



SOCIETÀ ITALIANA DI BIOCHIMICA
E BIOLOGIA MOLECOLARE
UNIVERSITÀ DEGLI STUDI DI PAVIA



**35^a RIUNIONE NAZIONALE
“A. Castellani”
DEI DOTTORANDI
DI RICERCA
IN DISCIPLINE BIOCHIMICHE**

(35th “A. Castellani” Meeting of PhD students in biochemical sciences)

**BRALLO DI PREGOLA (Pavia)
3 - 7 giugno 2025**

PROGRAMMA

COMITATO SCIENTIFICO-ORGANIZZATIVO

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**TUESDAY, JUNE 3rd, 2025**

17.00-20.00 Registration & check-in

20.00 **DINNER**  
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WEDNESDAY, JUNE 4th, 2025

8.50-9.00 Opening remarks

9.00-9.40 **Prof. Michela Tonetti (Università di Genova)**
Development of a TGDS knockout zebrafish model for studying the pathogenesis of Catel-Manzke syndrome

9.40-10.00 **Maria Teresa Altieri (Università di Ferrara)**
Exploring the TNPO3 influence in LGMDD2 zebrafish model

10.00-10.20 **Elisa Zamprogno (Università di Udine)**
Unraveling the correlation between dystonia and autophagic flux via ATP5CM3 mutations



COFFEE BREAK

10.50-11.10 **Giorgia Guccione (Università di Genova)**
Tackling the NAD-related signaling pathways to counteract doxorubicin-induced cardiotoxicity

11.10-11.30 **Michela Rosiello (Università di Foggia)**
Clockwork cells: circadian control of mitochondrial functions

11.30-11.50 **Mirko Tamma (Università di Foggia)**
Circadian mitochondrial dysfunction in cellular models of early-onset Parkinson's disease with PARK2 mutations

11.50-12.10 **Camilla Maggi (Università di Brescia)**
VEGFR2 R1051Q mutation modifies receptor membrane behavior and cellular metabolism through heterodimerization

13.00 **LUNCH**
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15.00-15.40 **Prof. Mauro Maccarrone (Università dell'Aquila)**  
**Phytocannabinoids, Endocannabinoids and The Challenge of Developing Selective Drugs**

15.40-16.00 **Camilla Danisi (Università di Napoli Federico II)**  
The CAM assay: an in vivo model to evaluate the biocompatibility and the efficacy of novel therapeutic compounds

16.00-16.20 **Gianluca Morganti (Università di Urbino)**  
Development of a surface-modified LNP with the aim of crossing the BBB and releasing ATM-variant mRNA into neuronal cells



**COFFEE BREAK**  
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16.50-17.10 **Prof. Mauro Maccarrone** (FEBS Chair of the Advanced Courses Committee)
FEBS Contribution to the Advancement of Molecular Life Sciences

20.00  DINNER

21.00-23.00 **Serata caminetto**

La collaborazione e la ricerca scientifica internazionale in tempi di guerra

Interverranno: **Prof. Vittorio Bellotti** (Università degli Studi di Pavia)
Prof. Salvatore Zappalà (Università degli Studi di Catania)

THURSDAY, JUNE 5th, 2025

9.00-9.40 **Prof. Adriano Aguzzi** (Universitätsspital Zürich, CH)
Functional Genomics of the Prion Life Cycle

9.40-10.00 **Irene Balloni** (Università di Pisa)
Investigation of the role of the 18 kDa translocator protein in neuroprotection: new modulatory mechanisms in different neuronal models of Alzheimer's disease

10.00-10.20 **Gloria Basso** (Università di Pisa)
Adenosine in an in vitro model of lung fibrosis: focus on its effects in myofibroblast-lipofibroblast trans-differentiation



COFFEE BREAK

10.50-11.10 **Tatiana Zuppelli** (Università di Catania)
Lipocalin-2 and iron metabolism dysregulation promote glioblastoma progression and resistance to radiotherapy

11.10-11.30 **Mario Cocorullo** (Università di Pavia)
Targeting *Mycobacterium abscessus* salicylate synthase to disrupt iron acquisition mechanisms employing FDA-approved drugs

11.30-11.50 **Chiara Motta** (Università di Pavia)
A Novel Virulence Mechanism in *Staphylococcus aureus*: FnBPA Cross-Linking to Fibrinogen by Bacterially Activated FXIII and TG2

11.50-12.10 **Serena Rustichelli** (IUSS, Pavia)
Natural modulators of platelet activation: antithrombotic potential of curcumin and its analogues



- 15.00-15.40 **Prof.ssa Lucia Longhitano (Università di Catania)**
Zebrafish (*Danio rerio*): a model for exploring metabolic rewiring in human diseases
- 15.40-16.00 **Giorgia Casucci (Università di Genova)**
Effects of TGDS knockdown in ATDC5 cells' chondrogenic differentiation
- 16.00-16.20 **Alessandra Sala (Università di Pavia)**
Development of therapeutic approaches to treat osteogenesis imperfecta
- 16.20-16.40 **Aghna Maryam (Università di Urbino)**
Protective role of nutraceuticals against UV-induced damage in human keratinocytes



COFFEE BREAK

17.10-18.00 BLITZ PRESENTATIONS (A)

- 1 **Susan Mirmajidi (Università di Milano)**
Placental endocannabinoid and eicosanoid profiling in maternal obesity and gestational diabetes
- 2 **Sofia Paola Lombardo (Università di Catania)**
Safety and efficacy profiling of sonoporation as a drug delivery method in solid tumors
- 3 **Anam Aftab (Università di Catanzaro Magna Grecia)**
Targeting glutamine metabolism to enhance sensitivity to ATR inhibition in triple-negative breast cancer cells
- 4 **Greta Bertoli (Università di Siena)**
Understanding prostate cancer organotropism: the role of citrate in the interplay between lung and bone resident cells and metastatic prostate cancer cells
- 5 **Giuseppe Nicolò Conti (Università di Catania)**
Long-reads RNAseq reveals an isoform switching transcriptional landscape in irradiated microglia

20.00



DINNER

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**FRIDAY, JUNE 6<sup>th</sup>, 2025**

- 9.00-9.40 **Prof.ssa Marzia Perluigi (Università di Roma La Sapienza)**  
**Defects of redox homeostasis and bioenergetics in the brain: a dangerous interplay for cognitive decline**
- 9.40-10.00 **Laura Orlando (Università di Catania)**  
Proteomic analysis profile and oxidative stress in glioblastoma cells exposed to radiotherapy
- 10.00-10.20 **Federico Marchini (Università di Siena)**  
Cystine-dependent metabolic vulnerabilities in mesenchymal stem-like triple-negative breast cancer: role of NRF2 and EGLN1 in oxidative stress resistance



**COFFEE BREAK**

- 10.50-11.10 **Nicola Masè (Università di Verona)**  
Molecular Insights into Redox-Mediated Regulation of a *Toxoplasma gondii* Cyclophilin
- 11.10-11.30 **Clelia Cortese (Università di Siena)**  
HPLC and MALDI-TOF analysis of promising new antimicrobial peptides for stability assessment against specific protease activity at infection sites
- 11.30-11.50 **Angelo Sparti (Università di Urbino)**  
Investigating the therapeutic potential of a novel fully human IgG4 anti-CD99 antibody through functional and phenotypic characterization in acute myeloid leukemia and immune cells
- 11.50-12.10 **Enrico La Spina (Università di Catania)**  
Tumour Neutrophils Mitochondrial Dysfunction and SYK/STAT5/NLRP3 Activation in Myelofibrosis: Impact of Ruxolitinib on NETs Formation and Bone Marrow Inflammation



**LUNCH**

- 15.00-15.40 **Prof. Luca Bini (Università di Siena)**  
**Extensive Proteomic Approach: a tool to open new perspectives in the study of viral infections**

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17.00-18.00 **BLITZ PRESENTATIONS (B)**

- 1 **Martina Codibue (Università di Brescia)**
Gremlin-1 promotes the acquisition of an inflammatory, oxidative and mesenchymal phenotype in 3T3-L1-derived adipocytes possibly via BMP-independent molecular pathways

- 2 **Stefano Putaggio** (Università di Messina)
Impact of catechin and epicatechin on AE1 functionality of human red blood cells
- 3 **Elisa Moreschi** (Università di Brescia)
Development of polypyrrole-based actuator to deepen the effects of tumoral extracellular matrix remodeling on endothelial cells
- 4 **Ilenia Paoletti** (Università di Foggia)
Exploring the effects of β -hydroxybutyrate on a new in vitro model of human hippocampal neurogenesis
- 5 **Gabriele Paolozzi** (Università di Roma La Sapienza)
Quantitative proteomics reveals BVRA as a key protein in mitochondrial metabolism
- 6 **Federica Di Padua** (Università di Ferrara)
Anti-inflammatory effects of S-1-propenyl-L-cysteine, a major constituent of aged garlic extract: reversion of the proinflammatory mRNA up-regulation induced in human bronchial epithelial IB3-1 cells by the COVID-19 BNT162b2-vaccine



COFFEE BREAK



20.00

DINNER

SATURDAY, JUNE 7th, 2025

- 9.00-9.40 **Prof. Alessandro Prinetti** (Università di Milano)
Cross talk between different cell populations in myelin repair: sphingolipids conduct the orchestra
- 9.40-10.00 **Cosimo Damiano Perrone** (Università di Siena)
SNIPR-driven orthogonal genetic circuits for tumor-specific sensing in lymphocytes
- 10.00-10.20 **Wendy Pérez Franco** (Università di Pavia)
Unrevealing the multi-organ consequence of osteogenesis imperfecta in aging
- 10.20-10.40 **Asifa Khan** (Università di Pavia)
Insights in the musculoskeletal phenotype of an animal model of diastrophic dysplasia
- 10.40 **CLOSING REMARKS**
- 11.00 **DEPARTURE**

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