



Day 1

Tuesday, 5 October 2021

09:30– 09:40 Andrea Riccio Opening of the PhDays 2021

09:40 – 10:45 Session

Gene Regulation and Computational Biology

Chairs: Andrea Riccio, Annamaria Carissimo, Claudia Angelini, Flavia Cerrato, Sandro Banfi, Nicoletta Potenza

Valeria Policastro 09:40 – 09:55

Multilayer Network Omic Integration

Tutor: Dr. Annamaria Carissimo, Dr. Claudia Angelini

Francesco Cecere 09:55 – 10:10

Investigating the causes of DNA methylation disturbances in the Beckwith-Wiedemann syndrome

Tutors: Prof. Andrea Riccio, Prof. Flavia Cerrato

Carlo Giaccari 10:10 – 10:30

The role of Padi6 in genomic imprinting. A new mutant mouse model

Tutor: Prof. Andrea Riccio

Karla Alejandra Ruiz Ceja 10:30 – 10:45

Meta-analysis of human retinal transcriptome data: a powerful tool to gain insight into the organization of inherited retinal disease genes and to identify putative interactors

Tutor: Prof. Sandro Banfi

Valentina Verdoliva 12:30 – 12:40

Development of biocompatible hyaluronan-based materials as drug-carriers and implant systems for tissue engineering

Tutor: Dr. Stefania De Luca

12:45 – 13:45 Lunch Break

Carmine Buonocore 13:50 – 14:05

Biotechnological application of *Pseudomonas gessardii* M15 rhamnolipids

Tutor: Dr. Donatella De Pascale

Giovanna Valentino 14:05 – 14:20

Specialized metabolites as potential lead compounds for anticancer drug discovery

Tutor: Prof. Antonio Fiorentino

Diana Santos 14:20 – 14:35

Dissecting the interaction of DDX11 with Timeless, a fork-protection complex subunit

Tutor: Dr. Francesca M. Pisani

Maria della Valle 14:35 – 14:50

Impact of nano-plastics on the structure, dynamics and function of (bio)macromolecules and biological systems

Tutor: Prof. Roberto Fattorusso

Mohammad Mahtab 14:50 – 15:00

Elucidating the role of DDX11, the Warsaw breakage syndrome DNA helicase, at the DNA replication fork

Tutor: Prof. Francesca M. Pisani

Alessandra Del Bene 15:00 – 15:10

Ultrasonic-Assisted Synthesis of Peptide Nucleic Acids

Tutor: Prof. Anna Messere

Marica Sassano 15:10 – 15:30

Nanoplastics impact on 3 different human gut commensals

Tutor: Prof. Gaetano Malgieri

Francesca Guzzo 15:30 – 15:40

NMR spectroscopic identification of secondary metabolites extracted from natural sources and evaluation of their potential antibacterial effect on *Staphylococcus aureus*

Tutor: Prof. Brigida D'Abrosca

Joyce Rodriguez 15:40 – 15:50

Role of Allelopathy in the Success of Selected Invasive Plant Species in the Mediterranean Basin and Possible Applications

Tutor: Dr. Monica Scognamiglio

Clementina Accocia 15:50 – 16:00

Development and optimization of natural-abundance NMR techniques for studying structure and dynamics of proteins in solution and peptide-ligand interactions on the surface of living cells

Tutor: Prof. Luigi Russo

Manil Kanade 16:00 – 16:10

Structural and biochemical analysis of FeS DNA helicases

Tutor: Dr. Silvia Onesti

Federica La Rocca 16:10 – 16:20

Effects of Glutamate on *C. elegans* Spinal Muscular Atrophy models

Tutor: Dr. Elia Di Schiavi

Haritha Asha 16:20 – 16:40

Exciton and charge separation: computational models

Tutor: Dr. Roberto Improta

Eliza Kramarska 16:40 - 16:50

Structural and functional characterisation of novel vaccine antigens

Tutor: Dr. Rita Berisio

Mario di Gennaro 12:15 – 12:30

Hyaluronic acid and its derivatives based multifunctional nanostructured devices in cancer therapy and regenerative medicine

Tutor: Dr. Assunta Borzacchiello



Day 2

Wednesday, 6 October 2021

9:30 – 14:35 Session

Molecular Cell Biology

Chairs: Alessandro Usiello, Antonia Lanni, Pieter De Lange, Aurora Daniele, Francesca M. Pisani, Giovanna Grimaldi, Nicoletta Potenza, Aniello Russo, Sandro De Falco, Alberto Luini, Massimo Carella, Carmen Valente, Fabio Arturo Iannotti, Elia Di Schiavi

Seyedehnegar Parizadeh 09:30 – 09:40

Links between the autoregulation of apical cargo export from the TGN and the control of TNBC cell growth

Tutor: Dr. Alberto Luini

Miriam Lucariello 09:40 – 09:55

Pharmacological targeting of the CtBP1/BARS protein between cancer and in viral infection

Tutor: Dr. Carmen Valente

Armando Di Palo 09:55 – 10:15

The long non-coding RNA SPACA6-AS1, miR-125a and its mRNA targets establish a novel ceRNA regulatory network in hepatocarcinoma cells

Tutor: Prof. Nicoletta Potenza

Arianna Cuomo 10:15 - 10:30

Direct effect of ketone bodies and thyroid hormone on BDNF maturation in muscle cells

Tutor: Prof. Pieter De Lange

Chiara Siniscalchi 10:30 – 10:45

miRNA role in the genotype-phenotype relationship of X chromosome aneuploidy syndromes

Tutors: Prof. Aniello Russo; Prof. Nicoletta Potenza

Paola Pignata 10:45 - 11:05

Prolyl 3-hydroxylase 2 is a molecular player of angiogenesis

Tutor: Prof. Sandro De Falco

Roberta Simiele 11:05 - 11:20

Effect of ketone bodies and BDNF on thyroid hormone action in cerebral cortex of rats subjected to exercise and fasting

Tutor: Prof. Pieter De Lange

Giuseppe Petito 11:20 - 11:40

Short-Term Fructose Feeding affects insulin signaling and lipid metabolism by modulating microRNAs expression differently in young and adult rats

Tutor: Dr. Antonia Lanni

Martina Garofalo 11:40 - 11:55

Role of D-aspartate oxidase on brain development and in neurodevelopmental disorders

Tutor: Prof. Alessandro Usiello

Marta Mallardo 11:55 - 12:10

Adiponectin protects against the neuronal damage induced by cerebrospinal fluid from multiple sclerosis via reducing oxidative stress and modulating INF γ expression

Tutor: Prof. Aurora Daniele

Alessia Casamassa 12:10 - 12:30

Patient specific cell lines as a model for Parkinson's disease associated to the GBA variant E326K

Tutors: Dr. Massimo Carella; Dr. Jessica Rosati

Ana Sofia Cabaço Boavida 12:30 - 12:45

Exploring the role of the FANCJ DNA helicase in counteracting replication stress

Tutor: Dr. Francesca Pisani

12:45 – 13:45 Lunch Break**Anupama Pavithran 13:45 - 14:00**

PARP12 as a Novel Target in Cancer Resistance to Chemotherapy

Tutor: Dr. Giovanna Grimaldi

Giada Onorato 14:00 - 14:15

Identification of environmental and genetic cues that modulate neuron degeneration in *C. elegans*

Tutor: Dr. Elia Di Schiavi

Hilal Kalkan 14:15 - 14:35

Unravelling new pathways and innovative perspectives for treating Duchenne Muscular Dystrophy: focus on the endocannabinoid system and its interplay with the gut microbiota

Tutor: Dr. Fabio Arturo Iannotti

14:35 – 17:30 Session

Human Genetics

Chairs: Sandro Banfi, Andrea Riccio, Flavia Cerrato, Floriana Della Ragione, Marina Ciullo, Vincenza Colonna, Vincenzo Nigro, Maria R. Matarazzo, Brunella Franco, Fernando Gianfrancesco, Teresa Esposito

Domenico Marano 14:35 – 14:55

Study of the molecular interplay between MeCP2 and AUTS2 in the glycosphingolipid metabolism and its involvement in Rett syndrome pathogenesis

Tutor: Dr. Floriana Della Ragione

Martina Di Guida 14:55 – 15:15

AAV-mediated microRNAs modulation as gene-independent strategy in inherited retinal dystrophies

Tutors: Prof. Sandro Banfi, Dr. Sabrina Carrella

Barbara Morone 15:15 – 15:35

Hematopoietic differentiation of induced pluripotent stem cells (iPSCs) derived from patient with the Immunodeficiency, Centromeric instability and Facial anomalies (ICF) syndrome into HPCs expressing hematopoietic markers (CD34, CD43, CD45)

Tutor: Dr. Maria R. Matarazzo

Maria Elena Onore 15:35 – 15:55

Unsolved rare cases: towards new diagnostic strategies

Tutor: Prof. Vincenzo Nigro

Georgios Petrogiannakis 15:55 - 16:10

Identification of microRNAs involved in retinal cells degeneration and evaluation of their potential impact in the treatment of inherited retinal disorders

Tutors: Prof. Sandro Banfi, Dr. Sabrina Carrella

Sharon Russo 16:10 - 16:20

Zfp687^{P937R}-knock in mouse model exhibits features of Paget's disease of bone and an altered bone marrow composition

Tutor: Dr. Fernando Gianfrancesco

Abu Saadat 16:20 - 16:30

Genome-wide studies for the molecular characterization of isolated Wilms tumor

Tutor: Prof. Andrea Riccio

Romina D'Alterio 16:30 - 16:45

The role of miR-181 in Parkinson Disease

Tutors: Prof. Brunella Franco, Dr. Alessia Indrieri

Pasqualina Cennamo 16:45 - 17:00

Genetics of oxidative stress in a population-based study

Tutor: Dr. Marina Ciullo

Giorgio Fortunato 17:00 - 17:10

Development of innovative diagnostic protocols for the prediction, progression and monitoring of Parkinson's disease

Tutor: Dr. Teresa Esposito

Silvia Buonaiuto 17:10 – 17:30

A pipeline for prioritization of putatively damaging genetic variants in cases of oocytes/embryo developmental arrest.

Tutor: Dr. Vincenza Colonna



Day 3

Thursday, 7 October 2021

10:00 – 13:30 Session

Cancer biology, Immunology, Microbiology, Drug design

Chairs: Piergiuseppe De Berardinis, Giovanna Del Pozzo, Paola Italiani, Lidia Muscariello, Ivana D'Angelo, L. Colucci D'Amato, Sandro Cosconati, Donatella De Pascale, Antonella Zannetti, Anna Chiara De Luca, Salvatore Di Maro, Valerio Costa, Bruno D'Agostino

Alessandro Verde 10:00 - 10:20

SERS-sensing, imaging and nanotoxicology of bacterial endotoxin on gold nanoparticles

Tutors: Dr. Anna Chiara De Luca; Dr. Paola Italiani

Antonia D'Aniello 10:20 - 10:30

Design and Synthesis of FMRP mimetic cyclopeptides as G-quadruplex stabilizers

Tutor: Prof. Salvatore Di Maro

Caterina Perfetto 10:30 - 10:40

Metabolic rewiring in thyroid carcinomas induced by BRAF gene mutations

Tutor: Dr. Valerio Costa

Gemma Conte 10:40 - 11:00

Hybrid lipid/polymer nanoparticles to assist nucleic acid therapeutic lung delivery in cystic fibrosis

Tutor: Prof. Ivana D'Angelo

Janardhan Ausuri 11:00 - 11:20

Isolation, screening and genomic characterization of marine bacterial isolates involving in pollutant remediation and biomedical applications

Tutor: Dr. Donatella De Pascale

Roberta Manco 11:20 – 11:35

Induction of anti-tumor response by filamentous bacteriophage targeting

Tutor: Dr. Piergiuseppe De Berardinis

Renata Esposito 11:35 – 11:45

The PD-L1 immune profile in lung cancer and COPD

Tutor: Prof. Bruno D'Agostino

Nicoletta Campolattano 11:45 – 12:00

Characterization of the MSMEG_3762/63 efflux pump in *Mycobacterium smegmatis*

Tutor: Prof. Lidia Muscariello

Rahul Ravichandran 12:00 – 12:15

Human Carbonic Anhydrase Inhibitors and Activators: A Computational Medicinal Chemistry perspective

Tutor: Prof. Sandro Cosconati

Mario Campanile 12:15 - 12:35

Ruta graveolens water extract ameliorates ischemic damage and improves neurological deficits in a rat model of transient focal brain ischemia

Tutor: Prof. Giuseppe Pignataro, Prof. Luca Colucci D'Amato

Rinaldo Grazioso 12:35 – 12:55

Effects of the change in buffer conditions and of the substitution of the structural ion on the folding mechanism of Ros87

Tutor: Prof. Carla Isernia

Mariavittoria Laezza 12:55 - 13:10

Evaluation of risk of Celiac Disease related to the expression of HLA DQ2.5 genes

Tutor: Dr. Giovanna Del Pozzo

Annachiara Sarnella 13:10 – 13:25

Bone Marrow Mesenchymal Stem Cells contribute to cisplatin resistance through CA IX overexpression in Triple Negative Breast Cancer

Tutor: Dr. Antonella Zannetti