neonatal maternal separation
P21 - Paola Maccioni - CNR IN Cagliari	Suppressing effects of the naturally occurring GABAB receptor agonist, isoliquiritigenin, on operant alcohol-motivated behaviors in alcohol-preferring rats
P22 - Cristina Cadoni - CNR IN Cagliari	Role of genetic background in the effect of adolescent nicotine exposure on alcohol drinking behavior and cognitive function
P23 - Carlotta Siddi - CNR IN Cagliari	The humanized ACE2 receptor determines differences in the anxiety profile in the transgenic CAG-hACE2 female mice. A pilot study
P24 - Roberta Puliga - University of Cagliari	Binge-like administration of alcohol mixed with energy drinks to male adolescent rats severely impacts on mesocortical dopaminergic function in adulthood
P25 - Ilaria di Iasio - CNR IN Milano	The role of Protocadherin 9 in depression and anxiety: evidence from a knockout mouse model

Neurodegenerative diseases and bioenergetics

P26 - Fiorella Tonello - CNR IN Padova	Human PLA2 IIA interacts with LRP1 via disulfide exchange on the surface of RAW264.7 cells
P27 - Letizia Mariotti - CNR IN Padova	Neuron-astrocyte interactions in spatial memory and their implications in Alzheimer's Disease
P28 - Annalisa Pinna - CNR IN Cagliari	Evaluating the MPTP plus Probenecid mouse Model for Early -Stage Parkinson's Disease: Correlation between Biochemical and Imaging Markers
P29 - Andrea Mastio - University of Cagliari	Impairment of gustatory processing in a mouse model of Alzheimer's disease

Physiopathology of the synapse

P30 - Sara Riccardi - CNR IN Milano	Pcdh19 deletion in PV neurons is associated with altered social cognition and neuronal functions
P31 - Ibrahim Raya - CNR IN Milano	Dissecting the molecular function of KLHL17 in the pathophysiology of West Syndrome
P32 - Benedetta Valentino - CNR IN Milano	Assessing the consequences of AMPARs defective transport in an AP4 deficiency mouse model

Computation tools in behavioral neuroscience

P33 - Viviana Canicatti - CNR IN Pisa	Automated assessment of the mouse body-language reveals pervasive behavioral disruption in a two-hit model of bipolar disorder
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Epidemiology of aging and biostatistics

P34 - Antonio Di Carlo - CNR IN Pisa	Role of biological markers for the risk stratification of cerebral bleeding and ischemic stroke in patients with atrial fibrillation on oral anticoagulants for primary or secondary prevention of ischemic stroke: the Strat-AF2 Study. Preliminary results
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Cerebrovascular diseases

P35 - Giacomo Vecchieschi - CNR IN Padova	Development of the water grasping task to detect behavioral motor deficits in a mouse model of stroke
P36 - Giulia Craig - CNR IN Pisa	A novel model of light-induced middle cerebral artery occlusion and recanalization in mice
P37 - Matteo D'Urso - CNR IN Padova	The role of microglia in the neuroinflammatory response following perinatal stroke

Pollution and Mental Health

P38- Liana Fattore - CNR IN Cagliari	Psychiatric disorders and Comorbidities caused by pollution in the Mediterranean area
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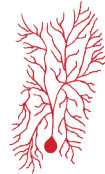


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