



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

DEPARTMENT
OF PHARMACY
AND BIOTECHNOLOGY

PhD program in Cellular and Molecular Biology

PhD coordinator: Anna Maria Porcelli

19° PhD Workshop

4, 5, 8, 9 September 2025

Aula Magna, Via della Beverara 123, Bologna

and

Online Via Teams (link to be provided)

Organizers: A.M. Porcelli, B. Zambelli, A. Danielli

Thursday, September 4, 2025

14:00 — *Greetings from the PhD coordinator*

Session 1 - Chairs: Longanesi, D'Silva

14:15 — **Mattia Niccolò Li Volsi** (39°, Vannini / Roncarati)

Functional and structural study of different sRNAs controlled by NikR and Fur in Helicobacter pylori

14:35 — **Monica Procacci** (38°, Capranico / Miglietta)

Dissecting the immunogenic potential of G-Loop-Associated Micronuclei in Genome Instability

14:55 — **Matteo Bergonzoni** (39°, Perini / Lieberman, The Wistar Institute)

EBV-specific Responses to Decitabine in Epstein-Barr Virus Associated Gastric Carcinomas

17:35 — **Alena Kaltenbrunner** (38°, Danielli / Costantini) online

Engineering Phages for Targeted Cancer Therapy: Insights into immune interactions and 3D model penetration

15:35 — **Iacopo Gherardi** (38°, Porcelli / Ghelli – Iommarini)

TMEM65 interactome reveals involvement in mitochondrial inner membrane proteins biogenesis



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15:55 — Coffee break

Session 2 - Chairs: Peppi, Lopo

16:25 — Marco De Maria (40°, Brandimarti / Menotti – De Biase)

Cellular Model Construction for the Characterization of Uncertain Significance Variants

16:40 — Fabrizio Bertolazzi (38°, Perini / Schug, The Wistar Institute)

Identifying Acetate Transporters through a CRISPR Dropout Screen

17:00 — Noemi Carosella (39°, Zambelli / Ciurli)

Characterization of the C-terminal region of NDRG1, a protein involved in cancer development

17:20 — Elisa Dell'Anna (38° PNRR, Bernardoni / Perini)

Ribonucleoside diphosphate reductase small subunit (RnrS) downregulation in Drosophila post-mitotic neurons cells demonstrated the essential role of the enzyme for Central Nervous System activity

17:40 — Giulia Pantella (39°, Perini / Murphy, The Wistar Institute)

PADI4 Citrullinates p53 and Redirects Its Binding to Non-Canonical Target Genes

18:00 — Umberto Genchi (40°, Cappelletti / Roncarati)

Investigating the role of DNA methylation in Rhodococcus opacus PD630, a bacterial strain with biotechnological relevance

Friday, September 5, 2025

Session 3 - Chairs: Franciosi, Li Volsi

14:00 — Corrado Selva (40°, Francia/ Ghelli)

Analysis of the hydration shell in protein/disaccharide glassy matrices. An FTIR study.

14:15 — Mattia Longanesi (38° PNRR, Cavaliere/ Perini)

Study of natural insect antagonists and associated symbionts aimed at identifying bioinsecticides



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14:35 — Emma Coschina (38° PNRR, Angelini / Ravegnini - Capranico)
Generation and Characterization of 3D bioprinted human endometrial cancer models

14:55 — Ettore Lopo (39° PNRR, Cappelletti / Sauro)
Biodiversity and biotechnological potential of microorganisms inhabiting pristine and contaminated subterranean environments

15:15 — Martina Tomirotti (39°, Perini / Weiner, The Wistar Institute)
Integrating in silico humanization and DNA delivery to engineer anti-influenza monoclonal antibodies for improved in vivo expression

15:35 — Federica Severi (38°, Perini, Claiborne The Wistar Institute)
Multivalent CAR T cell therapy demonstrates potent and durable control of HIV escape and replication in BLT humanized mice

15:55 — Coffee break

Session 4 - Chairs: Cimadom, Gherardi

16:25 — Loris Meoni (40°, Capranico / Marinello)
Transcription/Replication Conflicts and RNA Pol II backtracking in cancer genome instability

16:40 — Mario Marino (39°, Perini / Liberman, The Wistar Institute)
Characterization of Viral-Host Hybrid Transcripts in EBV-Positive Cells Using Long-Read Sequencing

17:00 — Francesco Flandi (38°, Oggioni / Parolin)
*Testing host specificity of *Klebsiella pneumoniae* infection in humans and swine*

17:20 — Ginevra Marie Eloise Peppi (39° PNRR, Zaffagnini / Trost)
Study of a new class of plant enzymes involved in redox homeostasis with still unknown functional plasticity using biological integrated approaches

17:40 — Manon Elise C Libotte (38° PNRR, Zuccheri / Monti - Massenzio)
Self-assembled DNA nanostructure applied on immunomodulation of microglia in neuroinflammation

18:00 — Ekaterina Shipilova (40°, Perini / Montaner, The Wistar Institute)
MOUD Alters the Distinctive Patterns Associated with HIV Infection and Suppressive ART



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Monday, September 8, 2025

Session 5 - Chairs: Carosella, Pappagallo

14:00 — Chiara D'Silva (39°, Massenzio / Monti)

Characterization of Extracellular Vesicles in Alzheimer's Disease: Focus on EVs-derived miRNAs as Inflammatory Modulators

14:20 — Kelvin Maduabuchi Okpokpo (38°, Perini / Sarma, The Wistar Institute)

Role of ATRX and CTCF in Chromatin Architecture and Histone Variant Dynamics

14:40 — Anna Clara Capuzzi (40°, Sparla / Gurrieri)

Preliminary Studies on the Interaction Between Thioredoxin and Phosphoribulokinase

14:55 — Leonardo Cimadom (39°, Perini / Chemello)

MYCN levels reprogram the interactome of E2F3 in Neuroblastoma

15:15 — Tânia Raquel Cunha Alves (39°, Monti / Musilek)

The Impact of Circadian Rhythms on Neural Stem Cells in Alzheimer's Pathogenesis

15:35 — Sofia Ranieri (40°, Zambelli / Mazzei)

Biochemical and Structural Characterization of Viral Proteases and Metalloproteases

15:50 — Coffee break

Session 6 - Chairs: Dell'Anna, Guerra

16:20 — Filippo Sgolacchia (40°, Perini / Villanueva, The Wistar Institute)

Identification of novel therapeutic targets to prevent growth and metastasis in acral melanoma

16:35 — Asia Pizzi (38° PNRR, Vitali / Patrignani)

*In vitro gut model to evaluate the impact of the GABA-producing *Levilactobacillus brevis* CRAI on human microbiota in eubiosis and dysbiosis*



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16:55 — Lorenzo Serra (39°, Perini / Price, The Wistar Institute)
Effect of splicing inhibitors on Adenovirus RNA processing and infection

17:15 — Cecilia Franciosi (39° PNRR, Monti / Alberini)
Angelman Syndrome: A Study Of Neuronal Cultures Derived From Patient iPSCs

17:35 — Stefania Di Silvestro (38 ° PNRR, Cappelletti (PNRR), Franchi)
Bacterial functionalization of biochar as a sustainable approach for metal(loid) bioremediation

Tuesday, September 9, 2025

Session 7 - Chairs: Flandi, Procacci

14:00 — Clelia Manna (38° PNRR, Roncarati / Vannini)
Characterization of engineered bacterial outer-membrane vesicles (OMVs) and their effect as specific carriers for RNA-based therapy against osteosarcoma

14:20 — Emanuel Forciniti (38°, Perini / Sarma, The Wistar Institute)
Interrogating the role of ADNP-HP1 and ADNP-CHD4 interactions in neural development

14:40 — Martina Casciaro (40°, Bacchelli / Maestrini)
Genomics of Autism Spectrum Disorder

14:55 — Claudio Pino (38° PNRR, Musiani / Ghelli) online
Precision medicine in cancer: drug repurposing strategies targeting DNA polymerase ϵ for cancer therapy

15:15 — Martina Santulli (38° PNRR, Perini / Monti) online
Role of the PRR12 Factor in Neurodevelopmental Visual Disorders (NVDs)

15:35 — Pietro Demurtas (40 ° PNRR, Fioresi / Perini)
Deep-Learning for analysis of sequential biological data

15:50 — Coffee break



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Session 8 - Chairs: Cunha, Di Silvestro

16:20 — Filippo Badii (40°, Perini / Veglia, The Wistar Institute)

Brain tumor-derived factors inhibit neutrophil antigen-presenting potency

16:35 — Federico Guerra (38°, Capranico / Marinello)

Role of RNA Polymerase II Backtracking in Genome Instability

16:55 — Zainul Abe Din (39°, Perini / Escolano, The Wistar Institute)

Tailored RNA Suits for Immunogens

17:15 — Lucia Pappagallo (38°, Danielli / Castagnola)

Neurophage: molecular engineering of phage nanoparticles for non-invasive neuronal photostimulation

17:35 – 17:55 — Concluding remarks and prize awards

Elena Chiti (38°, Roncarati / Scarlato) - data della presentazione da definire con la Giunta di Dottorato

Novel Insights into Nucleoid Structure and Master Regulators in Helicobacter pylori and Campylobacter jejuni

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