



SOCIETÀ ITALIANA DI FARMACOLOGIA

Monothematic Meeting

Organized by the SIF Working Group on Neurodegenerative Diseases

Neuroinflammation and Neurodegeneration: Searching for New Pharmacologic Targets

July 16-17, 2026

Hotel Marechiaro, Gizzeria Lido (CZ)

Scientific Organizers

Giacinto Bagetta, Filippo Caraci, M. Tiziana Corasaniti, Elena Marcello, Luigi A. Morrone, Diana Amantea, Eugenio Donato Di Paola, Laura Rombolà, Rossella Russo, Annagrazia Adornetto, Damiana Scuteri, Ramona Stringhi, Giorgia Gullotta.

Scientific Secretariat

Damiana Scuteri (Catanzaro)

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Meeting Rational

Evidence in neurodegenerative diseases (i.e. Alzheimer's disease and Parkinson's disease, among others) implicates inflammation as central player in these processes other than a simple consequence of neurodegeneration. It is well established that protein aggregates, often encountered common pathological event in neurodegeneration, trigger neuroinflammation though, inflammation has been reported earlier than protein aggregation. Furthermore, genetic variations in CNS cells or immune cells may lead to neuroinflammation and protein deposition in susceptible population. Several signaling pathways and distinct CNS cells (e.g. astroglia and microglia) are implicated in the pathogenesis of neurodegeneration, although our knowledge is far from being satisfactory. This situation is reflected in the limited success of available treatments. Actually, halting or potentiating inflammatory signaling pathways implicated in neurodegeneration appear promising strategies for rationale control of neurodegenerative diseases. The organizers of this monothematic meeting welcome original contributions to the field by young scientists and bring together a group of internationally recognized scientist to guide a live discussion of the several themes proposed.

Programme

Thursday, July 16th

- 14:00-15:00 Registration and Poster Mounting
- 15:00-15:15 Opening remarks
Marco Pistis, Fabrizio Gardoni, Mariarosaria Bucci
- 15:15-15:30 Congress Presentation
Giacinto Bagetta, Filippo Caraci
- 15:30-16:30 Opening Lecture - Chair: Giacinto Bagetta

Astrocyte in central nervous system (CNS) physiology and diseases: a potential therapeutic target

Andrea Volterra

Wyss Center for Bio and Neuro Engineering, Campus Biotech, Geneva

16:30-16:45 Coffee Break

16:45-18:30 Oral Communication Session I

Chairs: Carla Ghelardini, Anna Pittaluga

- C1) Investigating Cellular Prion Protein (PrP^c) and TGF β 1-receptors interactions in microglia and neurons in response to tau oligomers
Giorgia Gullotta (Troina)
- C2) Astrocyte–Neuron Crosstalk in Neuroinflammation: Insights from Conditioned Media and Co-Culture Approaches
Chiara Cimetti (Bologna)
- C3) Deciphering the role of CAP2 in neuronal mitochondrial vulnerability in Alzheimer's Disease
Ramona Stringhi (Milano)
- C4) ASIC1a inhibition reverses A β -induced synaptic dysfunction and microglial alteration in an ex vivo model of Alzheimer's disease
Nunzia Maisto (Roma)
- C5) Targeting ADAM10 activity promotes hippocampal neurogenesis in Alzheimer's disease
Laura D'Andrea (Milano)
- C6) Tunneling Nanotubes and Mitochondrial Dynamics as Key Modulators of Neuroinflammation and Neurodegeneration
Silvia Carloni (Urbino)
- C7) Investigating presynaptic "prunability" and complement-mediated synapse loss in neuroinflammatory and demyelinating disease models: novel pharmacological targets for neuroprotection
Veronica Torre (Genova)
- C8) Development of an in vitro human brain-based 3D system to study the modulation of neuroinflammatory mechanisms and carnosine neuroprotective activity
Giuseppe Caruso (Roma)

18:30-19:00 Lifetime Achievement Award for Scientific and Academic Merit

Selection Committee: Giovanni Biggio, Achille P. Caputi, Giorgio A. Racagni

19:00 -20:30 Poster session

Chairs: Francesca Guida, Giuseppe Pignataro

- P1) KIF5A Protein Ameliorates Spinal Muscular Atrophy Phenotype In Mice Smn δ 7
Giusy Laudati (Napoli)

- P2) Tiresia: Digital Twin, Immunity, And Micro Rna In The Evolution Of Stroke In The Acute Phase
Mariassunta d'Onofrio (Napoli)
- P3) Oxygen-rich extra virgin olive oil (Ozoile Food) provides antioxidant and neuroprotective effects in a mouse model of ischemic stroke
Marco Parise (Rende, Cosenza)
- P4) Autophagy Modulation in a Murine Model of Cuprizone-Induced Demyelination
Elisabetta Benfatto (Rende, Cosenza)
- P5) Dysregulation of NEGR1 in the 3xTg Alzheimer's Mouse Model and in iPSC Derived Astrocytes
Martina Rubino (Bologna)
- P6) Modulation of Oxidative Stress and α -Synuclein Accumulation by Troxerutin in In Vitro Models of Parkinson's Disease
Deborah Mannino (Messina)
- P7) Alterations of monoaminergic transmission and tryptophan metabolism in early experimental autoimmune encephalomyelitis: relevance to neuroinflammation and anhedonic symptoms
Guendalina Olivero (Genova)
- P8) Brain Boosters from Cannabis: CBGA and CBDA Show Promise in Beating Memory Loss
Rebecca Limongelli (Napoli)
- P9) Effects of fluoxetine in an animal model of Traumatic Brain Injury: focus on TGF- β 1 signaling pathway
Sofia Varrasi (Catania)
- P10) Unraveling the Dual Signaling Pathway of Astrocytic Oxytocin Receptor
Elisa Farsetti (Genova)
- P11) Role of the cytokine eNAMPT in controlling neuroinflammation in Parkinson's Disease
Laura Cucinotta (Messina)
- P12) Biocompatibility and Toxicological Characterization of Bergamot Essential Oil for Future Neuroprotective Applications
Maria Loreta Libero (Chieti)
- P13) Targeting GLT-1 and PPAR- α : Dual Therapy with Ceftriaxone and PEA Alleviates Neuropathic Pain and Neuroinflammation in SNI Mice
Emanuele Di Martino (Napoli)
- P14) Allopregnanolone attenuates LPS-induced neuroinflammation in human microglial HMC3 cells: implications for catamenial epilepsy treatment
Emma Sartori (Monza)
- P15) A multi-target formulation of parthenolide, PEA and c-phycocyanin prevents microglia-mediate blood-brain barrier dysfunction in vitro
Leonardo Camillò (Pavia)
- P16) Modulating the microbiota-gut-brain axis via bergamot essential oil: a multi-target approach to mitigate systemic triggers of neuroinflammation

Enrica De Rasis (Rende, Cosenza)

- P17) CDK9 inhibition preserves blood-brain barrier integrity and attenuates microglial activation in an *in vitro* model of sepsis-induced neuroinflammation
Enrica Marzani (Torino)
- P18) FK506-mediated inhibition of astrocytic calcineurin counteracts A β 1-42-induced neuroinflammation via the TGF β 1 SMAD dependent signaling pathway
Giuseppe Costantino (Troina, Enna)
- P19) Targeting Carbonic Anhydrases as a Therapeutic Strategy to Prevent Memory Loss and Neuropathological Progression in Alzheimer's Disease
Alessia Costa (Firenze)
- P20) Lysine at the edge: dietary metabolism, blood-brain barrier permeation, and neuroinflammatory responses
Enrica Marzani (Torino)
- P21) Targeting CDK9 attenuates neuroinflammation and microglial activation in sepsis-associated encephalopathy
Gustavo Ferreira Alves (Torino)
- P22) Hypoxia accelerates microglial switch from a protective to a proinflammatory phenotype and compromises mitochondrial function in an *in vitro* model of Alzheimer's disease
Cristiana Lipari (Catania)
- P23) Targeting Carbonic Anhydrases as a Therapeutic Strategy to Prevent Memory Loss and Neuropathological Progression in Alzheimer's Disease
Gustavo Provensi (Firenze)
- P24) Short-term multi-polymer nanoplastic exposure along the gut-brain axis: neuroinflammatory and synaptic implications
Marianna Rizzo (Pavia)
- P25) Skin–Brain Axis Dysregulation in Diet-Induced Obesity and Amyloid- β Neurotoxicity: Implications for Neurodegenerative Biomarkers
Rossella Palmieri (Foggia)
- P26) Can the Mediterranean Diet Modulate Inflammation in Parkinson's Disease? Protocol, Design and Ongoing Assessment of the MED-PARK Randomized Controlled Trial
Elena Maria Pirovano (Varese)
- P27) Circulating miRNAs as Pharmacodynamic Biomarkers of Remote Ischemic Conditioning in Acute Ischemic Stroke: Translational Insights from the TRICS-9 Trial
Rohan Mahesh Patil (Napoli)
- P28) PIWIL2 Drives Stroke Progression via Modulation of NF- κ B Signaling
Rohan Mahesh Patil (Napoli)
- P29) piRNA–miRNA–mRNA regulatory triads in the post-ischemic brain: a genome-wide multi-layer analysis using TriadMap
Rohan Mahesh Patil (Napoli)

- P30) Transcription factor mRNA levels in Circulating CD4+ T cells Predict Phenoconversion to Established Neurodegeneration in Idiopathic REM Sleep Behavior Disorder
Monica Pinoli (Varese)

21:00 **Social Dinner**

Friday, July 17th

- 9:00-10:00 Keynote Lecture - Chair: Giovambattista De Sarro
The contribution of ion channel research to therapeutic innovation in epilepsy
Maurizio Taglialetela
Department of Neuroscience, University Federico II, Naples
- 10:00-10:25 Invited Lecture - Chair: Walter Balduini
Targeting microglia in epilepsy
Rita Citraro
Department of Health Science, University of Catanzaro
- 10:25-11.40 **Oral Communications Session II**
Chairs: Fabrizio Gardoni, Ramona Stringhi
- C9) Targeting PPAR- α to Modulate Neuroinflammation and Neurosteroidogenesis: A Novel Pharmacological Strategy with Implications for Neurodegenerative Disorders
Claudia Cristiano (Napoli)
- C10) CCR1 Antagonism by BX471 Mitigates Neuroinflammation and Nigrostriatal Degeneration in an MPTP-mouse model of Parkinson Disease
Ardizzone Alessio (Roma)
- C11) BACE1 as an innovative pharmacological targeting for counteracting Sepsis-Associated Encephalopathy
Gabrielle Delfrate (Torino)
- C12) Serotonergic modulation of neuroinflammatory pathways as a potential target relevant to neurodegenerative disorders: sex-dependent effects of psilocybin microdosing
Sofia Nasini (Padova)
- C13) Ultramicronized palmitoylethanolamide targets neuroinflammation to enhance analgesia and delay opioid tolerance
Laura Micheli (Firenze)
- C14) The Dual Role of REST in ALS: Therapeutic Target and Prognostic Biomarker
Luigi Formisano (Napoli)
- 11:40-12:00 **Coffee Break**
- 12:00-12:25 Invited Lecture - Chair: Pierluigi Nicotera
Neuropsychiatric challenges in neurodegenerative diseases: NanoBEO first in a class tool in the armamentarium

Damiana Scuteri
Department of Health Science, University of Catanzaro

12:25-13:40 **Oral Communications Session III**

Chairs: Diana Amantea, Luigi A. Morrone

- C15) Systemic immune activation in early adulthood induces long-term synaptic, circuit and neuromodulatory dysfunction in a transgenic mouse model of Alzheimer's disease
Andrea Mastio (Cagliari)
- C16) Unraveling the gut-brain axis: N-palmitoyl-D-glucosamine in dysbiosis-driven pain
Federica Ricciardi (Napoli)
- C17) Circadian Reprogramming of Skeletal Muscle Metabolism Primes a Preconditioned State for Hypoxic Stress in Ischemic Stroke
Rohan Mahesh Patil (Napoli)
- C18) Decoding Vulvodinia: from pelvic sensitivity to central pain processing
Michela Perrone (Napoli)
- C19) Maternal Hypoxic Preconditioning Attenuates Neonatal Hypoxic-Ischemic Brain Damage: Focus on Exosomes
Giovanna Lombardi (Napoli)
- C20) Gnao1 Regulates Astrocytic Reactivity in the Midbrain of the A53T- α -Synuclein Mouse Model of Parkinson's Disease
Michele Tufano (Napoli)

13:45-14:30 **Light Lunch**

14:30-14:55 Invited Lecture - Chair: Eugenio Barone

Neurobiological links between depression and Alzheimer disease: Novel pharmacological targets

Filippo Caraci

Department of Drug and Health Sciences, University of Catania

14:55-16:30 **Oral Communication Session IV**

Chairs: Rossella Russo, Giorgia Gullotta

- C21) Targeting the EZH2/H3K27me3 Axis Rescues CDK5/p53 Signaling, Mitochondrial Dysfunction, and Neuroinflammation in an In Vitro Model of Alzheimer's Disease
Sarah Adriana Scuderi (Messina)
- C22) Astrocyte activation beyond neuroinflammation: implications for oligodendrocyte maturation in Alzheimer's disease
Caterina Scuderi (Roma)
- C23) Myrcene as a potential natural treatment in mild Traumatic Brain Injury (mTBI)
Viviana Iodice (Napoli)

C24) Implications Of The Kynurenine Pathway In The Pathogenesis Of Spinal Muscular Atrophy
Giusy Laudati (Napoli)

C25) Tumour necrosis factor- α -stimulated gene-6 (TSG-6): a novel neuroprotective mediator in acute ischemic stroke
Chiara Di Santo (Rende, Cosenza)

C26) Progesterone and Pregnenolone Attenuate LPS-Induced Neuroinflammation in Human Microglia: Potential Therapeutic Implications for Drug-Resistant Epilepsy
Ramona Meanti (Monza)

C27) Neuroprotective and anti-inflammatory effects of JNJ-37822681 in an in vitro model of neuroinflammation
Lorenza Guarnieri (Catanzaro)

16:30-16:45 **SIF Awards for Best Poster and Oral Communications**

General Information

The meeting venue is the Hotel Marechiaro, located in Gizzeria Lido, close to Lamezia Terme International Airport and main rail station (Lamezia Terme Centrale) (a few minutes by taxi).

Communications (Oral and Poster) and Registration fee

The Scientific Committee reserves the right to select the oral and posters communications submitted to the Scientific Secretariat and, subsequently, will notify the applicants of the outcome. Abstract for consideration as oral or poster communications should be submitted to the Scientific Secretariat within June 5th 2026.

In addition, accommodation, the social dinner, and overnight stay on July 16th (in a double or triple room) will be covered for young, non-tenured SIF members under 38 years of age who present an oral or a poster communication.

For SIF members attending the Monothematic Conference registration is free of charge.

Unless otherwise agreed with the organizers, for non SIF members a registration fee of 300 € is to be paid beforehand via bank transfer (IBAN: IT35W0200880884000103544669) to: Department of Pharmacy, Health Sciences and Nutrition, University of Calabria, 87036 Rende, Cosenza, Italy (causal: registration fee meeting "Monothematic SIF Meeting"). The fee will allow to attend the meeting sessions, coffee and lunch breaks. Registration is requested for all participants.

To limit the environmental impact of the meeting, the program will be available online by means of a QR code to be used with the smartphone.

Meeting content and format

The meeting includes two *Lectio Magistralis* of 60 min each, two invited lectures 25 min each and it is organized in four main free oral communication sessions and one poster session on topics including basic, translational and clinical aspects of neuroinflammation and neurodegeneration, target and drug discovery. Each oral communication will be 15 minutes in duration including discussion.

Posters (height 100 cm; width 70 cm) will be mounted (using sellotape provided by the hotel desk) on the assigned board and viewed the 16th July; these will be discussed with the indicated Chairpersons at indicated time on 16th July.

Language

The language of the meeting will be Italian.

Accommodation

Due to limited number of rooms in the Hotel Marechiaro, accommodation will be on a first arrive basis preferring selected participants for oral and poster presentation. Remaining rooms will be at an agreed discount rate. Transportation to/from the meeting venue will be independently organized by registered participants.

For further information, please, address the correspondence to the executive secretariat.

Social Program

Thursday, July 16th, 2026 the social dinner will be served at 21.00 at the Restaurant Mare Chiaro.

Executive Secretariat: Dott. Giuseppe Oliva

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With the unconditional contribution of



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