WINTER SCHOOL ON POLLUTION AND MENTAL HEALTH

February 10, Tuesday

Moderators: Paola Fadda (UniCA) & Liana Fattore (IN-CNR)

9.30-9.45 **Paola Fadda** – *Introduction to the NeuroBridge School*

9.45-10.15 **Marc Landry, University of Bordeaux**

The PsyCoMed project- Psychiatric disorders and Comorbidities caused by pollution in the Mediterranean area

10.15 – 11.00 **Francisco Eliseo Olucha Bordoneau, Universitat Jaume I**

How pollutants can get the brain during development and adulthood

11.00-11.30 COFFEE BREAK

11.30-12.15 **Anne-Louise Ponsonby, Florey Institute, Melbourne**

Pollutant chemicals and neurodevelopment

12.15-13.00 **Olfa Masmoudi-Kouki, University of Tunis**

How PACAP Protects the Brain from Glyphosate and Nanoplastic Toxicity: Effects Neural Cell Differentiation, Neuroinflammation, Oxidative Damage, Epigenetic Changes, and Microbiota Balance

13.30-15.00 LUNCH

15.00-15.30 **Mónica Navarro-Sánchez, Universitat Jaume I**

The chemical and behavioral impact of nanoplastics after maternal nanoplastic

15.30-16.00 **Ankit Siwach, UniCA, Cagliari**

Exploring neuroinflammation and peripheral oxidative stress in adult rats prenatally and/or perinatally exposed to nanoplastics

16.00-16.30 **Mariem Sallemi, University of Tunis**

Effects of prenatal exposure to nanoplastic on metabolism and neuroendocrine regulation: potential protective action of the neuropeptide ODN

16.30-17.00 Questions & Discussion

February 11, Wednesday

10.00-11.00 Workshop #1. AI tools with Deep-Lab-Cut and SIMBA to study the impact of pollutants on behavior
Organized by Monica Navarro-Sánchez & Mohamed Zahran, Universitat Jaume I

11.00-11.15 Organization of the working groups and instruction for the practical session

11.15-11.45 COFFEE BREAK

11.45-12.45 Working groups in action
How to use Deep-Lab-Cut and SIMBA: practical simulation of their application to different behavioral tests

12.45-14.15 LUNCH

14:15-15.15 Workshop #2. Molecular docking: predicting how a pollutant molecule (ligand) will fit and bind to a biological target
Organized by Ibtihel Dhaya, University of Tunis, & Antonio Laus, CRS4, Pula (CA)

15.15-15.30 Organization of the working groups and instruction for the practical session

15.30-16.00 COFFEE BREAK

16.00-17.00 Working groups in action
Molecular docking: practical simulation of their application to different case studies

February 12, Thursday

Moderators: Paola Fadda & Liana Fattore

9.30-10.15 **Maria Antonietta Casu, IFT-CNR, Cagliari**

Effects of nanoplastic exposure on brain function and behavior in *Drosophila melanogaster*, with a focus on a Drosophila model of Parkinson's disease

10.15 – 11.00 **Stefano Morara, IN-CNR, Milan**

What *zebrafish* can tell us about the central effects of exposure to microplastics

11.00-11.30 COFFEE BREAK

11.30-12.15 **Irene Costantini, University of Florence**

Emerging methods and imaging techniques to explore the neurotoxic effects of microplastics in *honeybee* brain

12.15-13.00 **Amira Zaky, University of Alexandria**

Environmental pollutants-induced neuronal injury mediated by cellular inflammasomes

13.30-15.00 LUNCH

15.00-15.45 **Jacques Noel, CNRS, Nice**

The impact of a combination of nano-plastics and DEHP on health and pain sensitivity.

15.45-16.30 **Sandra Sanchez, University of Bordeaux**

Neuroinflammation as a mechanistic link between ADHD and pain sensitization: evidence from anterior cingulate cortex dysfunction

16.30-17.00 Questions & Conclusions