

# 16.10.2023. MONDAY

8:00-18:00

## REGISTRATION

## PARALLEL SYMPOSIA

### **S16 “The intertwining of inflammatory pathways in the central nervous system: physiological versus pathological implications” (Carthage I room)**

**CHAIRS: Amira Zaky (EG); Youssef Anouar (FR)**

**16.1** Youssef Anouar (INSERM, University of Rouen Normandy, France):

“Role of a selenoprotein in neuroprotection: application to Parkinson’s disease after intranasal”

**16.2** Nermeen Z. Abuelezz (Misr University for Science and Technology Giza, Egypt):

“MicroRNAs as Potential Orchestrators in Alzheimer’s related inflammatory Pathology: An experience from Egypt”

**16.3** Marc Landry (University of Bordeaux; IMN, CNRS, France):

“Analgesic effects of the relaxin family peptides in inflammatory pain”

**16.4** Amira Zaky (Alexandria University, Alexandria, Egypt):

“Implication of the pleiotropic APE1/Ref-1 Redox activity in pain sensitization mechanism”

**16.5** Elena Lucarini (University of Florence, Italy):

“Efficacy and pharmacodynamic profile of Brassicaceae constituents in the management of chronic pain”

### **S17 “From neuronal plasticity to glia protection: mapping the path of resilience and vulnerability to stress” (Carthage II room)**

**CHAIRS: Marta Valenza (IT); Carla Nasca (USA)**

**S17.1** Barbara di Benedetto (University of Regensburg Regensburg, Germany):

“Molecular and morphological signatures of astroglial responses to social and emotional dysfunctions”

**S17.2** Benedetta Bigio (New York University School of Medicine, New York, NY, USA): “Computational approaches and exosomes to identify modifiable targets for stress-related disorders”

**S17.3** Roberta Facchinetti (Sapienza University of Rome, Italy):

“Molecular changes of glia and neurons in the maladaptive response to acute stress are prevented by a single administration of ketamine in a rodent model of PTSD”

**S17.4** Laura Musazzi (University of Milano Bicocca, Milan, Italy):

“Mechanisms of resilience and vulnerability to chronic mild stress in rats: a role for inflammation?”

**S17.5** Carla Nasca (New York University School of Medicine, New York, NY, USA):

“Epigenetic mechanisms of neuroplasticity to stress: emerging role of mitochondria”

### **S18 “New Perspectives in Mechanisms of Neurodegeneration” (Carthage III room)**

**CHAIR: Alexia Polissidis (USA)**

**S18.1** Aaron Gitler (Stanford University, CA USA): “Two New ALS Targets (and one New Drug)”

**S18.2** Hilal Lashuel (Ecole Polytechnique Fédérale de Lausanne, Switzerland): “Unraveling the Complex Role of Protein Aggregation in Parkinson’s Disease; From mechanisms to diagnostics and therapeutic strategies”

**S18.3** Siham Boumhaouad (Mohammed V University of Rabat, Rabat, Morocco): “The Impact of Melatonin on Diurnal Variation of Extracellular Dopamine in CBA/CaJ and C57BL/6 Mice: A Comparative Study”

**S18.4** Harry Alexopoulos (University of Athens, Greece): “Drosophila Melanogaster As A Model System For Drug Discovery In Neurodegenerative Disorders”

**S18.5** Alexia Polissidis (Deree- American College Of Greece) Alpha-synuclein-induced stress sensitivity renders the Parkinson’s disease brain susceptible to neurodegeneration

### **S19 “New insights into activated kinases, multiple sclerosis and receptors mechanisms” (Majles room)**

**CHAIR: Lamia Bouslama-Oueghlani (FR)**

**S19.1** Lamia Bouslama-Oueghlani (Sorbonne University, Paris, France):

“Pak1 inactivation triggers myelin formation through actin disassembly in oligodendrocytes”

**S19.2** Meriam Belghith (Institut Pasteur de Tunis, Tunisia):

“The fine tuning of infiltrated t cells in multiple sclerosis”

**S19.3** Erika Pintér (University of Pécs, Pécs, Hungary):

“Determination of the binding sites of organic polysulfides on human trpa1 by mutant variants of the receptor”

**S19.4** Rafika Ben Laamari (Institut Pasteur de Tunis, Tunisia):

“Study of the Correlation between Herpesvirus Infection and T CD8+ Effector Cells in Patients with Multiple Sclerosis and Neuro-Behçet’s Disease”

10:50-11:10

## COFFEE BREAK/POSTERS

## PARALLEL SYMPOSIA

**S20 “Novel approaches in preclinical neuroscience” (Carthage I room)**

**CHAIR: Christina Dalla (GR), Olfa Masmoudi-Kouki (TN)**

**S20.1** Christina Dalla (National and Kapodistrian University of Athens, Greece):

“Sex as a biological variable in preclinical neuropsychopharmacology”

**S20.2** Panagiotis Politis (Biomedical Research Foundation of the Academy of Athens, Greece):

“Gene regulation networks in nervous system cancers: identification of novel pharmacological targets”

**S20.3** Elias Pavlopoulos (Velocigene Regeneron Pharmaceuticals, New York, NY, USA): “Human in vitro systems for CNS disease modelling, drug discovery, and drug development”

**S20.4** Yosra Hamdi (University of Tunis El Manar, Tunis, Tunisia):

“Cytoprotective and Neurotrophic Effects of neuropeptide ODN and PACAP in in vitro and in vivo Models of Neurodegenerative Diseases”

**S20.5** Rafael Madonado (University Pompeu Fabra, Barcelona, Spain):

“Involvement of gut microbiota and epigenetic factors in food addiction”

**S21 “Fighting neurological diseases from the intestine: impact of enteric microbiota, immune and nervous system on the gut-brain axis” (Carthage II room)**

**CHAIRS: Luisa Seguella (IT), Lorenzo Di Cesare Mannelli (IT)**

**S21.1** Matteo Fornai (University of Pisa, Italy):

“Intestinal epithelial barrier at the crossroads between the microbiota-gut-brain axis and neurodegenerative disorders.”

**S21.2** Giuseppina D’Alessandro (Sapienza University of Rome, Italy):

“Gut microbiota alterations affect glioma growth and innate immune cells.”

**S21.3** Malvyne Derkinderen (UMR Inserm, Faculté de Médecine, Nantes, France):

“Can probiotics modulate gut inflammation and induce gut-brain axis remodelling?”

**S21.4** Aitak Farzi (Otto Loewi Research Center, Medical University of Graz, Austria):

“Gut-brain communication in bipolar disorder.”

**S21.5** Jacques Gonzales (Michigan State University, East Lansing, USA):

“Early life adversity disrupts intestinal function by remodelling the enteric nervous system.”

**S22 “The role of nitric oxide signalling in brain pathologies. Therapeutic implications and their limit. (Carthage III room)**

**CHAIR: Joanna M. Wierońska (PL)**

**S22.1** Vicente Felipo (Centro de Investigación Príncipe Felipe, Valencia, Spain):

“Differential role of nitric oxide signalling in the deleterious effects of acute and chronic hyperammonemia”

**S22.2** Nikolaos Pitsikas (University of Thessaly, Volos, Greece):

“Nitric oxide (NO) donors. Potential candidates for the treatment of anxiety disorders?”

**S22.3** Joanna M Wierońska (Maj Institute of Pharmacology Polish Academy of Sciences, Poland):

“The role of nitric oxide dependent pathways in the precognitive activity of metabotropic glutamate receptors ligands”

**S22.4** Fella Tounsi (Mouloud Mammeri University of Tizi Ouzou, Algeria):

“The role of nitric oxide signalling in brain pathologies. Therapeutic implications and their limits.”

**S22.5** Paulina Bastian (Medical University of Gdansk, Poland):

“2-methoxyestradiol – mediated control of nNOS and Heat Shock Proteins affects DNA in glioblastoma cells”

**S23 “Novel insights into alpha-synuclein pathology and toxicity in neurodegenerative diseases” (Majles room)**

**CHAIR: Arianna Bellucci (IT)**

**S23.1** Luigi Bubacco (University of Padua, Italy):

“Dopamine metabolites initiate  $\alpha$ Synuclein-mediated impaired proteostasis and degeneration in neuronal projections”

**S23.2** Leonidas Stefanis (University of Athens Medical School, Athens 11527, Greece):

“Alpha-synuclein interplay with protein degradation systems”

**S23.3** Sarah-Anna Heschem (Maastricht University Medical Center, The Netherlands):

“Magnetothermal nanoparticle technology alleviates parkinsonian-like symptoms in mice.”

**S23.4** Arianna Bellucci (University of Brescia, Italy):

“Synaptic alpha-synuclein microaggregates in synucleinopathies: engine of neurodegeneration and key therapeutic targets”

11:10-13:00

13:00-14:00

**LUNCH**

**PARALLEL SYMPOSIA**

**S24 “Sex differences in translational mechanisms of fear-based disorders” (Carthage I room)**

**CHAIR: Raül Andero Galí (ES)**

**S24.1** Joanna Dabrowska (Rosalind Franklin University of Medicine and Science, Chicago, IL, USA):

“The integration of interoceptive signals and defensive behaviors via oxytocin receptor-expressing neurons in the bed nucleus of the stria terminalis (BNST)”

**S24.2** Arnau Ramos Prats (Medical University of Innsbruck, Austria):

“Sex differences in mglu5 receptor-mediated control of negative valence in mice”

**S24.3** Hanna Hörnberg (Max Delbrück Center for Molecular Medicine, Berlin, Germany): “Sex differences in translational mechanisms of fear-based disorders”

**S24.4** Raül Andero Galí (Autonomous University of Barcelona, Spain):

“Sex differences in neural mechanisms of the NK3 receptor modulating fear”

**S25 “Non-neuronal cells as guardians of CNS homeostasis: relevance in brain development and diseases” (Carthage II room)**

**CHAIRS: Mariagrazia Grilli (IT); Roberta Facchinetti (IT)**

**S25.1** Marta Valenza (Sapienza University of Rome, Italy):

“The role of astrocytes in mediating oligodendrocyte maturation and function: evidence with co-ultramicrosized palmitoylethanolamide/luteolin in models of beta-amyloid toxicity”

**S25.2** Rosa Chiara Paolicelli (University of Lausanne, Switzerland):

“The Alzheimer’s disease risk gene Inpp5d modulates synaptic pruning by microglia in the developing hippocampus”

**S25.3** Mariagrazia Grilli (University of Piemonte Orientale, Novara, Italy):

“Multifaceted non-neuronal dysfunction as a novel pharmacological target in neurodevelopmental and neuropsychiatric disorders”

**S25.4** Neibla Priego (Spanish National Cancer Research Centre (CNIO), Madrid, Spain):

“TIMP1 mediates astrocyte-dependent local immunosuppression in brain metastasis”

**S26 “Dissecting the complexity of neurodevelopmental disorders: from pathophysiology to novel therapeutic approaches” (Carthage III room)**

**CHAIRS: Antonia Manduca (IT) and Anna Maria Tartaglione (IT)**

**S26.1** Marco Segatto (University of Molise, Italy):

“Disruption of cholesterol homeostasis in Rett syndrome: a new role for BET proteins”

**S26.2** Elena Martín-García (Universitat Pompeu Fabra, Barcelona, Spain):

“THC exposure during adolescence increases impulsivity-like behavior in adulthood in a WIN 55,212-2 self-administration mouse model”

**S26.3** Tibor Stark (Masaryk University, Brno, Czech Republic):

“Role of the endocannabinoid system in the pathophysiology and treatment of schizophrenia: the emerging potential of preventive approach”

**S26.4** Anna Maria Tartaglione (Italian National Institute of Health, ISS, Rome, Italy):

“Exploring the role of endogenous retroviruses in Autism Spectrum Disorder: evidence from preclinical models”

**S27 “Therapeutic Use of Cannabinoids in Neurodegenerative Disorders” (Majles room)**

**CHAIRS: Alessia Ligresti (IT); Eva De Lago (ES)**

**S27.1** Alessia Ligresti (National Research Council of Italy (ICB-CNR, Italy):

“Targeting cannabinoid receptor 2 in neurodegenerative diseases: recent efforts from a medicinal chemistry perspective”

**S27.2** Julian Romero (Universidad Francisco de Vitoria, Madrid, Spain):

“Cannabinoid modulation of microglial function in the context of neuroinflammation”

**S27.3** Eva De Lago (Universidad Complutense de Madrid, Spain):

“Preclinical development of cannabinoid-based therapies in pathologies related to TDP-43 dysregulation: Amyotrophic lateral sclerosis and frontotemporal dementia”

**S27.4** Mario Van Der Stelt (Leiden University, The Netherlands):

“Controlling and Visualizing Lipid Signaling in the Brain”

**S28 “Chemical and Molecular Tools to Understand the Brain in Health and Disease” (Carthage VII)**

**CHAIRS: Ismail Ahmed (USA); Hilal Lashuel (CH)**

**S28.1** Ismail Ahmed (New York University School of Medicine, NY, USA):

“Optopharmacological tools for spatiotemporal control of neurohormone signaling and social behavior”

**S28.2** Eleonora Palma (Sapienza University of Rome):

“The imbalance between pro-epileptogenic and protective cytokines in human epilepsies”

**S28.3** Leena Ali Ibrahim (Harvard Medical School, MA, USA):

“Developmental dynamics of bottom-up and top-down input integration onto L1 interneurons in the sensory cortex”

**S28.4** Ines El Bini Dhouib (Pasteur Institute of Tunisia, Tunisia)

“Insights into Parkinson’s with Potassium Channels at the Forefront”

**S28.5** Hilal Lashuel (Swiss Federal Institute of Technology Lausanne, Switzerland):

Post-translational Modifications in Parkinson’s disease and Synucleinopathies: From mechanisms to novel targets and therapeutic opportunities

**KEYNOTE LECTURE: TRACEY SHORS**

***Everyday trauma – and how not to ruminate on it so much***

**CHAIR: Christina Dalla**

**(Carthage room I)**

**VISIT to Sidi Bou Said (18.00)**



**frontiers**

**ALA DINNER (20.00-23.00)+A1:B27**