

17th PhD meeting

TECSBI

2025

22-24 UNIVERSITY OF
SETTEMBRE MILANO-BICOCCA

VILLA CAGNOLA - Via Cagnola, 17/19 - 21045 GAZZADA SCHIANNO (VA)



SCUOLA DI DOTTORATO
BICOCCA



PROGRAM

Monday 22

14.00-14.10 Opening Day 1

14.10-14.30 **s1. Mirko Frigerio Verga ***

Overcoming enzyme production instability in *Escherichia coli* for application in the agropharmaceutical field

14.30-14.50 **s2. Marco Barreca**

Longitudinal Clustering of TNBC patients using transcriptomics data: a trajectory distance-based approach

14.50-15.10 **s3. Elisa Toini**

Phylogenetic approach reveals plants with high medicinal potential

10.10-10.30 **s4. Tommaso Sassi ***

Development of an *Escherichia coli* cell-factory for the industrial production of 5-methylpyrazine-2-carboxylic acid

15.30-16.30 Poster Session 1

16.30-17.30 **ADI**

Meeting with the PhD students

Tuesday 23

8.50-9.00 Opening Day 2

9.00-9.20 **s5. Angela Maria Giada Giovenale**

Neurogenesis in Smith-Magenis Syndrome: When Brain Development Go Awry

9.20-9.50 **s6. Giulia Ghisleni**

A Participatory and Evolutionary Approach to Urban Microbiome Research: Reuniting Microbiology and Society

9.50-10.10 **s7. Martina Dramis ***

Optimizing culture conditions for biomanufacturing bacterial cellulose and tailoring its functionalization

10.10-10.30 **s8. Lorenzo Taglietti**

L-Iduronic Acid-Type 1-N-Iminosugars as Pharmacological Chaperones for the Rescue of α -L-Iduronidase in Mucopolysaccharidosis Type I

10.30-11.30 Coffee Break +

Poster Session 2

11.30-11.50 **s9. Miriam Kuku Afanga ***

Identification of miRNA-based biomarkers predictive of lung cancer treatment response, and mechanisms involved in lung cancer progression.

11.50-12.10 **s10. Francesca Misitano ***

Modulation of Ca^{2+} handling by combined administration of Istaroxime and Levosimendan in mouse ventricular cardiomyocytes

12.10-12.30 **s11. Stefano Bianchini**

Anticancer properties of plant extracts on colorectal cancer cell lines

12.30-12.50 **s12. Alessia Metallo**

Istaroxime Prevents AngiotensinII-Induced Remodeling in Pulmonary Artery Smooth Muscle Cells

12.50-14.10 Lunch Break

14.10-15.00 **is1. Francesco Moccia**

UNIMOL
A journey through intracellular Ca^{2+} signaling: understanding physiology to interfere with pathology

15.00-15.20 **s13. Alice Armanni**

The built environment and microbiome in human health - insights from everyday life and the hospital environment

15.20-15.40 **s14. Alice Italia ***

Functional impact of Toll-like Receptor 4 (TLR4) modulation in lung fibrosis-associated fibroblasts

15.40-16.00 **s15. Gergo Borka**

Evaluating Chemotherapeutic Drug Induced Gastro-intestinal Toxicity (DGIT) using a multi-compartmental Gut-on-Chip Model

16.00-16.30 Coffee Break

16.30-16.50 **s16. Chiara Florindi**

"Amphiphilic membrane-targeted phototransducers for non-genetic optical stimulation of cardiac bioelectricity"

16.50-17.10 **s17. Edvige Vulcano**

Interrogating Amyotrophic Lateral Sclerosis Signatures in TDP-43 G376D human induced Neural Stem Cells

17.10-17.30 **s18. Rosa Ranalli**

Cities for pollinators: supporting biodiversity through urban habitats

17.30-17.50 **s19. Laura Beretta ***

Early Insights, Lasting Impact: Mechanistic Enzymology for Characterizing Hit Compound Mechanisms of Action

Wednesday 24

8.50-9.00 Opening Day 3

9.00-9.20 **s20. Serena Seminara**

Investigating the involvement of the Wiskott-Aldrich Syndrome Protein (WASp) in the function of brain-resident immune cells

9.20-9.50 **s21. Maria Chiara Barbera**

Hijacking the clock: Epigenetic age rewiring via miR-29 modulation

9.50-10.10 **s22. Alessia Lambiase**

Neuroprotective effects of plant bioactive compounds on eukaryotic models of Parkinson's disease

10.10-10.30 **s23. Susanna Perotti**

Exploring the Microbial Biodiversity of Kombucha for Novel Probiotic and Postbiotic Candidates

10.30-11.30 Coffee Break +

Poster Session 3

11.30-11.50 **s24. Giorgia Ruotolo**

Modeling Primary Cilium Defects in Joubert Syndrome using iPSC-Derived Neural Stem Cells

11.50-12.10 **s25. Barbara Zerbato**

PGM3 Inhibition as a Novel Strategy to Induce BRCAness in HR-Proficient Pancreatic Cancer Cells

12.10-12.30 **s26. Francesco Abbiati**

Bioactive compounds and healthy aging: search for new nutraceutical compounds through the experimental model of chronological lifespan in yeast

12.30-12.50 **s27. Beatrice Colombo**

Wild bees adaptation to urbanization: a multi-Omic approach to implement innovative conservation and ecological transition strategies

12.50-14.10 Lunch Break

COLOR CODE

 Industrial Biotech

 Health and Biodiversity

 Biomedical and Health

* To attend these sessions, participants are required to sign a confidentiality agreement to ensure that all research presented remains protected and is not shared without authorization

 Online presentation

14.10-15.00 **is2. Luca De Gioia**

UNIMIB

"Life Is good" and other misconceptions. Breve itinerario tra i luoghi comuni e sorprendenti scoperti

15.00-15.20 **s28. Maria Rita Chelazzi**

Investigating the role of the SOWAHC-DIAPH1 complex in physiology and cancer

15.20-15.40 **s29. Luca Moretti**

Natural products targeting Amyloid- β aggregation: spectroscopic and biophysical approaches for Alzheimer's disease prevention

15.40-16.00 **s30. Maddalena Bracchi**

Design and 3D fabrication of functional meniscal scaffolds

16.00-16.30 Coffee Break

16.30-16.50 **s31. Francesco Lapi**

Multi-omics data analysis to characterize sex-specific metabolic shifts during embryo development

16.50-17.10 **s32. Lidia Favaretto**

The evaluation of Nature-based Solutions through a life-cycle thinking approach: key challenges and opportunities

17.10-17.30 **s33. Flavio Corallo** *

Stn1 supports Mec1 function in protecting stalled replication forks from degradation

POSTER SESSIONS

Mon 22, 15.30-16.30

Poster Session 1

p1. **Andrea Banfi**

Harnessing Mirror-Image Peptides: Nanoparticle Vectors for Nucleic Acid Delivery in Cancer Treatment

p2. **Beatrice Pizzelli**

The role of *Collinsella aerofaciens* in Non-Communicable Diseases: potential implication in pathogenesis through gut-liver axis activation

p3. **Fabio Angelini**

Lactic Acid Bacteria, Aromatic Amino Acids and Human Health: Two Functional Approaches

p4. **Francesca Vincenti**

Resolving HSC heterogeneity with integrated single-cell Multi-Omics

Tue 23, 10.30-11.30

Poster Session 2

p5. **Francesco Bellusci** *

Synthetic biology applied to the biomanufacturing of plant natural products of pharmaceutical interest

p6. **Hind Moukham** *

Glabranin as a natural modulator of AMPK signaling and lipid metabolism in NAFLD

p7. **Linda Molteni**

Better Together: NMR Spectroscopy and Other Biophysical Tools for the Comprehensive Characterization of Prenylflavonoids Anti-Amyloidogenic Properties

p8. **Margherita Finazzi**

Design and characterization of an in vitro reconstructed human gut microbiota to model microbe-microbe and host-microbe reciprocal interactions

Wed 24, 10.30-11.30

Poster Session 3

p10. **Radhika Dhekane**

Multi-factor fluid-dynamic model of the tumor microenvironment

p11. **Stefano Cervellera**

Multidimensional Integrated Quantitative Approach To Assess Safety And Sustainability Of Nanomaterials In Real Case Life Cycle Scenarios Using Nanospecific Impact Categories

p12. **Stefano Cozzi**

Expanding progenitor-like cells via CN-NFAT inhibition to uncover additional differentiation mechanisms

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