Società Italiana di Biochimica

**e Biologia Molecolare**

# Università degli Studi di Pavia

**31a Riunione Nazionale**

***“A. Castellani”***

#### dei Dottorandi

**di Ricerca**

**in Discipline Biochimiche**

**(31st *“A. Castellani”* Meeting of PhD students in biochemical sciences)**

**BRALLO DI PREGOLA (Pavia)**

**3 - 7 June 2019**

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PROGRAM

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# SCIENTIFIC AND ORGANIZING COMMITTEE

Cesare Balduini

Vittorio Bellotti

Ilaria Canobbio

Gianni Francesco Guidetti

Giampaolo Minetti

Chiara Paganini

Maria Enrica Tira

Francesca Tonelli

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Maurizia Valli

Mauro Magnani

Raffaele Porta

Annalisa Santucci

**SCIENTIFIC AND ORGANIZING SECRETARIAT**

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**MONDAY, JUNE 3rd, 2019**

**17.00-20.00** Registration & check-in

**20:00 DINNER**

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**TUESDAY, JUNE 4th, 2019**

**8.50-9.00** Opening remarks

Chair: Vittorio Bellotti

**9.00-9.40** Prof. LUIGI PALMIERI (Bari)   
Mitochondria and aging

**9.40-10.00** Francesco Capriglia (Bari)  
Elucidating the molecular mechanisms underlying the biological activity of rescuing peptides in MELAS mitochondrial disease

**10.00-10.20** Laura Ioannilli (Roma)  
FoxO1 in the mitochondria of adipose tissue: impact on cell response to nutrient availability

**COFFEE BREAK**

Chair:

**10.50-11.10** Maria Tolomeo (Bari)  
Alteration of flavin homeostasis in neuromuscular disorders and cancer

**11.10-11.30** Roberta Cavagna (Milano)  
Capture next generation sequencing enhances the identification of clonal rearrangements as markers in acute lymphoblastic leukemia patients

**11.30-11.50** Maddalena Cagnone (Pavia)  
A pilot study to investigate the balance between proteases and α1-antitrypsin in lung transplant patients

**11.50-12.10** Jessica Canino (Pavia)  
Role of proline-rich tyrosine kinase Pyk2 in thromboinflammation

**LUNCH**

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Chair:

**15.00-15.40** Prof. FEDERICO BUSSOLINO (Torino)   
Transcription factor EB reprograms tumor microenvironment by a lysosomal/autophagy -independent pathway

**15.40-16.00** Chiara Maria Manega (Milano)  
12(S)-hydroxyeicosatetraenoic acid downregulates monocyte-derived macrophage efferocytosis: new insights in atherosclerosis

**16.00-16.20** Alice Franchi (Genova)  
Bioactive molecules isolated from olive pomace extract protect murine cortex neurons from NMDA-mediated cell death

**COFFEE BREAK**

**17.00-19.00 POSTER PRESENTATION FOLLOWED BY POSTER VIEWING - SESSION A**Authors should place their posters on the provided boards and present them in front of the audience with 2-3 slides for a total of 5 min including discussion.

**20:00 DINNER**

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**WEDNESDAY, JUNE 5th, 2019**

Chair:

**9.00-9.40** Prof. FABRIZIO TAGLIAVINI (Milano)  
Molecular subtypes of Alzheimer's disease

**9.40-10.00** Giulia Faravelli (Pavia)  
Using *Caenorhabditis elegans* and INVAPP/Paragon automated system for amyloid drug screening

**10.00-10.20** Rebecca Piccarducci (Pisa)  
α-synuclein heterocomplexes in red blood cells as potential diagnostic biomarkers in Alzheimer’s disease

**COFFEE BREAK**

Chair:

**11.00-11.20** Erika Di Biase (Milano)   
The oligosaccharide of GM1 ganglioside acts as a neurotrophic agent for neuronal development

**11.20-11.40** Giovanna Menduti (Roma)  
Response to oxidative stress of neuronal cells overexpressing ALDH5A1 gene variants

**11.40-12.00** Giulia Lunghi (Milano)  
GM1 oligosaccharide modulation of calcium signaling in neuronal functions

**LUNCH**

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Chair:

**15.00-15.40** Prof. FRANCESCO BONOMI (Milano)  
Nanoparticles and solid systems: their effects on protein structure and function

**15.40-16.00** Valentina Bordoni (Sassari)  
Artemisia silver nanoparticles: new opportunities to fight cancer

**16.00-16.20** Michela Lapi (Milano)  
Biochemical and structural characterization of Nuclear Factor I X (NFIX)

**COFFEE BREAK**

**17.30-18.30** **Dottorandi di Pavia  
Il lato oscuro della ricerca biomedica**

**20:00 DINNER**

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**21.00-23.00** Serata caminetto:  
Luca Vanzago e Raffaele Porta:  
**Un colloquio tra Biochimica e Filosofia**

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**THURSDAY, JUNE 6th, 2019**

Chair:

**9.00-9.40** Prof. MARCO MORACCI (Napoli)  
Discovery of carbohydrate active enzymes from (hyper)thermophiles: how to exploit natural diversity in biotechnology

**9.40-10.00** Maria Elena Laugieri (Genova)  
Study and characterization of glycosyltransferases from *Paramecium bursaria Chlorella virus – 1*

**10.00-10.20** Maria Elena Canali (Milano)  
The role of sialidase NEU3 in the cardiac response to ischemia and reperfusion injury

**COFFEE BREAK**

Chair:

**11.00-11.40** Prof. LARS KAESTNER (Saarbrücken)  
Something (new) about proteins and cells

**11.40-12.00** Francesca Grassi Scalvini (Milano)  
Proteomic and behavioural analysis of thermal stress effects on Zebrafish brain

**LUNCH**

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Chair:

**15.00-15.40** Prof. RAFFAELE PORTA (Napoli)  
Plastics revolution, pollution and substitution

Prof. MOHAMMED SABBAH (Napoli)  
Polysaccharide and protein-based bioplastics

**15.40-16.00** Ferdinando Sansone (Napoli)  
Characterization of a new beta-galactosidase from thermophilic Bacillus coagulans strain MA-13 for biotechnological applications

**16.00-16.20** Vittoria Cicaloni (Siena)  
Interactive Alkaptonuria Database: investigating clinical data to improve patient care

**COFFEE BREAK**

**16.30-18.30 POSTER PRESENTATION FOLLOWED BY POSTER VIEWING - SESSION B**Authors should place their posters on the provided boards and present them in front of the audience with 2-3 slides for a total of 5 min including discussion.

**20:00 DINNER**

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**FRIDAY, JUNE 7th, 2019**

Chair:

**9.30-10.10** Prof. ANNALISA SANTUCCI (Siena)  
Alkaptonuria: the history, the story and the research on the first human genetic disease

**10.15** **CLOSING REMARKS**

**COFFEE BREAK AND DEPARTURE**

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**POSTER SESSION A, TUESDAY, JUNE 4th 2019, 17:00-19:00**

1. **Mariangela Jessica Alfeo (Pavia):** Iron-regulated surface determinant B (IsdB) mediates Staphylococcus aureus adherence to vascular endothelium through von Willebrand factor (vWF)
2. **Ilaria Artusi (Padova):** The extracellular EpiP serine protease from *Staphylococcus aureus* proteolytically activates prothrombin and triggers blood coagulation: implications in septic thrombosis
3. **Stefano Barbera (Siena):** Rab5C regulates the CD93/Multimerin-2/β1 integrin complex trafficking during endothelial cell adhesion and migration
4. **Serena Castelli (Roma):** Pseudo-hypoxia induction by Adipose Triglyceride Lipase (ATGL) in Hela cells
5. **Francesca Maria Castiglia (Siena):** Synthesis, efficacy and cytotoxicity of the antimicrobial peptide SET-M33: analysis of the best counter ion
6. **Carmela Piazzolla (Bari):** Role of mitochondrial uncoupling protein-2 in pancreatic ductal adenocarcinoma tumorigenesis and maintenance
7. **Deborah Pietrobono (Pisa):** Adenosine promotes glioblastoma aggressiveness modulating the epithelial-mesenchymal transition
8. **Simona Saporiti (Milano):** IgG1 effector functions: elucidation of glycans role by in silico structural analysis
9. **Paolo Maria Soprano (Pavia):** Exploiting natural silk protein for bioengineering bone marrow niche for ex vivo platelet generation
10. **Mauro Vismara (Pavia):** Analysis of the effects of platelet-derived microparticles on a breast cancer cell line
11. **Carolina Zara (Urbino):** Increase of intracellular glutathione (GSH) by I-152, a conjugate of N acetyl-cysteine (NAC) and β-mercaptoethylamine (MEA)

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**POSTER SESSION B, THURSDAY, JUNE 6th, h 17:00-19:00**

1. **Clementina Barone (Napoli)** Characterization of p57kip2/*CDNK1C* mutations identified in Beckwith-Wiedemann syndrome
2. **Luca Bombardi (Verona):** Molecular and structural properties of centrin 2 from *Toxoplasma gondii*
3. **Tatiana Carrozzini (Milano):** Protective effects of coffee metabolites against oxidative stress
4. **Silvia Cotti (Pavia-Ghent):** The effects of phosphorous deficiency and oversupply: vertebral column malformations and bone mineralization in wild-type and osteogenesis imperfecta zebrafish mutants
5. **Federico D’Alessio (Roma):** Characterization of YggS, a protein involved in pyridoxal 5’-phosphate transport and homeostasis
6. **Nadia Garibaldi (Pavia):** Cellular homeostasis in murine osteoblasts from two osteogenesis imperfecta models is rescued by phenylbutyric acid
7. **Laura Leoni (Pavia):** Characterization of OI type XIV zebrafish models
8. **Sonia Spinelli (Genova):** ABA stimulates insulin-independent glucose uptake in L6 rat myoblasts and in mouse skeletal muscle via AMPK activation
9. **Giovanni Stelitano (Pavia):** Targeting iron uptake pathway for the development of novel antitubercular drugs
10. **Filippo Tasini (Urbino):** Characterization of the ubiquitin system in primary and metastatic gastric cancer cell lines
11. **Elisa Vignali (Varese):** A new bacterial lignin peroxidase: recombinant overexpression and biotechnological applications
12. **Daniela Cristina Vuoso (Napoli):** Anticancer activity of Annurca apple polyphenol extract in triple negative breast cancer cells is mediated by ROS/JNK signaling axis

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