



1° Congresso C4Neuro: LE NEUROSCIENZE DEL DOMANI



24-25 Ottobre 2024

Area della Ricerca di Palermo,
via Ugo La Malfa 153 Palermo.

Program 24 ottobre 2024

8.45-9.45: Registration

9.45-10.15: Opening of works: *Pasquale Picone; Domenico Nuzzo; Maria Vincenza Catania*

Institutional Welcomes:

- Prof. Giovanni Maga, Direttore del Dipartimento di Scienze Biomediche (DBS).
- Prof. Andrea De Gaetano, Direttore dell'Istituto per la Ricerca e l'Innovazione Biomedica (IRIB).
- Prof. Roberto Lagalla, Sindaco di Palermo.
- Prof.ssa Valentina Di Felice, Coordinatore del Dottorato in Neuroscienza Università degli studi di Palermo.

10.15-11.15: *Session 1. Autism: Mechanisms and Neural Networks*

Chair: Giovanni Pioggia IRIB-CNR (Messina)

- Walter Arancio: Transcripts derived from AmnSINE1 repetitive sequences are depleted in the cortex of autism spectrum disorder patients. IRIB-CNR (Palermo).
- Michela Spatuzza: Cellular response to oxidative stress and senescence in Fragile X syndrome: an explorative *in vitro* and *ex vivo* study. IRIB-CNR (Catania).
- Giuseppe Giglia: The semantics of space: exploring semantic grounding in the right posterior parietal cortex. BIND-UniPA.
- Giuseppe Zappalà: Brain Networks and cognition: Autistic Spectrum Disorders and ADHD. Neurologia Cognitiva, CDCD Alzheimer- Ospedale Garibaldi, Catania.

11.15-11.45: **Coffee Break**

11.45-12.30: *Session 2. Neuromuscular Diseases*

Chair: Valentina Di Liberto BIND-UniPA

- Elia Di Schiavi: Identification of neuroprotective genes and drugs using *C. elegans* models of neurodegenerative diseases. IBBR-CNR (Napoli)
- Raffaele Conte: E-health in neuromuscular diseases: the InGene 2.0 experience. IFC-CNR (Pisa).
- Nunzio Vicario: Unveiling the potential of PARP1 and Connexin 43 modulation in neuropathic pain models. Department of Biomedical and Biotechnological Sciences (Biometec) UniCT



12.30-13.30: **Session 3. From Organ On Chip to Nanotechnologies**

Chair: Elena Lo Presti IRIB-CNR (Palermo)

- Fabio Salvatore Palumbo: Glutathione-extended waterborne polyurethane nanoparticles: a promising platform for targeted brain delivery. STEBICEF-UniPA
- Pasquale Picone: Myelin nanovesicles for the treatment of neurodegenerative diseases. IRIB-CNR (Palermo)
- Francesco Lopresti: Rapid prototyping of advanced Brain-on-Chip platforms: Improving the predictive validity in neurodegenerative research. Department of Engineering-UniPA
- Francesca Gervaso: Organ-on-chip technology for the study of neurodegenerative disorders. Nanotec-CNR (Lecce)

13.30-14.30: **Lunch** and tasting of “**Neuro-Enhancing Gelato**” by vegan Chef Maurizio Valguarnera

14.30-15.30: **Session 4. Receptors and Neurodegeneration**

Chair: Maria Vincenza Catania IRIB-CNR (Catania)

- Miriana Scordino: Neuroprotective and antioxidant properties of Oxotremorine-M, a non-selective muscarinic acetylcholine receptor agonist, in cellular and animal models of Alzheimer disease. BIND-UniPA
- Viviana Triaca: CSFR1 inhibition rescues LTP in hippocampal slices via microglia-driven clearance of amyloid from glutamatergic terminals. IBBC-CNR (Roma)
- Giuditta Gambino: Guanosine Regulation of Potassium Currents in SH-SY5Y Cells: Exploring the Role of Adenosine Receptors. BIND-UniPA
- Monica Frinchi: Selective metabotropic glutamate receptor 3 positive allosteric modulator as new potential therapeutic agent in experimental models of parkinsonism: first *in vitro* and *in vivo* evidence. BIND-UniPA

15.30-16.00 **Session 5. Multiple Sclerosis**

Chair: Pasquale Picone IRIB-CNR (Palermo)

- Patrizia Cancemi: Proteomic profiling of cerebrospinal fluid in multiple sclerosis: discovery of new candidate biomarkers. STEBICEF-UniPA
- Fabiola Vaglica: Exploring Matrix Metalloproteinases as Diagnostic Biomarkers in Multiple Sclerosis: A Comparative Study of Biological Fluids. STEBICEF-UniPA

16.00-17.00 **Poster Session & Cocktail Party**

20.30: **Social Dinner:** Palazzo Asmundo Via Pietro Novelli, 3 - Palermo





Program 25 ottobre 2024

9.30-10.00: *Lectio magistralis* Giorgio Carmignoto: Cooperation and Competition in Scientific Research. IN-CNR and Dip. Scienze Biomediche università di Padova.

10.00-11.00: *Session 1. Nutraceuticals and Neurodegeneration*

Chair: Domenico Nuzzo IRIB-CNR (Palermo)

- Rosalia Pellitteri: Anti-inflammatory activity of polyunsaturated fatty acids in olfactory glial cells exposed to lipopolysaccharide-induced stress. IRIB-CNR (Palermo)
- Nicolò Ricciardi: Golden Tomato Juice Mitigates Cognitive and Affective Deficits in Metabolic Syndrome: The Role of Leptin and Neurotrophic Signaling pathways. BIND-UniPA
- Antonella Girgenti: Natural molecules in Neurodegenerative Diseases. IRIB-CNR (Palermo)
- Letizia Paladino: NF- κ B regulation and Chaperone System mediate restorative effects of the probiotic *Lactobacillus fermentum* LF31 in the small intestine and cerebellum of mice with ethanol-induced damage. BIND-UniPA

11.00-11.30: **Coffee Break**

11.30-12.30: *Session 2. Brain Cancer*

Chair: Giuseppa Mudò BIND-UniPA

- Sabrina Battista: The HMGA1/NUMB axis modulates the response of glioblastoma cancer stem cells to glucose and insulin. IEOS-CNR (Napoli)
- Viola Donati: A potential therapeutic approach for glioblastoma treatment targeting connexin hemichannels. IBBC-CNR (Roma)
- Giuseppa D'amico: Mimicking Glioblastoma multiforme microanatomical architecture via patient-derived 3D spheroids for identification of new therapeutic targets. BIND-UniPA
- Giovanni Marfia: Brain cancer and precision: from biomarkers to targeted therapy. Ospedale Maggiore Policlinico (Milano)

12.30-13:30: *Session 2. From Technology Transfer to Pharmaceutical Regulatory Issues*

Chair: Paolo Colombo IRIB-CNR (Palermo)

- Gianluca Sferrazza: Regulatory Science for Biomedical Research valorization. DBS-CNR (Roma)
- Barbara Angelini: Technology Transfer at CNR: Collaboration with the Productive Sector for Funding Attraction. UVR-CNR (Roma)
- Paolo De Stefanis - Fundraising strategies for innovations in neuroscience. Founder and CEO at Day One (Roma)
- Giovanni Marfia: Brain and space: aerospace medicine and dual-use technology development. Ufficiale medico del Corpo Sanitario dell'Aeronautica Militare (Milano)

13.30-15.00: **Conclusive Lunch & Poster Session**



Comitato scientifico
Pasquale Picone; Domenico Nuzzo;
Maria Vincenza Catania



Segreteria organizzativa

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