



18° PhD Workshop

5-6 September 2024, Aula Magna, Via della Beverara 123, Navile, Bologna, and Online Via Teams ([link](#))

Organizers: V Scarlato, D Roncarati

Thursday, September 5, 2024

Chair: Donini / Flandi

- 9:00 **Eva Donini** (37-PON, Cappelletti)
Biochar and microorganisms: a synergy for the sustainable treatment of contaminated waters and filters
- 9:20 **Elena Chiti** (38, Roncarati / Scarlato)
Investigating *Helicobacter pylori*'s transition to the coccoid form: Insights into Chromatin Dynamics and Regulation by HP1043
- 9:40 **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
- 10:00 **Francesco Flandi** (38, Oggioni)
Human spleen macrophages clear the pneumococcus by apoptosis not by phagolysosomes
- 10:20 **Stefania Di Silvestro** (38-PNRR, Cappelletti)
Bacterial functionalization of biochar as a sustainable strategy to deal with metal contamination

10:40 - 11:10 break

Chair: Ingrisano / Tosato

- 11:10 **Ettore Lopo** (39, Cappelletti / Sauro)
The biodiversity and biotechnological potential of cave microorganisms and their role in the protection of subterranean ecosystems
- 11:25 **Mattia Nicolò Li Volsi** (39, Vannini / Roncarati)
Functional and structural study of sRNAs controlled by NikR and Fur in *Helicobacter pylori*
- 11:40 **Ginevra Marie Eloise Peppi** (39, Zaffagnini / Trost)
Study of a new class of plant enzymes involved in redox homeostasis with still unknown functional plasticity using biological integrated approaches
- 11:55 **Edoardo Tosato** (37, Sparla / Trost)
CYB561-A and CYB561-B are likely involved in intracellular ascorbate redox homeostasis and ROS-mediated signalling
- 12:15 **Rachele Ingrisano** (37-PON, Sparla / Trost)
Phytoremediation as a sustainable treatment of dairy wastewater

12:35 **Tancredi Bin** (37-PON, Ghelli / Francia)
Photosynthetic vesicles for studying the interactions of green chemicals with native membranes

12:55 - 14:00 Lunch break

Chair: Pappagallo/ Kaltenbrunner

14:00 **Elisa Dell'Anna** (38-PNRR, Bernardoni / Perini)
Ribonucleoside diphosphate reductase small subunit (RnrS) downregulation in Drosophila mitotic and post-mitotic neurons and muscles demonstrates the essential role of the enzyme for locomotor activity and viability

14:20 **Alena Kaltenbrunner** (38-PNRR, Danielli / Costantini)
Nanobiotechnological engineering of the M13 phage for targeted photodynamic cancer therapy

14:40 **Lucia Pappagallo** (38, Danielli / Castagnola)
Neurophage: molecular engineering of phage nanoparticles for non-invasive neuronal photostimulation

15:00 **Claudio Pino** (38-PNRR, Musiani / Ghelli)
Precision medicine in cancer: drug repurposing strategies targeting DNA Polymerase ϵ for cancer therapy

15:20 **Alberto Rigamonti** (37, Perini / Milazzo)
Investigation of PRDM12 locus in colorectal adenocarcinoma cells

15:40 - 16:10 break

Chair: Aloisi / Guerra

16:10 **Emanuel Forciniti** (38, Sarma / Perini)
Examining neurodevelopmental roles of ADNP through its interactions with HP1 and CHD4 in the ChAHP complex

16:30 **Luca Grillini** (37, Gardini / Perini)
Recurring mutations of PP2A impair neurogenesis

16:50 **Sara Aloisi** (37, Perini / Milazzo)
RCor2 sustains super-enhancer-driven oncogenic transcription in ADR neuroblastoma

17:10 **Federico Guerra** (38, Capranico / Marinello)
Role of RNA polymerase II backtracking in genome instability in human cancer cells

17:30 **Monica Procacci** (38, Capranico / Miglietta)
G4-mediated genome instability and its role in promoting an innate immune response in cancer cells

17:50 **Emma Coschina** (38-PNRR, Angelini / Capranico / Ravegnini)
Characterization of 3D bioprinted human endometrial cancer models

Friday, September 6, 2024

Chair: Gherardi / Sandoni

- 9:00 **Iacopo Gherardi** (38, Porcelli / Ghelli)
TMEM65 controls mitochondrial activity through respiratory complex I assembly
- 9:20 **Laura Sandoni** (37, Maestrini / Bacchelli)
Genomic analysis of autism spectrum disorder and functional characterization of rare variants
- 9:40 **Martina Santulli** (38-PNRR, Perini / Monti)
Role of the PRR12 factor in Neurodevelopmental Visual Disorders (NDVDs)
- 10:00 **Chiara D'Silva** (39, Massenzio / Monti)
Investigating neuroinflammation influence on adult neurogenesis in in vitro models of Alzheimer's disease
- 10:20 **Cecilia Franciosi** (39, Monti / Alberini)
Angelman syndrome: a study on neuronal cultures derived from patients' iPS cells

10:40 - 11:10 break

Chair: Croatti / Libotte

- 11:10 **Vanessa Croatti** (37, Vitali / Parolin)
Exopolysaccharides of vaginal *Lactobacillus crispatus* as mediators of cellular interactions
- 11:30 **Tommaso Rossi** (37-PON, Danielli / Trevisi)
Natural and modified bacteriophages and protein-based nanoscaffold in the sustainable control of porcine post-weaning diarrhea
- 11:50 **Mattia Longanesi** (38-PNRR, Cavaliere)
Drosophila melanogaster as a model to identify new bioinsecticides molecules for pest insect control
- 12:10 **Manon Elise C. Libotte** (38, Zuccheri / Monti)
Self-assembled DNA nanostructure applied on immunomodulation of microglia in neuroinflammation
- 12:30 **Noemi Carosella** (39, Zambelli / Ciurli)
Phosphorylation and lipid binding of the intrinsically disordered region of NDRG1, a possible target for lung cancer therapy
- 12:45 **Tânia Raquel Cunha Alves** (39, Monti / Musilek)
Unraveling the connection between circadian rhythms and neural stem cells in Alzheimer's disease

13:00 - 14:00 Lunch break

Chair: Bergonzoni / Cimadom

- 14:00 **Matteo Bergonzoni** (39, Lieberman / Perini)
Investigating the role of PAX5 in Epstein-Barr virus latency and disease progression
- 14:15 **Martina Tomirotti** (39, Kulp / Perini)
Precision epitope engineering for influenza B Hemagglutinin: leveraging ai and structure-guided approaches
- 14:30 **Mario Marino** (39, Lieberman / Perini)
Utilizing Oxford nanopore technologies for comprehensive analysis of TERRA and the cellular transcriptome
- 14:45 **Giulia Pantella** (39, Murphy / Perini)
PADI4 citrullinates p53 and affects its transcriptional activity
- 15:00 **Lorenzo Serra** (39, Tian / Perini)
CHERP modulates cells resistance to splicing and elongation inhibitors through regulation of intronic polyadenylation
- 15:15 **Zainul Abe Din** (39, Escolano / Perini)
Tailored DNA / RNA Suits for Immunogens
- 15:30 **Leonardo Cimadom** (39, Perini / Chemello)
Investigation of synthetic polyamines effects on Neuroblastoma cells

15:45 - 16:15 break

Chair: Kirkel / Morelli

- 16:15 **Fabrizio Bertolazzi** (38, Schug / Perini)
Identifying acetate transporters through a CRISPR dropout screen
- 16:35 **Kelvin Maduabuchi Okpokpo** (38, Sarma / Perini)
Analysis of the connection of ATRX with ADNP and CTCF
- 16:55 **Federica Severi** (38, Claiborne / Perini)
Multivalent CAR T cell therapy shows superior potency in controlling HIV escape and replication in BLT humanized mice
- 17:15 **Sara Morelli** (37, Capranico / Russo)
Analysis of mutational signatures of Topoisomerase I poisons in colorectal cancer
- 17:35 **Ilan Kirkel** (37, Gardini / Perini)
Investigating the role of INTS3 in transcriptional regulation

17:50 Closing Remarks