

**14<sup>th</sup>** **NOVEMBER**  
**15<sup>th</sup>** **2019**  
**16<sup>th</sup>** **MILAN · ITALY**

**2<sup>nd</sup>** BRAINSTORMING RESEARCH ASSEMBLY  
FOR YOUNG NEUROSCIENTISTS

«Mario Negri» Institute Auditorium  
Via Mario Negri 2, Milan, Italy

[www.brainconference.com](http://www.brainconference.com)

## SCIENTIFIC COMMITTEE

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**Giovanni Ferrara** University of Genoa, IRCCS San Martino Hospital, Genoa (Italy)  
**Stefano Angiari** Trinity College, Dublin (Ireland)  
**Barbara Bettegazzi** San Raffaele Scientific Institute, Milan (Italy)  
**Enrica Boda** Neuroscience Institute «Cavalieri Ottolenghi»,  
Dept. of Neuroscience, University of Turin (Italy)  
**Giovanna Calabrese** University of Catania (Italy)  
**Giuseppina D'Alessandro** «Sapienza» University of Rome (Italy)  
**Manuela Medelin** University of Verona (Italy)  
**Alessandra Musella** IRCCS San Raffaele Pisana, Rome (Italy)  
**Giovanni Nardo** «Mario Negri» Institute, Milan (Italy)  
**Rosa C. Paolicelli** University of Lausanne (Switzerland)  
**Ilaria Prada** Italian National Research Council, Milan (Italy)  
**Matteo Tamborini** Humanitas Research Hospital, Rozzano (Italy)  
**Elisabetta Volpe** Santa Lucia Foundation Scientific Institute, Rome (Italy)

## MENTORS

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**Mariapia Abbracchio** University of Milan (Italy)  
**Michela Matteoli** Humanitas Research Hospital, Rozzano (Italy)  
**Luca Ramenghi** IRCCS «Giannina Gaslini» Institute, Genoa (Italy)  
**Giuseppe Remuzzi** «Mario Negri» Institute, Milan (Italy)  
**Antonio Uccelli** IRCCS San Martino Hospital, Genoa (Italy)

## INVITED SPEAKERS

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**Jean-Michel Cioni** San Raffaele Scientific Institute, Milan (Italy)  
**Chiara Gabbi** Humanitas Medical Care, Milan (Italy)  
**Rossella Galli** San Raffaele Scientific Institute, Milan (Italy)  
**Sonia Garel** IBENS, Paris (France)  
**Pierre Gressens** INSERM, Paris (France)  
**Daniel Jaque Garcia** Universidad Autónoma de Madrid (UAM), Madrid (Spain)  
**Marco Prinz** University of Freiburg (Germany)  
**Giacomo Rizzolatti** University of Parma (Italy)

## SCIENTIFIC SECRETARIAT

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**Jose Lifante Cañavate** Universidad Autónoma de Madrid (UAM), Madrid (Spain)  
**Valentina Petrosino** University of Genoa, IRCCS San Martino Hospital, Genoa (Italy)  
**Margherita Romeo** «Mario Negri» Institute, Milan (Italy)  
**Maria Chiara Trolese** «Mario Negri» Institute, Milan (Italy)

## ORGANIZING SECRETARIAT

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### **Symposia Organizzazione Congressi Srl**

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## BRAYNIACS

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**Stefano Amoretti** University of Pisa (Italy)  
**Alessandra Carta** University of Sassari (Italy);  
Bambino Gesù Children's Hospital, Rome (Italy)  
**Giulia D'Arrigo** SISSA, Trieste (Italy);  
Neuroscience Institute - National Research Council of Italy, Milan (Italy)  
**Mattia Di Paolo** University of l'Aquila (Italy)  
**Pellegrino Lippiello** University of Naples (Italy)  
**Samuele Negro** University of Padova (Italy)  
**Simona Paglia** University of Bologna (Italy)  
**Elisabetta Stanzani** Humanitas Research Hospital, Rozzano (Italy);  
Fondazione Umberto Veronesi, Milan (Italy)  
**Eleonora Vannini** Neuroscience Institute - National Research Council of Italy, Pisa  
(Italy); Fondazione Umberto Veronesi, Milan (Italy)  
**Maria Velasco** Trinity College, Dublin (Ireland)

# NOVEMBER 14<sup>th</sup>

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**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-glia 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** (Bio-Rad) | *Extracellular Vesicles in Neurological Disease.*

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

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# NOVEMBER 15<sup>th</sup>

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**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 Ciccacese** *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. Bettgazzi)

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### 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 VisualSonics) | *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

# NOVEMBER 16<sup>th</sup>

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**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.*

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**11:10** **Maria Velasco-Estevez** *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.*

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**12:10** Lecture | **GIACOMO RIZZOLATTI** *The mirror mechanism: a neural mechanism for understanding others.* (Chairman: G. Nardo)

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**12:40** Closing Remarks • BraYn Awards (Best Oral and Poster Presentation and BraYn Starting Grant)

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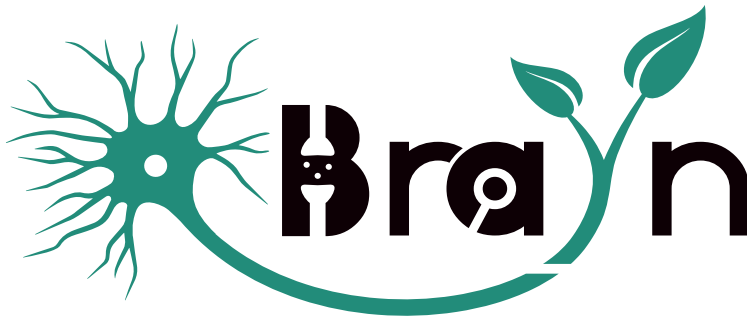
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