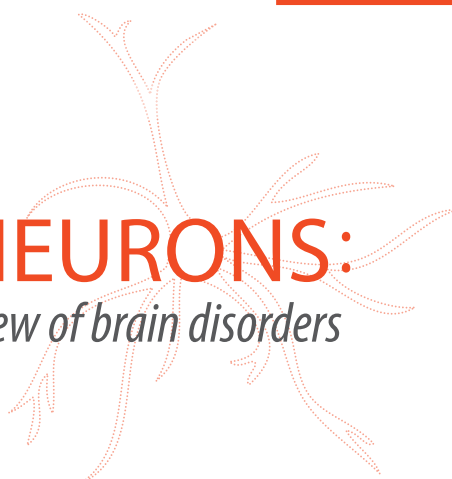


**II EDITION**

**MORE THAN NEURONS:**

*toward a less neuronocentric view of brain disorders*

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



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**THURSDAY, NOVEMBER 29<sup>TH</sup>**

10.00 Onsite registration and badge distribution

13.30 Welcome & Introduction

14.00 **LECTURE** - *Introduced by M.A. Sortino (Catania, Italy)*  
"A role for leukocyte trafficking in Alzheimer's disease"  
*Gabriela Constantin (Verona, Italy)*

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**SESSION 1 (14.45-19.00)**

Focus on neurodegeneration and neuroinflammation

*Chaired by: C. Ghelardini (Firenze, Italy), B. Marchetti (Catania, Italy)*

*A. Pittaluga (Genova, Italy)*

14.45 Microglia-mediated synapse loss in the pathogenesis of neurodegeneration - *Rosa Paolicelli (Zurich, Switzerland)*

15.15 NR4As impairment in Multiple Sclerosis patients: moving from blood to central nervous system - *Francesca Montarolo (Torino, Italy)*

15.30 Microglia support neurons in the earliest phases of A $\beta$ -induced toxicity  
*Sara Merlo (Catania, Italy)*

15.45 Proteomics of tyrosine-nitrated proteins in T cells from Alzheimer's disease patients - *Giulia Abate (Brescia, Italy)*

16.00 Patient-specific iPSC-derived astrocytes contribute to non-cell autonomous neurodegeneration in Parkinson's disease  
*Meritxell Pons-Espinal (Barcelona, Spain)*

16.15 Impact of the chemokine Ccl3 on astrocyte-derived exosomes in Parkinson's disease - *Loredana Leggio (Catania, Italy)*

16.30 COFFEE BREAK

17.00 Genetic deletion of Rhes increases the susceptibility to the neuroinflammatory effects of 3,4 methylenedioxyamphetamine (MDMA) - *Micaela Morelli (Cagliari, Italy)*

17.30 Contrasting effect of the immune response in the central and peripheral nervous system on amyotrophic lateral sclerosis disease progression - *Caterina Bendotti (Milano, Italy)*

18.00 Ca<sup>2+</sup>-activated K<sup>+</sup> channels modulate microglia affecting motor neuron survival in hSOD1G93A mice - *Germana Coccozza (Rome, Italy)*

18.15 Cross-talk between microglia and oligodendroglial progenitors in cerebral ischemia: implications for brain repair  
*Marta Fumagalli (Milano and Urbino, Italy)*

18.30 Striatal astrocytes: functional evidence of A2A-D2 heterodimerization and modulation of glutamate release - *Chiara Cervetto (Genova, Italy)*

18.45 General discussion

19.00 **LECTURE** - *Introduced by C. Riccardi (Perugia, Italy)*  
"Astrocytes in Neuroinflammatory Disorders"  
*Cynthia Farina (Milano, Italy)*

*This lecture has been made possible*

*through an unrestricted grant from*  **NOVARTIS**

19.45 WELCOME RECEPTION

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**SESSION 2 (09.00-11.55)**

MTN in neurodevelopmental and neuropsychiatric disorders

Chaired by: A. Buffo (Torino, Italy), M. Memo (Brescia, Italy)

- 09.00 The microglial innate immune receptor TREM2 is required for synapse elimination and normal brain connectivity - Raffaella Morini (Milano, Italy)
- 09.30 Perinatal oxytocin rescues developmental trajectories in a mouse model of 22q11.2 microdeletion modulating the blood-cerebrospinal fluid-barrier permeability - Francesco Papaleo (Genova, Italy)
- 10.00 Control of neuronal protein expression and functions by astroglial calcineurin - Dmitry Lim (Novara, Italy)
- 10.30 COFFEE BREAK
- 10.55 Cannabinoid treatment modulates neuroinflammation and behavioral abnormalities in a rat model of autism-like behaviour  
Erica Zamberletti (Busto Arsizio, Italy)
- 11.10 Are oligodendrocyte progenitors all born equal? A lesson from a microcephaly model - Enrica Boda (Torino, Italy)
- 11.25 Stimulation of adenosine A2A receptor restores cell functions and differentiation in a pharmacological model of Niemann-Pick type C oligodendrocytes - Chiara De Nuccio (Rome, Italy)
- 11.40 Autoimmune synaptopathies: roles of antibodies targeting neurotransmitter receptors and complement  
Guendalina Olivero (Genova, Italy)
- 11.55 **LECTURE - Introduced by D. Lim (Novara, Italy)**  
"Principles of astroglia pathology" - Alexej Verkhratsky (Manchester, UK)
- 12.40 LUNCH
- 13.40 POSTER SESSION
- 15.30 **LECTURE - Introduced by P.L. Canonico (Novara, Italy)**  
"Cognitive dysfunction in diabetes: what are the targets for intervention?" - Geert Jan Biessels (Utrecht, Netherlands)

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**SESSION 3 (16.15-19.00)**

MTN in metabolic disorders, pain, injury and neuroplasticity

Chaired by: M. Collino (Torino, Italy), C. Patrone (Stockholm, Sweden)

- 16.15 Spinal microglia drives morphine hyperalgesia by disinhibiting nociceptive pathways - Francesco Maria Ferrini (Torino, Italy)
- 16.40 VEGF-A as a pain mediator: new evidence from stem cell secretome  
Lorenzo Di Cesare Mannelli (Firenze, Italy)
- 17.05 Dimethyl fumarate reduces tactile allodynia in a gender dependent manner in two different models of peripheral neuropathic pain  
Livio Luongo (Napoli, Italy)
- 17.20 COFFEE BREAK
- 17.45 Type 2 diabetes impairs odour detection, olfactory memory and olfactory neuroplasticity; effects partly reversed by DPP-4 inhibition  
Grazyna Lietzau (Stockholm, Sweden)
- 18.00 Elucidating the regulation of astrocyte metabolism in physioxia and inflammation - Katia Monsorno (Lübeck, Germany and Trento, Italy)
- 18.15 Neurogenic activation and lineage progression of striatal astrocytes following excitotoxic lesion - Giulia Nato (Torino, Italy)
- 18.30 Environmental stimuli shape microglial plasticity in glioma  
Stefano Garofalo (Rome, Italy)
- 18.45 ELOVL5 plays an essential role in myelin formation  
Ilaria Balbo (Torino, Italy)

08.45

**LECTURE - Introduced by N. Brunello (Modena, Italy)**

"Non neuronal cells in epilepsy: pathophysiological role and new therapeutic opportunities" - Annamaria Vezzani (Milano, Italy)

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**SESSION 4 (09.30-12.25)**

Novel approaches in research and therapy for neurological disorders

Chaired by: C. Bendotti (Milano, Italy), M. Morelli (Cagliari, Italy), A. Vezzani (Milano, Italy)

- 09.30 Application of pharmacological chaperones for the treatment of CNS disorders: lessons learned from rare diseases  
Ken Valenzano (Cranbury, NJ, USA)
- 10.00 Development of SOD1 ASO for treatment of SOD1 ALS and testing additional tools for future ALS trials - Toby Ferguson (Cambridge, MA, USA)
- 10.30 Bidirectional modulation of traumatic memory by hippocampal astrocytes manipulation - Inbal Goshen (Jerusalem, Israel)
- 11.00 COFFEE BREAK
- 11.25 Genome-wide analyses of regulatory regions and transcripts in hiPSC-derived neural stem cells to define their safety and efficacy in cell therapy approaches for neurological disorders  
Vasco Meneghini (Paris, France)
- 11.40 The effect of the DPP-4 inhibitor linagliptin to improve functional outcome after stroke is mediated by the CXCR4/SDF-1 $\alpha$  pathway  
Fausto Chiazza (Torino, Italy and Stockholm, Sweden)
- 11.55 The GPR17 receptor as a new potential pharmacological target to restore oligodendroglial dysfunction in amyotrophic lateral sclerosis  
Elisabetta Bonfanti (Milano, Italy)
- 12.10 Effects of miRNAs shuttled by exosomes derived from IFN- $\gamma$ -primed mesenchymal stem cells on primary astrocyte cultures from adult SOD1G93A mouse model of amyotrophic lateral sclerosis  
Francesca Provenzano (Genova, Italy)
- 12.25 In vivo modulation of miR-125a-3p expression affects remyelination in the lysolecithin-induced demyelination - Davide Marangon (Milano, Italy)
- 12.40 Electro-convulsive shock enhances microglial motility in mouse hippocampus - Alberto Sepulveda-Rodriguez (Washington DC, USA)
- 12.55 LUNCH
- 14.00 **LECTURE - Introduced by G. Bonanno (Genova, Italy)**  
"Multimodal microglia modulation of neuronal function through extracellular vesicles" - Claudia Verderio (Milano, Italy)  
This lecture has been made possible through an unrestricted grant from 
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- SESSION 5 (14.45-16.30)**  
Neural stem cells, neuro-glia interactions, blood-brain barrier  
Chaired by: S. De Marchis (Torino, Italy), M. Grilli (Novara, Italy)
- 14.45 Age-dependent niche signals from the choroid plexus regulate adult neural stem cells - Violeta Silva Vargas (Basel, Switzerland)
- 15.15 Neuron-astroglia cell fate decision in the adult mouse hippocampal neurogenic niche is cell-intrinsically controlled by COUP-TFI in vivo  
Sara Bonzano (Torino, Italy)
- 15.30 In vitro modeling unravels neural progenitor/astrocyte dysfunctional homeostasis and crosstalk in Down Syndrome  
Maria Elisa Salvalai (Novara, Italy)
- 15.45 Pharmacological induction of oxidative metabolism in neural stem cells enhances neuronal maturation - Francesco Bifari (Milano, Italy)
- 16.00 Beta amyloid modifies PBMcs migration through the blood-brain-barrier - Simona Spampinato (Catania, Italy)
- Announcement of best poster award
- 16.30 Conclusions