

# NUCLEO-OMICS24

## NAPLES, 30-31 OCTOBER 2024

We are very proud to announce the first edition of the international workshop **NUCLEO-OMICS24**, which will be held in Naples, Italy, **30-31 October 2024**, at the **Aula Magna** of **Scienze Biotechnologiche Building**, via Tommaso De Amicis, 95. The first part of the meeting will focus on the latest advancements in research on organic molecules and biomacromolecules, and their applications in chemistry, biotechnology, and systems biology. In the second part, scientists will discuss the important topic of interactions between Mediterranean natural substances and organic biomacromolecules as a potential tool in medicinal chemistry. To encourage a broad participation, costs have been kept to a minimum, and to foster personal and scientific interactions among researchers, we have organized two social dinners and a guided tour of Naples' historic landmarks.



## LOCATION

The **Scienze Biotechnologiche Building** is located inside the Azienda Ospedaliera Universitaria Federico II - Policlinico. It is a recently built structure that hosts up to 3000 students from biotechnology and medicine degree courses.



# SCIENTIFIC COMMITTEE

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**Nicola Borbone - University of Naples Federico II**

**Brigida D'Abrosca - University of Campania Luigi Vanvitelli**

**Stefano D'Errico - University of Naples Federico II**

**Francesco De Riccardis - University of Salerno**

**Germana Esposito - University of Naples Federico II**

**Andrea Patrizia Falanga - University of Naples Federico II**

**Antonio Fiorentino - University of Campania Luigi Vanvitelli**

**Sabrina Giordano - University of Naples Federico II**

**Domenica Musumeci - University of Naples Federico II**

**Maria Grazia Nolli - University of Naples Federico II**

**Serena Riela - University of Catania**

**Giovanni Nicola Roviello - CNR**

**Monica Terracciano - University of Naples Federico II**

**Gabriele Travagliante - University of Catania**

**Marco Vanoni - University of Milano-Bicocca**

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# PROGRAM

## PROGRAM 30 OCTOBER 2024

08.00 - 09.30 **Registration**

09.30 - 09.45 **Opening**

***EXPLOITING ORGANIC MOLECULES AND BIOMACROMOLECULES IN PRECISION MEDICINE AND SYSTEMS BIOLOGY***

### MORNING SESSION

Chairperson **Gennaro Piccialli**

09.45 - 10.20 Elise Dumont - Université Cote d'Azur: "Dynamics of DNA-ligand interactions caught in silico: a cross-talk with experiments".

10.20 - 10.45 Salvo Sortino - University of Catania: "Shedding Light on Nanomedicine: Photoactivatable Polymeric Nanoconstructs for Unconventional Therapies".

10.45 - 11.05 Monica Scognamiglio - University of Campania Luigi Vanvitelli: "NMR-based metabolomics: an invaluable tool to study bioactive natural products".

11.05 - 11.30 **Coffee Break**

Chairperson **Antonio Fiorentino**

11.30 - 11.55 Thomas Gale - University of Greenwich: "Design and synthesis of protease inhibitors for potential antiviral therapy".

11.55 - 12.20 Roberta Puglisi - University of Catania: "Functional Materials for sequestration and degradation of drugs".

12.20 - 12.40 Bruno Catalanotti - University of Naples Federico II: "Computational strategies to disclose molecular basis of interaction with canonical and non-canonical nucleic acid structures".

12.40 - 14.30 **Lunch**

### AFTERNOON SESSION

#### ***LITERARY EVENT***

Chairpersons **Giorgia Oliviero, Renato Noto**

14.45 - 15.15 "Clementina" by Marinella Sorrentino, introduced by **Libera D'Angelo** and **Concetta Giancola**

15.15 - 15.45 "Marussia Bakunin" by Pasqualina Mongillo, introduced by **Rosa Lanzetta** and **Francesco de Riccardis**

15.45 - 16.15 "Lettera agli Scenziati del futuro" by Antonio Ereditato, introduced by **Valeria Costantino** and **Renato Noto**

16.15 - 16.25 Conclusions by **Giorgia Oliviero**

16.30 **Tea Break**

20.00 **Social Dinner**

## PROGRAM 31 OCTOBER 2024

***MEDITERRANEAN SYNERGIES: THE INTERACTION BETWEEN TERRITORIAL NATURAL SUBSTANCES AND ORGANIC BIOMACROMOLECULES***

### MORNING SESSION

Chairperson **Serena Riela**

09.00 - 09.35 Vera Muccilli - University of Catania: "Evaluation of protein-bioactive compounds interactions: dried fruit shell extracts as novel hypoglycemic ingredients".

09.35 - 09.55 Antonella Accardo - University of Naples Federico II: "Peptide based supramolecular architectures as multivalent tools for biomedical applications".

09.55 - 10.15 Alessio Bartocci - University of Trento: "Binding of small molecules to YTHDF proteins: characterisation through molecular dynamics simulations".

10.15 - 10.35 Valentina Sepe - University of Naples Federico II: "Nature: a promising arsenal to inspire the drug discovery from chronic inflammation to cancer".

10.35 - 11.00 **Coffee Break**

Chairperson **Francesco De Riccardis**

11.00 - 11.25 Giuseppe Gattuso - University of Messina: "A new water-dispersible microemulsion drug delivery system based on a supramolecular copolymer for the solubilization and delivery of flavonoids".

11.25 - 11.45 Giovanna Valentino - University of Campania Luigi Vanvitelli: "Structural elucidation of bioactive small molecules from Mediterranean plants as G-quadruplex DNA ligands" & Maria Marzano - University of Naples Federico II: "Targeting cancer cells with phytochemical compounds extracted from Mediterranean plants"

11.45 - 12:05 Deborah Quaglio - La Sapienza University of Rome: "Ferritin chemical modification for the multifunctional nucleic acid delivery".

12.05 - 12.25 Vincenzo Abbate - University of Naples Federico II: "The problem of close margins in oral cancer resections: molecular biology to support the surgeon".

12.25 - 12.45 Francesco Presini - University of Ferrara: "Biocatalysis in the synthesis of biologically relevant compounds".

12.45 - 13:05 Andrea Fin - University of Turin: "Intrinsically emissive short peptides nucleic acids".

13:05 - 13.20 **Concluding Remarks**

13.20 - 15.00 **Light Lunch** and **Poster Session**

15.00 - 18.00 **Sight-seeing Naples** organized by Gennaro Piccialli

19.30 **Pizza Aperitif**

