

Supramolecular Chemistry Days for Young Researchers 2023

30th May – 1st June 2023

PROGRAMME

Tuesday, May 30th, 2023

8h30 Registration

9h15 Opening Ceremony

Chair Prof Claudia Caltagirone (University of Cagliari)

09h30 PL1 **Prof Jonathan Steed** (Durham University)

“Supramolecular Gels: Tangled Soft Materials”

10h20 OC1 **Paolo P. Mazzeo** (University of Parma)

“On the mechanism of cocrystal mechanochemical reaction via low melting eutectic: a time resolved in-situ monitoring investigation”

10h35 OC2 **Aisha N. Bismillah** (University of York)

“Control of Dynamic sp³-C Stereochemistry”

10h50 OC3 **Efstratios Sitsanidis** (University of Jyväskylä)

“Spatiotemporal gelation in chemically active solvents and nanoscale probing the supramolecular interactions by near-field infrared spectroscopy”

11h05 Coffee break

Chair Prof Nadia Barbero (University of Turin)

11h25 IL1 **Prof Silvia Giordani** (Dublin City University)

“When supramolecular chemistry meets nanotechnology”

11h55 OC4 **Andrés Felipe Sierra R.** (Institute of Chemical Research of Catalonia)

“Calix[4]pyrrole Cavitands for Supramolecular Sensing”

12h10 OC5 **Peter Gallagher** (University of Southampton)

“Mechanically axially chiral rotaxanes in diastereoselective and enantioselective synthesis”

12h25 OC6 **Francesca Ghirga** (University of Rome Sapienza)

“Rational design and synthesis of water-soluble resorcarene-based linkers for immunosensors development”

12h40 OC7 **Benjamin M. W. Roberts** (University of Padua)

“Adventures on a nonequilibrium landscape”

12h55 OC8 **Matteo Cingolani** (University of Bologna)

“A fluorogenic hyaluronan-based probe to explore a protein biomarker”

13h10 **Lunch break**

Chair Dr Giacomo Picci (University of Cagliari)

14h50 IL2 **Prof Leonard Prins** (University of Padua)

“Energy-driven self-assembly of functional chemical systems”

15h20 OC9 **Sarah Pike** (University of Birmingham)

“Reversible and Robust Conformational Switching of a Photo-Responsive ortho-azobenzene/2,6-pyridyldicarboxamide Heterofoldamer”

15h35 OC10 **Pablo Msellem** (Sorbonne University, Paris)

“Molecular tweezers for multifunctional switchable organogels”

15h50 OC11 **Alessandro Pedrini** (University of Parma)

“Dynamic Behavior of Tetra-4-(4-pyridyl)phenylmethane-based Frameworks”

16h05 **Coffee break**

Chair Prof Carmen Talotta (University of Salerno)

16h25 IL3 **Prof Silvia Marchesan** (University of Trieste)

“Heterochirality to navigate peptide self-assembly in water”

- 16h55** OC12 **Bartosz Szyszko** (University of Wroclaw)
“Iminopyrroles – versatile building blocks for macrocyclic and supramolecular chemistry”
- 17h10** OC13 **Roberto Penasa** (University of Padua)
“Fluorescence Detected Circular Dichroism (FDCCD) of a Stereodynamic Probe”
- 17h25** OC14 **Dalila Cafagno** (University of Bologna)
“Investigation of the complexation equilibrium between calixarene wheels and viologen-based molecular axles”
- 17h40** OC15 **Andrea Cesari** (University of Padua)
“Monolayer-Protected Nanoparticles for high sensitivity detection of small molecules by NMR chemosensing”
- 18h00** Poster session

Wednesday, 31st, 2023

Chair **Prof. Vito Lippolis** (University of Cagliari)

- 09h00** IL4 **Prof Davide Bonifazi** (University of Wien)
“Programming molecular grapheneoids for supramolecular complex matter”

09h30 OC16 **Bejoymohandas Kochan Sathyaseelan** (ISOF-CNR Bologna)

“A surprising short bridge for generating bright phosphorescence from binuclear iridium(III) complexes for PhOLEDs”

09h45 OC17 **Serena Pilato** (University of Chieti-Pescara)

“Synthesis and characterization study of aggregates from amphiphilic calix[6]arenes. Effect of encapsulation on degradation kinetics of curcumin”

10h00 Short Oral presentations

Chair **Dr Rita Mocci** (University of Cagliari)

SOC 1 **Fabio Spiaggia** (University of Pisa)

“An inquiry concerning the Self-Induced Diastereomeric Anisochrony (SIDA) in ester derivatives of dipeptides: NMR investigations and analytical, thermodynamic, and conformational perspectives”

SOC 2 **Roberta Beccaria** (Politecnico di Milano)

“Chalcogen bond (ChB) as an efficient recognition motif of benzisothiazolinone antibacterials”

SOC 3 **Martin Power** (University of Manchester)

“Compact Rotaxane Superbases”

SOC 4 **Carlotta Pontremoli** (University of Turin)

“Squaraine Dyes as selective probes for mucin detection”

SOC 5 **Fabian Schwer** (University of Ulm)

“Towards Carbon Nanohoops as Charge Shuttles in Donor Acceptor Rotaxanes”

SOC 6 **Martina Orlandini** (University of Parma)

“Cavitand decorated MNPs in epigenetics: methylated histones recognition”

SOC 7 **Kajetan Dabrowa** (Polish Academy of Sciences Warsaw)

“Controlling extraction and transport of salts with light-responsive carriers”

SOC 8 **Marija Bakija** (Ruđer Bošković Institute Zagreb)

“Backdoor induction” of chirality: Iridium or rhodium phosphine or oxazoline complexes as selective catalysts for asymmetric hydrogenation”

SOC 9 **Rossella Santonocito** (University of Catania)

“Smart detection of stress biomarkers using a fluorescent sensor array”

SOC 10 **Rosa Bellavita** (University of Naples Federico II)

“Highway to breast cancer: supramolecular peptide nanofibers for drug delivery”.

11h00 Coffee break

Chair Prof Antonella Accardo (University of Naples Federico II)

11h20 IL5 **Dr Margherita Citroni** (Nature Communications)

“Insights into Scientific Publishing”

11h50 OC18 **Simone D’Agostino** (University of Bologna)

“Dynamics Processes in Supramolecular Complexes of Crown Ethers and Solid Acids: Toward Novel Solid-State Electrolytes”

12h05 OC19 **Serena Gentile** (University of Rome Tor Vergata)

“Rational control of the reorganization of DNA-based supramolecular structures”

12h20 OC20 **Michele Ciulla** (University of Chieti-Pescara)

“Inhibition of clathrate hydrate formation by treatment of liquid water with Terahertz radiation”

12h35 OC21 **Paolo Della Sala** (University of Salerno)

“Synthesis, Conformational Properties and Chiral Molecular Recognition Abilities of New Prismarene Derivatives”

12h50 OC22 **Agostino Galanti** (University of Trieste)

“Protocellular Materials: Tissue-Like Materials Capable of Non-Equilibrium Biochemical Sensing”

13h05 **Lunch break**

15h00-20h00 **Cagliari walking tour and aperitif**

Thursday, June 1st, 2023

Chair **Dr Michele Ciulla** (University of Chieti-Pescara)

09h00 IL6 **Prof Sander Wezenberg** (University of Leiden)

“Light-controlled anion binding and transport”

09h30 OC23 **Guzmán Gil-Ramírez** (University of Lincoln)

“Luminescent Chiral Ln assemblies: Structure-property relationships”

09h45 OC24 **Giuseppina D. G. Santonoceta** (University of Catania)

“Binding properties of methotrexate-metal-poly(acrylic acid) complexes in solution and at the solid-liquid interface for the development of pH-responsive delivery systems”

10h00 Short Oral presentations

Chair **Jessica Milia** (University of Cagliari)

SOC 11 **Anna Wcisło** (University of Gdańsk)

“Modified TCO electrodes as molecular recognition systems”

SOC 12 **Gabriele Giovanardi** (University of Parma)

“Gold(I)-catalyzed hydroarylations of alkynes for the synthesis of inherently chiral calix[4]arenes”

SOC 13 **Vivien Andrieux** (ENS Lyon)

“Towards Electron Responsive Viologen-Based Supramolecular Gels”

SOC 14 **Gabriele Melchiorre** (University of Rome la Sapienza)

“Dissipative Dynamic Covalent Chemistry (DDCvC) Based on The Transimination Reaction”

SOC 15 Patrizia Jankovic (University of Rijeka)

“Elucidating the role of amino acid disposition, cyclization and chirality on self-assembly propensity and catalytic activity of histidine-rich peptides”

SOC 16 Noemi Bognanni (University of Catania)

“Dimers of Cyclodextrins as Doxorubicin Delivery System”

SOC 17 Kevin Mall Haidaraly (Sorbonne University Paris)

“Multilamellar mesomorph donor-acceptor polyoxometalate-based hybrid material for photonics”.

SOC 18 Erika Palazzetti (University of Urbino)

“HBO-based ligand: a Fluorescent Sensor for Earth Metal Ions”

SOC 19 Fernando G. Guijarro (University of Madrid)

“Host-guest chemistry within adaptable porphyrin nanocages”

11h00 Coffee break

Chair Dr Anna Pintus (University of Cagliari)

11h20 IL7 Erica Del Grosso (University of Rome Tor Vergata)

“Marie Skłodowska-Curie proposal: general aspects, common worries and tips”

- 11h50** OC25 **Romain Jamagne** (University of Manchester)
“Information Processing Molecular Machines”
- 12h05** OC26 **Niamh Mockler** (University of Galway)
“Protein – Calixarene Framework Engineering”
- 12h20** OC27 **Filippo Ingargiola** (University of Bologna)
“Supramolecular-based fluorescent ligands as sensing tools for the detection of nonsteroidal anti-inflammatory drugs”
- 12h35** OC28 **Carlo Diaferia** (University of Naples Federico II)
“Peptide-based supramolecular hydrogels: multivalent tunable materials”
- 12h50** OC29 **Federico Nicoli** (University of Bologna)
“Photoinduced operation of a [2]rotaxane molecular machine through interconnection of proton transfer and photoisomerization reactions”
- 13h05** Closing Ceremony and Awards
- 13h30** Lunch