

9-11 February  
2023

# CINMPIS days 2023

Consorzio Interuniversitario Nazionale di ricerca in  
“Metodologie e Processi Innovativi di Sintesi”

PISA  
(Italy)

## Thursday 9 February

13:00-14:30 REGISTRATION

14:30-15:00 Opening Ceremony

Session 1 Chair: Vito Capriati

15:00-15:45 PL1 Darren J. Dixon

New catalytic approaches for simplifying complex molecule synthesis

15:45-16:15 IL1 Sergio Rossi

Enabling technologies: a powerful tool for the development of new catalytic and stereoselective methodologies in organic synthesis

16:15-16:30 OC1 Antonio Del Vecchio

Development of highly efficient cyclic(alkyl)(amino) carbene ruthenium complexes for olefin metathesis

16:30-16:45 OC2 Vittorio Pace

Designing New Synthetic Concepts for Imparting Molecular Complexity with C-1 Sources

16:45-17:15 Coffe Break



Session 2 Chair: Daniela Montesarchio

17:15-17:45 IL2 Gianluca Casotti

Expanding organozinc halides chemistry

17:45-18:00 OC3 Giulio Bertuzzi

Regio- and stereoselective electrochemical alkylations of Morita-Baylis-Hillman adducts

18:00-18:15 OC4 Giuseppe Floresta

Aza-Darzens reaction in water catalysed by immobilized cyclodextrins

18:15-18:20 FP1 V. P. Aravindakshan

Development of new catalytic methodologies using Cerium Laurate for the formation of new Carbon-Carbon bonds

18:20-18:25 FP2 Stefano Barranco

Synthesis of heterocyclic  $\beta$ -amino cyclobutane carboxamides via a mild base catalyzed amidation/aza michael addition tandem protocol

18:25-18:30 FP3 Tommaso Fantoni

New mechanistic insights into the copper-free Heck-Cassar-Sonogashira cross-coupling reaction

18:30-18:35 FP4 Alessandro Brusa

A novel six-steps synthesis of 7-hydroxycannabidiol

18:35-18:40 FP5 Francesco Basoccu

Thiourea dioxide (TDO) derivatives get a new life in mechanochemistry

18:40-18:55 OC5 Alessio Romerio

Design, synthesis and biological evaluation of new, glycolipid-based toll-like receptor 4 (tlr4) modulators



### Presentation Type

Plenary Lecture (40 min. + 5)

Invited Lecture (25 min + 5)

Oral Communication (10 min + 5)

Flash Presentation (5 min)

### Conference Venue

Dipartimento di Chimica  
e Chimica Industriale  
Via G. Moruzzi, 13  
56124 Pisa Italy



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## Friday 10 February

### Session 3: Chair Marino Petrini

#### 9:30-10:00 IL3 Alessandro Palmieri

$\beta$ -nitro acrylates and  $\beta$ -nitro enones: useful precursors of heterocyclic systems and highly functionalized molecules

#### 10:00-10:30 IL4 Armando Carlone

Enabling developments for efficient and applied organocatalysis

#### 10:30-10:45 OC6 Davide Illuminati

Synthesis of 2,6-dimethyltyrosine-like amino acids through C(sp<sup>3</sup>)-H demethylation of 4-dibenzylaminophenylalanine

#### 10:45-11:00 OC7 Domenica Musumeci

Nucleoamino acids and nucleopeptides: synthetic approaches, nucleic acid binding studies and supramolecular assembly

#### 11:00-11:30 Coffe Break

### Session 4: Chair Andrea Porcheddu

#### 11:30-12:00 IL5 Luigi Vaccaro

Sustainable approaches to C-H functionalization reactions

#### 12:00-12:15 OC8 Gianluigi Albano

Generation of heteroaryl-aryl bonds via irradiation-assisted palladium-catalyzed cross-dehydrogenative coupling

#### 12:15-12:30 OC9 Francesco Secci

Photocatalyzed oxidation of cyclic ketones for the preparation heterocyclic compounds

#### 12:30-12:45 OC10 Marco Ballarotto

Metal-free synthesis of (*E*)-stilbenes and diarylacetylenes by a regioselective Diels-Alder/aromatization approach

#### 12:45-12:50 FP6 Giovanna Cimmino

Seleno-glycoconjugates for nutraceutical application



#### 12:50-12:55 FP7 Michael Andresini

Synthesis of overlooked aza-S(IV) functionalities

#### 12:55-13:00 FP8 Lorenzo Chiaverini

Medicinal Tellurium(IV) compounds: inside the activation mechanism of AS101 and its halo-substituted derivatives

#### 13:00-14:30 Lunch Break

### Session 5: Chair Cristina Nativi

#### 14:30-15:00 IL6 Lucia Gardossi

Integration of biocatalysis and computational methods for the eco-design and synthesis of bio-based polyesters

#### 15:00-15:30 IL7 Filippo Perna

Green solvents for eco-friendly synthesis of active pharmaceutical ingredients

#### 15:30-15:45 OC11 Laura Spagnuolo

Holistic enzymatic approach for cellulose nanocrystals preparation and functionalization toward antibacterial materials

#### 15:45-16:00 OC12 Serena Traboni

Innovative streamlined methods in the synthesis of complex and valuable glycosides

#### 16:00-16:05 FP9 Rosarita D'Orsi

Lignin as an invaluable resource for organic field effect transistors

#### 16:05-16:10 FP10 Lorenzo Di Simo

Deep eutectic solvents as green reaction media in the Suzuki-Miyaura cross coupling reaction

#### 16:10-16:15 FP11 Davide Carboni

Towards a more sustainable photocatalyzed  $\alpha$ -arylation of amines

#### 16:15-16:45 Coffe Break

### Session 6: Chair Walter Cabri

#### 16:45-17:30 PL2 Marta Catellani

Pd/norbornene catalysis: mechanistic and synthetic aspects

#### 17:30-18:00 IL8 Luca Gentilucci

Hybrid  $\alpha/\beta$ -peptides targeting leukocytes: therapeutic opportunities and biofunctionalization of cell-adhesive materials

#### 18:00-18:15 OC13 Francesca Clemente

Can nitrogenated glycomimetics correct protein misfolding? The gaucher-parkinson case

#### 18:15-18:30 OC14 Antonio Ricci

Therapeutic peptide manufacturing processes in the industrial framework

19:30 **Cena Sociale** presso Ristorante Roba da Matti, Via delle Belle Torri 8, PISA

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## Saturday 11 February

### Session 7: Chair Marco Bandini

09:30-10:00 **IL9** Anna Notti

Playing with calixarene-based surfactants

10:00-10:15 **OC15** Francesca Milani

Biocatalytic “Green Transition” of industrial processes for the production of Cephalosporin antibiotics

10:15-10:30 **OC16** Stefano Superchi

Novel chirality sensors based on flexible dithienyls

10:30-10:45 **OC17** Giuseppe Sforazzini

Light-responsive molecular actuators for linear  $\pi$ -conjugated systems

10:45-10:50 **FP12** Filippo Petri

Synthesis of chiral ligands and luminescent lanthanide complexes

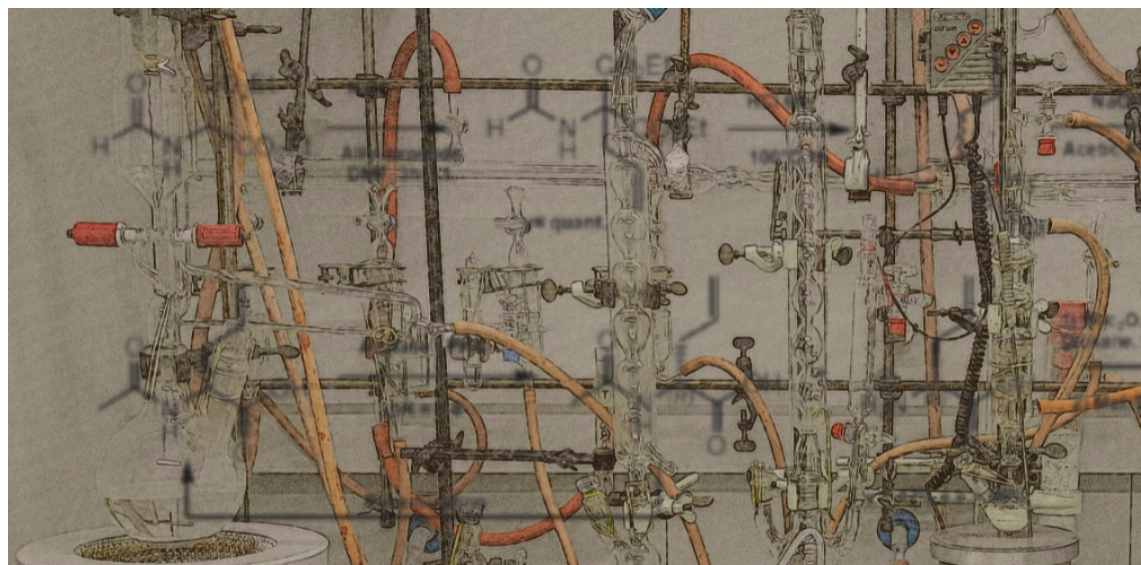
10:50-10:55 **FP13** Fabiana Cordella

A proline mimetic for the synthesis of new stable secondary structures for biomedical applications

10:55-11:00 **FP14** Alessio Carioscia

Carbon dots in organocatalysis via ACDC

11:00-11:30 **Coffe break**



### Session 8: Chair Filippo Doria

11:30-12:00 **IL10** Paolo Ronchi

Organic chemistry for Med. Chem. innovation: an overview and a case study

12:00-12:15 **OC18** Lucrezia Comparini

Harnessing heterobicyclic reactivity to access chemical diversity

12:15-12:30 **OC19** Elisabetta Rosadoni

Direct C-2 alkylation of azoles by decarboxylative coupling

12:30-12:35 **FP15** Mohammed M. Shaik

Liposomes containing chemically synthesized FP20 and QS-21<sub>ea</sub> to mimic the AS-01b as an effective vaccine adjuvant system

12:35 **Closing Remarks & Greetings**



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