

**14th
15th
16th** **NOVEMBER**
2019
MILAN · ITALY

2nd BRAINSTORMING RESEARCH ASSEMBLY
FOR YOUNG NEUROSCIENTISTS

«Mario Negri» Institute Auditorium
Via Mario Negri 2, Milan, Italy
www.braynconference.com

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Rossella Galli San Raffaele Scientific Institute, Milan (Italy)

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Maria Velasco Trinity College, Dublin (Ireland)

13:30 Registration

14:30 Opening Ceremony | **GIOVANNI FERRARA**

14:40 Lecture | **JEAN-MICHEL CIONI** Axonal protein synthesis in health and disease: a new role for endosomes. (Chairwoman: B. Bettegazzi)

15:10 Lecture | **DANIEL JAQUE GARCIA** Near infrared (NIR)-II imaging for brain studies. (Chairman: J.L. Cañavate)

SESSION 1 - NEURAL PLASTICITY • ORAL COMMUNICATIONS (Supported by European Society of Neurochemistry, ESN)

Chairwomen: E. Boda, G. Calabrese, R.C. Paolicelli, E. Conti

15:40 **Roberta Schellino** Human medium spiny neuron progenitors grafted into an HD rat model early integrate into the host circuits, express striatal markers and support functional recovery.

15:55 **Martina Lorenzati** Axo-glial interplay in oligodendrocyte specification and myelination: role of JNK1.

16:10 **Giulia D'Arrigo** Astrocytes-derived Extracellular Vesicles in motion at the neuron surface.

BraYn Educational Symposia 1

Chairpersons: S. Amoretti, J.L. Cañavate, M. Velasco

16:25 **Luca Mazzitelli** (Carlo Erba Reagents) | *Biology at true resolution with 10X Genomics.*

16:45 **Francesca Galbiati** (Charles River Laboratories) | *Essential Tips for new Mouse Researchers.*

17:05 **Cristina Spalletti** *Robotic Rehabilitation and neuromodulation after stroke: novel approaches in a mouse model.*

17:20 **Valentina Cerrato** *The ontogenesis of astrocytes diversity: a remarkably orderly process necessary for the correct cerebellar development and functioning.*

17:35 **Matteo Pedrazzoli** *Glucocorticoid receptor modulation alters dendritic spine density and microglia activation in the hippocampus of 3xTg-AD mice.*

17:50-20:00: Poster Session 1 • Coffee break mini 1

BraYn Educational Workshop Session 1 (Conference Hall B)

17:50 **Stefano Fiorina** (AB Sciex) | *Metabolomics & Lipidomics.*

18:40 **Marilisa Marinelli, Claudio Comunian** (Biorad) | *Extracellular Vesicles in Neurological Disease.*

19:15 **Francesco Biancardi** (Carl Zeiss) | *Beyond the Computed Tomography: X-Ray Microscopy in Life Science.*

9:00 Lecture | **MARCO PRINZ** *Myeloid cell diversity in the central nervous system.* (Chairwoman: R.C. Paolicelli)

SESSION 2 - NEUROINFLAMMATION • ORAL COMMUNICATIONS

Chairpersons: S. Angiari, E. Volpe, A. Musella, I. Prada, S. Raffaele

9:30 **Placido Illiano** *Astroglial TNFR2 regulates learning, memory and anxiety.*

9:45 **Laura Brambilla** *Real Time Quaking Induced Conversion assay as innovative tool to investigate neurodegeneration in Multiple Sclerosis.*

10:00 **Alessandro Leuti** *Resolution of inflammation is impaired in multiple sclerosis and entails a loss of pro-resolving features of monocytes/macrophages.*

BraYn Educational Symposia 2

Chairpersons: S. Amoretti, J.L. Cañavate, M. Velasco

10:15 **Angela Guerra Alvarez** (Biogen) | *Pioneering the future of Neuroscience.*

10:35 **Zsolt Iván** (Femtonics) | *Outstanding benefits of breakthrough innovations of 3D Acousto-Optic technology in Neuroscience.*

10:50 **Valentina Serpieri** *Agenesis of the putamen and globus pallidus caused by recessive mutations in the homeobox gene GSX2.*

11:05 **Matteo Carlo Kaleva Ciccarese** *Role of lipid mediators in the aging process.*

11:20 **Morris Losurdo** *Preconditioned Bone Marrow Mesenchymal Stem Cell-derived Extracellular Vesicles Exert Immunomodulatory Effects in a model of Alzheimer's Disease.*

11:35 Workshop | **CHIARA GABBI** *How to write a succesful grant and/or a fellowship application.* (Chairwoman: M. Romeo)

12:00-14:00: Lunch box with Poster Session 2

BraYn Educational Workshop Session 2 (Conference Hall B)

12:00 **Elisa Zuffi** (Miltenyi Biotec) | *Novel approach to study adult neural cells in vitro.*

13:00 **Pietro Veglianese** (Beckman Coulter) | *Modulation of microglial cells by drug-nanovectors in spinal cord injury.*

13:30 **Paola Marcon** (Biogen) | *The long journey: from the bench to the bedside.*

14:00 Lecture | **ROSSELLA GALLI** *Leveraging brain tumor stem cells for disease modeling and therapy improvement.* (Chairwoman: B. Bettegazzi)

SESSION 3 - NEURO-ONCOLOGY • ORAL COMMUNICATIONS

Chairpersons: G. D'Alessandro, M. Tamborini, R. Azzarelli

- 14:30** **Massimiliano Del Bene** *Clinical Significance of Extracellular Vesicles in Plasma from Glioblastoma Patients.*
- 14:45** **Paola Infante** *Oncogenic role of the aminopeptidase ERAP1 in Hedgehog-dependent cancer.*
- 15:00** **Silvia Valtorta** *Combined Positron Emission Tomography imaging approach for identification of new potential biomarkers for treatment response in glioma models.*

BraYn Educational Symposium 3

Chairpersons: S. Amoretti, J.L. Cañavate, M. Velasco

- 15:15** **Philippe Trochet** (Fujifilm) | *See the Whole Mouse Brain in vivo and in Real-time*
- 15:30** **Prospero Civita** *Towards a 3D all human in vitro model of glioblastoma multiforme for drug screening: glioblastoma and astrocyte interactions?*
- 15:45** **Carmela Serpe** *Microglia-Derived Microvesicles Affect Microglia Phenotype in Glioma.*
- 16:00** **Elena Parmigiani** *Notch signaling controls glioma proliferation and shapes the tumor microenvironment.*

16:15-18:30: Coffee break with **Poster Session 3**
“Lost in the Protocol” session

- 18:30** Lecture | **PIERRE GRESSENS** *Neuroinflammation and encephalopathy of prematurity.* (Chairman: L. Ramenghi)

SESSION 4 - PERINATAL NEUROLOGY • ORAL COMMUNICATIONS

(Supported by EuBrain)

Chairpersons: G. Ferrara, A. Carta, L. Ramenghi, M.S. Paladini

- 19:00** **Eridan Rocha-Ferreira** *Repurpose of exendin-4 for the treatment of neonatal brain injury.*
- 19:15** **Sara De Crescenzo** *Growth parameters and minor brain lesions in very low birth weight (VLBW) newborns as prognostic factors of negative neurodevelopmental outcome at two and three years of age.*
- 19:30** **Cristiana Pelorosso** *A novel double-hit mechanism involving different genes of the MTOR pathway in hemimegalencephaly with intractable childhood epilepsy.*

20:30 BraYn Social Dinner

- 9:00** Lecture | **SONIA GAREL** *Microglia at the crossroads of cortical wiring and environmental signals.* (Chairwoman: R.C. Paolicelli)

SESSION 5 - NEURODEGENERATION • ORAL COMMUNICATIONS

Chairpersons: G. Nardo, B. Bettegazzi, M. Medelin, G. Zanetti

- 9:30** **Bianca Barzaghini** *Therapeutic effect of neural progenitor cells expanded in the 3D nano-engineered Nichoid substrate in a Parkinson's disease preclinical model.*
- 9:45** **Morgane Rouault** *Incorporation of spatial mapping and confirmation of gene signatures by a multiplex in situ hybridization technology into single cell RNA sequencing workflows.*
- 10:00** **Federica Campanelli** *Effects of chronic continuous theta-burst stimulation (cTBS) on bidirectional striatal synaptic plasticity in a model of Parkinson's disease and L-Dopa- induced dyskinesia.*
- 10:15** **Loredana Leggio** *Astrocyte-derived extracellular vesicles and cell-to-cell communication in the nigrostriatal regions: implications for dopaminergic neuroprotection.*

BraYn Educational Symposia 4

Chairpersons: S. Amoretti, J.L. Cañavate, M. Velasco

- 10:30** **Gennaro Pagano** (Roche) | *Translational medicine journey in neurodegeneration: focus on alpha-synuclein.*
- 10:50** **Gianluca Rotta** (BD Biosciences Italia) | *Three intersections between flow cytometry and multiple sclerosis.*
- 11:10** **Maria Velasco-Estevéz** *Mechanosensation: a new horizon in the regulation of myelination?*
- 11:25** **Cristiano Carlomagno** *Raman spectroscopy as biochemical “fingerprint” of biofluids for the investigation of neurodegenerative diseases.*
- 11:40** **Silvia Picciolini** *SPRi-based biosensor for the detection of circulating extracellular vesicles as biomarkers of neurological diseases.*
- 11:55** **Ludovico Cantuti-Castelvetri** *Defective cholesterol clearance limits remyelination in the aged central nervous system.*
- 12:10** Lecture | **GIACOMO RIZZOLATTI** *The mirror mechanism: a neural mechanism for understanding others.* (Chairman: G. Nardo)
- 12:40** Closing Remarks • BraYn Awards (Best Oral and Poster Presentation and BraYn Starting Grant)

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