PhD program in Cellular and Molecular Biology

Coordinator: V Scarlato

15° PhD Workshop



9-10 September 2021, Online Via Teams

Organizers: V Scarlato, D Roncarati

Thursday, September 9, 2021

Chair: Beniamino / Nicchi

- 09:20 **Giacomo Vezzani** (34, Frigimelica / Scarlato): Use of B-cell platform to characterize antigens of interest in Gram-negative bacteria
- 09:40 **Federico Antoniciello** (36, Scarlato / Roncarati): Inhibition of the essential transcriptional regulator HP1043 as a potential therapeutic approach against *Helicobacter pylori* infection
- 10:00 **Luigia Cappelli** (35, Cozzi / Maione / Scarlato): Exploring different self-assembling nanoparticles in displaying structurally defined epitopes
- 10:20 **Annapaola Petrosino** (35, Danielli): A potent orthogonal phage vector platform for targeted photodynamic therapy of Gram-negative bacterial pathogens

10:40 - 11:10 break

Chair: Lorenzini / Tartagni

- 11:10 **Jacopo Rossi** (34, Trost / Zaffagnini): S-nitrosoglutathione homeostasis in plants: the central role of GSNOR and a new enzyme class on the horizon
- 11:30 **Francesca De Chirico** (35, Monti): Understanding the role of microglial extracellular vesicles in neuroinflammation spreading: an in vitro study
- 11:50 **Giorgia Babini** (36, Monti / Massenzio): Metabolic alterations of fatty acids synthesis in OPCs and NSCs models of AGC1 deficiency
- 12:10 **Maria Meloni** (36, Zaffagnini / Crozet / Trost): Uncovering the functional properties of ribulose-5-phosphate epimerase (RPE) from the microalga *Chlamydomonas reinhardtii*
- 12:20 Luigi D'Angelo (36, Porcelli / Gasparre): Mitochondrial metabolism in ovarian cancer

13:00 - 14:30 Lunch break

Chair: Rossi / Viggiano

- 14:30 **Renée Concetta Duardo** (34, Capranico): Replication stress and under-replication as main mechanisms of Topoisomerase I poison-induced micronuclei
- 14:50 **Andrea Arleo** (34, Capranico / Marinello): Topoisomerase 1 poisons as modulators of innate immune gene activation in human cancer cells

- 15:10 Martina Gatto (36, Gardini / Perini): PP2A Methylation status during PP2A-Integrator interaction
- 15:30 **Simona Lombardi** (36, Zhang / Perini): Targeting cancer stemness in High Grade Serous Ovarian Cancer

15:50 - 16:20 break

Chair: Arleo / Duardo

- 16:20 **Davide Maestri** (36, Tempera / Perini): The role of YY1 in the 3D organization of the EBV genome in EBV-positive tumors
- 16:40 **Eugenia Lorenzini** (34, Ciarrocchi / Ambrosetti): TRIM28 keeps the time of mitosis sustaining proliferation and progression of Malignant Pleural Mesothelioma (MPM)
- 17:00 **Piergiuseppe De Rosa** (35, Perini): Characterization of Eight-Twenty-One (ETO) protein complex in neuroblastoma
- 17:20 **Marta Viggiano** (34, Maestrini): Contribution of compound heterozygous CACNA1H mutations in Autism Spectrum Disorder susceptibility
- 17: 40 **Nicola Balboni** (36, Giorgi / Monti): A transcriptome-wide analysis of the rare genetic disease AGC1 deficiency

Friday, September 10, 2021

Chair: Aleo / Manca

- 9:20 **Serena Jasmine Aleo** (34, Ghelli): Dissecting the role of NQO1 in the efficacy of idebenone as a treatment for Leber's hereditary optic neuropathy
- 9:40 **Ottavia Tartagni** (34, Zuccheri): Microstructured device fabrication for 3D cell cultures: drug assays and advanced microscopy techniques
- 10:00 **Suleman Khan Zadran** (36, Perini / Danielli): Engineering of an orthogonal phage-vector platform for photosonodynamic of Neuroblastoma
- 10:20 **Ylenia Beniamino** (34, Zambelli): Insights into the structure and dynamics of the NDRG1 intrinsically disordered region, combining NMR spectroscopy with in vivo and in vitro SDSL- EPR approaches

10:40 - 11:10 break

Chair: Petrosino / Vezzani

- 11:10 **Luca Ulfo** (36, Danielli / Calvaresi): Molecular engineering of the M13 phage into a nanobiotechnological platform for photodynamic, sonodynamic and photothermal cancer therapy
- 11:30 **Benedetta Manca** (34, Giuliani / Scarlato): Functional characterization of the gonococcal polyphosphate pseudo-capsule

- 11:50 **Federico D'Agostino** (35, Scarlato / Roncarati): Identification of *Helicobacter pylori cncR1* targets through MAPS technology
- 12:10 **Sonia Nicchi** (34, Brettoni / Maione / Scarlato): Investigating the mechanisms of *Moraxella catarrhalis* resistance to oxidative stress
- 12:30 **Paolo Cinelli** (35, Cozzi / Maione / Scarlato): Computational design, generation and periplasmic expression of new protein carriers for bioconjugation technology

12:50 Closing Remarks