

12TH PHD MEETING SEPTEMBER 23-25, 2020

Dottorato di Ricerca
in
Tecnologie Convergenti per i Sistemi Biomolecolari
(TeCSBi)
Dipartimento di Biotecnologie e Bioscienze
Università degli Studi di Milano Bicocca

<https://www.btbs.unimib.it/it/corso-dottorato>



ORGANISING COMMITTEE

Paola Branduardi

PhD program Coordinator

Dario Pescini

PhD program Vice-Coordinator

Antonio Marsella

PhD student, XXXIII cycle

Stefano Bertacchi

PhD student, XXXIII cycle

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PhD student, XXXIII cycle

Giulia Agostinetti

PhD student, XXXIV cycle

Letizia Maestroni

PhD student, XXXV cycle

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Organizing Secretariat

<https://elearning.unimib.it/course/view.php?id=28301>

Program

Wednesday 23rd of September 2020

<https://elearning.unimib.it/mod/webexactivity/view.php?id=493190>

08:45 – 09:00 *Opening and Welcome:*
Paola Branduardi, PhD program Coordinator

Session I – Evolution: changes in Nature – Part 1

/ PhD student's presentations

Chairs: Stefano Bertacchi, Fabio Rizza

- 09:00 – 09:50 *Invited lecture:*
T01. Manuela Sironi (IRCCS E. Medea, Bosisio Parini, Lecco)
Human herpesvirus genetic diversity and host adaptation
-
- 09:50 – 10:15 *PhD student's presentation: 2nd Year*
S01. Stefania Blasa (University of Milano-Bicocca)
Remote thermal stimulation: a scalable method to induce cell differentiation
-
- 10:15 – 10:40 *PhD student's presentation: 3rd Year*
S02. Lorenzo Guzzetti (University of Milano-Bicocca)
African leafy vegetables are sources of bioactive phytochemicals and micronutrients
-
- 10:40 – 11:10 *Coffee Break*
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- 11:10 – 11:35 *PhD student's presentation: 3rd Year*
S03. Alessandra Lodrini (University of Milano-Bicocca)
A novel human in-vitro model to study and treat aging-induced cardiac dysfunction
-
- 11:35 – 12:00 *PhD student's presentation: 2nd Year*
S04. Riccardo Milanese (University of Milano-Bicocca)
Protein Metabolite interaction and Flux sensing control Snf1/AMPK activity.
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- 12:00 – 12:25 *PhD student's presentation: 3rd Year*
S05. Antonio Marsella (University of Milano-Bicocca)
Role of Rif2 in the regulation of the checkpoint response at DNA double-strand breaks
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- 12:30 – 13:30 *Lunch Break*

Session II – Evolution: changes in Nature – Part 2

/ PhD student's flash poster presentations

Chairs: Federico Fontana, Federica Bovio

- 13:30 – 14:20 *Invited lecture:*
T02. Telmo Pievani (University of Padova)
The Darwinian lesson of COVID19
-

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14:20 – 14:40

PhD student's flash poster presentation: 1st Year

F01. Martina Arici (University of Milano-Bicocca)

New SERCA2a stimulator compounds restore impaired SERCA2a function in a rat model of diabetic cardiomyopathy

link to poster session:

<https://campus-unimib.webex.com/campus-unimib-en/j.php?MTID=m59c5d80a38247986fac0a9411b40cd3d>

F02. Greta Bianchi (University of Milano-Bicocca)

Charge patterning and phase separation propensity in IDPs: is there a possible interplay?

link to poster session:

<https://campus-unimib.webex.com/campus-unimib-en/j.php?MTID=m681adf06e386fa9bb1a47b7da9244a5f>

F03. Jennifer Fernandez (Institute Mario Negri, Milano)

Characterization of the influence of geometry and surface functionalization on bio-nano interaction in both physiological and pathological condition

link to poster session:

<https://campus-unimib.webex.com/campus-unimib-en/j.php?MTID=m0766c7d765299bc8a4ea40d63f6654e0>

F04. Carlo Rinaldi (University of Milano-Bicocca)

Dissecting the role of the Ku complex in the DNA damage response

link to poster session:

<https://campus-unimib.webex.com/campus-unimib-en/j.php?MTID=mee38d88bc2c56c63e9405ec2f30ace16>

14:40 – 15:40

Poster Session in separated rooms

Session III – PhD student's presentations

Chairs: Federico Fontana, Federica Bovio

15:40 – 16:05

PhD student's presentation: 3rd Year

S06. Jessica Frigerio (FEM2 Ambiente - University of Milano-Bicocca)

Towards food traceability: discovering biomolecular technologies for complex food products

16:05 – 16:30

PhD student's presentation: 2nd Year

S07. Erika Casari (University of Milano-Bicocca)

Dual role for Dpb4 in DNA double strand break repair: regulation of end resection and DNA damage checkpoint

16:30

End of Day 1

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Thursday 24th of September 2020

<https://elearning.unimib.it/mod/webexactivity/view.php?id=493204>

**Session IV – Evolution: Mechanisms and Laboratory applications – Part 1
/ PhD student's presentations**

Chairs: Jessica Frigerio, Alfredo Mento

09:00 – 09:50	<i>Invited lecture:</i> T03. Roberto Defez (Institute of Biosciences and Bioresources, Napoli) Bacteria feeding plants helps life on the planet
09:50 – 10:15	<i>PhD student's presentation: 3rd Year</i> S08. Pooja Jayaprakash (University of Milano-Bicocca) Tailoring non-Saccharomyces yeast cell factories to produce organic acids as products of interest
10:15 – 10:40	<i>PhD student's presentation: 2nd Year</i> S09. Giulia Agostinetti (University of Milano-Bicocca) Integrating data mining tools to explore species community patterns from HTS data
10:40 – 11:10	<i>Coffee Break</i>
11:10 – 11:35	<i>PhD student's presentation: 3rd Year</i> S10. Fabio Rizza (University of Milano-Bicocca) Structural basis of Flavin-Based Electron Bifurcation: a molecular dynamics approach
11:35 – 12:00	<i>PhD student's presentation: 2nd Year</i> S11. Nicola Tommasi (University of Milano-Bicocca) Landscape drives changes in pollinators communities: new insights revealed by a multidisciplinary approach
12:00 – 12:25	<i>PhD student's presentation: 3rd Year</i> S12. Stefano Bertacchi (University of Milano-Bicocca) Enzymatic hydrolysis of residual biomasses for carotenoids production by <i>Rhodospiridium toruloides</i>
12:30 – 13:30	<i>Lunch Break</i>

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Session V – Evolution: Mechanisms and Laboratory applications – Part 2
/ PhD student's flash poster presentations

Chairs: Lorenzo Guzzetti, Chiara Brambati

- 13:30 – 14:20 *Invited lecture:*
T04. Massimo Delledonne (University of Verona)
GENOME (sequencing) EVOLUTION
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- 14:20 – 14:40 *PhD student's flash poster presentation: 1st Year*
F05. Letizia Maestroni (University of Milano-Bicocca)
Glucosinolates as nutraceuticals: process optimization and
scale-up of bio-based microbial production of glucobrassicin
link to poster session:
<https://campus-unimib.webex.com/campus-unimib-en/j.php?MTID=m7dc3bf0b495e303b02778b159015c4c1>
- F06. Sara Bertuzzi** (University of Milano-Bicocca)
Molecular recognition of histo-blood group antigens by
human galectin-1: an NMR view
link to poster session:
<https://campus-unimib.webex.com/campus-unimib-en/j.php?MTID=m6d336517b20486241dfcbfd8707aa888>
- F07. Luca Mastella** (University of Milano-Bicocca)
Development of a sustainable bioprocess for Vitamin B9
production
link to poster session:
<https://campus-unimib.webex.com/campus-unimib/j.php?MTID=mbde8737b075a5789c5c728b7e2acc72e>
- F08. Davide Panzeri** (University of Milano-Bicocca)
Vigna unguiculata L. Walp. seeds as source of bioactive
compounds
link to poster session:
<https://campus-unimib.webex.com/campus-unimib-en/j.php?MTID=m2e0efd7d5c4dfb814f63807605e465c1>
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- 14:40 – 15:40 *Poster Session in separated rooms*

Session VI – PhD student's presentations

Chairs: Lorenzo Guzzetti, Chiara Brambati

- 15:40 – 16:05 *PhD student's presentation: 3rd Year*
S13. Luis Ferraz (University of Milano-Bicocca)
Membrane engineering to improve *Saccharomyces cerevisiae*
robustness towards organic acids
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- 16:05 – 16:30 *PhD student's presentation: 2nd Year*
S14. Alessandra De Gianì (University of Milano-Bicocca)
Impact of prebiotics and probiotics on gut microbiota and
human health
-
- 16:30 *End of Day 2*
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Friday 25th of September 2020

<https://elearning.unimib.it/mod/webexactivity/view.php?id=493210>

Session VII – PhD student’s presentations

Chairs: Alessandra Lodrini, Luis Ferraz

- 09:00– 09:25 *PhD student’s presentation: 2nd Year*
S15. Sofia Magli (University of Milano-Bicocca)
Design and synthesis of new bio-functional materials for 3D models and tissue engineering applications
-
- 09:25 – 09:50 *PhD student’s presentation: 3rd Year*
S16. Federico Fontana (University of Milano-Bicocca)
Stepping towards the future of tissue engineering: in-silico modeling of cell-biomaterial interactions
-
- 09:50 – 10:15 *PhD student’s presentation: 2nd Year*
S17. Daniele D’Arrigo (Lugano Hospital – University of Milano-Bicocca)
Anti-inflammatory and regenerative potential of extracellular vesicles for osteochondral repair
-
- 10:15 – 10:40 *PhD student’s presentation: 3rd Year*
S18. Chiara Brambati (Diasorin spa)
Development of innovative Q-LAMP assay for direct detection and amplification of Flu A/B and RSV genomes
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- 10:40 – 11:10 *Coffee Break*
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- 11:10 – 11:35 *PhD student’s presentation: 2nd Year*
S19. Fabrizio Beltrametti (Actygea srl)
Microorganisms and hydrocarbon pollution: the strategy of biosurfactant producers
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- 11:35 – 12:00 *PhD student’s presentation: 3rd Year*
S20. Alfredo Mento (Diasorin spa)
Unconventional purification strategies of reagents for immunodiagnostic kits
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- 12:00 – 12:25 *PhD student’s presentation: 2nd Year*
S21. Valentina Artusa (University of Milano-Bicocca)
Unraveling the Contribution of Melanoidins to the Anti-inflammatory Activity of Roasted Coffee Extracts
-
- 12:30 – 13.30 *Lunch Break*

Session VIII – PhD student’s presentations and flash poster presentations

Chairs: Antonio Marsella, Pooja Jayaprakash

- 13:30 –13:55 *PhD student’s presentation: 2nd Year*
S22. Gloria Campioni (University of Milano-Bicocca)
Mammary carcinoma spheroids for the study of cancer metabolic plasticity and stemness properties
-
- 13:55 –14:20 *PhD student’s presentation: 2nd Year*
S23. Federica Bovio (University of Milano-Bicocca)
Evaluating cadmium toxicity on LUHMES cell line

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PhD student's flash poster presentation: 1st Year

F09. Lucia Morelli (University of Milano-Bicocca)

Role of SP-D protein during SARS-CoV-2 infection for the development of a therapeutic treatment

link to poster session:

<https://campus-unimib.webex.com/campus-unimib-en/j.php?MTID=m2761d17def08415d6af57ad60be86cc5>

F10. Roberta Torinesi (University of Milano-Bicocca)

DALIS in aging, inflammation and neurodegeneration

link to poster session:

<https://campus-unimib.webex.com/campus-unimib-en/j.php?MTID=m77adf7ed39a37d240c6fd81518765c0c>

F11. Stefania Garbujo (University of Milano-Bicocca)

Design and development of engineered biomimetic nanoparticles for the investigation of cross-talk between cancer associated fibroblasts (CAFs) and cancer cells

link to poster session:

<https://campus-unimib.webex.com/campus-unimib-en/j.php?MTID=mbae2b8fc9d26ec42bcbf8a4140e82e12>

F12. Lorenzo Rossi (University of Milano-Bicocca)

Engineered extracellular matrix biomimetics for advanced 3D in vitro models

link to poster session:

<https://campus-unimib.webex.com/campus-unimib-en/j.php?MTID=m47a7c05e7817763f272c659836d512c3>

F13. Alex Pessina (University of Milano-Bicocca)

Glutamate as a potential substrate for trehalose production in yeast

link to poster session:

<https://campus-unimib.webex.com/campus-unimib-en/j.php?MTID=m10a63ca300a4f00cc5c2a781aa63ddb>

14:45 – 15:45 *Poster Session in separated rooms*

Session IX – Round Table: Resilience

Chair: **Simona Sacchi** (University of Milano-Bicocca)

Resilience, the capacity to survive, adapt, and grow no matter what kinds of chronic stresses and acute shocks you experience

Invited speakers:

15:45 – 16:45

Piero Pellizzaro (Municipality of Milano)

Agnese Collino (Fondazione Umberto Veronesi, Milano)

Gianfranco Pacchioni (University of Milano-Bicocca)

16:45 – 17:00

Poster award and concluding remarks:

Paola Branduardi, PhD program Coordinator

17:00

End of Day 3