**XXI SUMMER SCHOOL OF NEUROSCIENCE**  
15–19 JULY, 2024  
CATANIA, ITALY  

**MEMORY DEFICIT AND DEMENTIA: ADVANCEMENTS IN PHYSIOLOGY AND TREATMENT HOPE**  

**SCIENTIFIC DIRECTOR:** Prof. Giuseppe Di Giovanni

### 15th July

**08:30**  
*Opening*  
Filippo Drago and Giuseppe Di Giovanni  

**09:00–10:00**  
*Morning Lecture*  
*From memory loss to memory mastery: unveiling the power of superior memory*  
Patrizia Campolongo, Department of Physiology and Pharmacology, Sapienza University of Rome, Italy.  

**10:00–10:30**  
*Interactive discussion*

**10:30–11:30**  
*Neurochemistry and dementia: focus on monoamines in Alzheimer’s disease*  
Philipp De Deurwaerdere, Institut des Neurosciences Cognitives et Integratives d’Aquitaine, CNRS Unité Mixte de Recherche, Bordeaux, France.  

**11:30–12:00**  
*Interactive discussion*

**13:00**  
*Light lunch*

**15:30–16:30**  
*The hippocampus in depth: new vistas on an old circuit*  
Liset M de la Prida, Instituto Cajal – CSIC, Madrid, Spain.  

**16:30–17:00**  
*Interactive discussion*

**17:00–18:00**  
*General discussion*

### 16th July

**Morning Lecture**  

**09:00–10:00**  
*Cognitive comorbidities of absence seizures*  
Sandra Vaz, Instituto de Medicina Molecular João Lobo Antunes, Faculty of Medicine, University of Lisbon, Portugal.  

**10:00–10:30**  
*Interactive discussion*

**10:30–11:30**  
*Memory & dementia: A role for GLT-1-mediated hyperexcitability*  
Florencio Conti, Department of Medicine Experimental and Clinical, Polytechnic University of Marche; and Center for Neurobiology of Aging, IRCCS INRCA, Ancona, Italy.  

**11:30–12:00**  
*Interactive discussion*

**13:00**  
*Interactive discussion*

**15:30–16:30**  
*Chronic stress and exosome as key players in precipitation and diagnosis of Alzheimer’s disease*  

**16:30–17:00**  
*Interactive discussion*

**17:00–18:00**  
*General discussion*

### 17th July

**Morning Lecture**  

**09:00–10:00**  
*Neurobiological links between depression and Alzheimer’s disease: novel pharmacological targets for future disease-modifying strategies*  
Filippo Caraci, Department of Medicine and Health Sciences – University of Catania, Italy.  

**10:00–10:30**  
*Interactive discussion*

**10:30–11:30**  
*Advancing brain health: integrating sex as a biological variable in Alzheimer research*  
Laura Castro, Women’s Brain Project, Zurig, Swiss.  

**11:30–12:00**  
*Interactive discussion*

**13:00**  
*Afternoon Lecture*

**15:30–16:30**  
*FTLD – how pathology and genetics influence the development of biomarkers*  
Ivana Delolte, Boston University, Chobanian and Avedisian School of Medicine (BUCASM), Boston, USA.  

**16:30–17:00**  
*Interactive discussion*

**17:00–18:00**  
*General discussion*

### 18th July

**Morning Lecture**  

**09:00–10:00**  
*Explaining the role of Tau in Neurodegeneration*  
Rohan de Silva, UCL Queen Square Institute of Neurology, London, UK.  

**10:00–10:30**  
*Interactive discussion*

**10:30–11:30**  
*The olfactory trail in dementias*  
Rafael Franco, Department of Biochemistry and Molecular Biomedicine, Faculty of Biology, University of Barcelona, Spain.  

**11:30–12:00**  
*Interactive discussion*

**13:00**  
*Afternoon Lecture*

**15:30–16:30**  
*Inflammation in Alzheimer’s disease: new insights*  
Goran Šimić, University of Zagreb School of Medicine, Croatia Institute for Brain Research, Zagreb, Croatia.  

**16:30–17:00**  
*Interactive discussion*

**17:00–18:00**  
*General discussion*

### 19th July

**Morning Lecture**  

**09:00–10:00**  
*Bridging the divide: Beta-Amyloid’s dual role in brain health and Alzheimer’s disease*  
Daniela Puzzo, – Department of Biomedical and Biotechnological Sciences, University of Catania, Italy.  

**10:00–10:30**  
*Interactive discussion*

**10:30–11:30**  
*Elsevier workshop on how to get published in a scientific journal*  
Giuseppe Di Giovanni, Cardiff University, UK; University of Malta, MT and University Magna Graecia of Catanzaro, Italy.  

**11:30–12:30**  
*Presentation of the research projects by participants*

**12:30–13:00**  
*Closing remarks*