PhDays 2020
PhD Programme in Molecular Life Science

Day1 Monday, 21 September 2020

09:30– 10:00 Andrea Riccio – Opening of the PhDays 2020

10:00 – 18:20 **Session 1**

Cancer biology, Immunology, Microbiology, Drug design

Chairs: Michele Grieco, Piergiuseppe De Berardinis, Giovanna Del Pozzo, Emilia Vitale, Alfonso Baldi, Margherita Sacco, Fernando Gianfrancesco, Paola Italiani, Lidia Muscariello, Ivana d'Angelo, L. Colucci D'Amato, Sandro Cosconati

Chetan Dhakan 9:40-10:00
Preclinical assessment of Proton Pump Inhibitors by multi slice MRI-CEST pH Imaging: A study in metastatic breast cancer
Tutor: Dott. Silvio Aime - Prof. Dario Longo

Alessia Ametrano 10:00-10:20
Antarctized" antibody: an innovative engineered antibody by the CRISPR/Cas9 system
Tutor: Dott.ssa Maria Rosaria Coscia

Ana Margarida Ferreira Campos 10:25 - 10:45
Modulating innate memory to treat inflammatory diseases
Tutor: Dr. Paola Italiani

Roberta Manco 10:45 – 10:55
Induction of anti-tumor response by filamentous bacteriophage targeting dendritic cells
Tutor: Dott. Piergiuseppe De Berardinis

Giacomo Della Camera 10:55 -11:15
New approaches to immunotherapy of inflammation through the use of engineered nanoparticles (ENP)
Tutor: Dr. Diana Boraschi

Maria Rita Milone 11:15 – 11:35
Repurposing of valproic acid and simvastatin as anticancer agents in pancreatic cancer: a new therapeutic approach in combination with chemotherapy
Tutor: Dott. Alfredo Budillon

Nicoletta Campolattano 11:35 – 11:45
Characterization of the MSMEG_3762/63 efflux pump in Mycobacterium smegmatis
Tutor: Prof. Lidia Muscariello

Rita Lombardi 11:45 -12:05
HSP90 identified by a proteomic approach as druggable target to reverse platinum resistance in ovarian cancer
Tutor: Dott. Alfredo Budillon

Alessandro Verde 12:05 – 12:20
Gold Nanoparticles contaminated by Bacterial Endotoxin: biophysical characterization, imaging and nanotoxicology
Tutor: Dott.ssa Anna Chiara De Luca; Dott.ssa Paola Italiani

Rahul Ravichandran 12:20 – 12:30
Application of advanced docking strategies in the design of selective Carbonic Anhydrase IX inhibitors
Tutor: Prof. Sandro Cosconati

Pietro Irrera 12:30 – 12:50
.Using in vivo MRI-CEST tumor pH imaging to detect early resistance to proton pump inhibitors in human prostate cancer murine models
Tutor: Dr. Dario Longo

Mariavittoria Laezza 12:50 – 13:00
Regulation of HLA DQ2.5 genes in subjects with high/moderate risk to develop Celiac Disease
Tutor: Dott.ssa Giovanna Del Pozzo

13:00 – 14:00 Lunch Break

Mariateresa Allocca 14:00 – 14:15
Search for orphan drugs using bioinformatics tool and in vitro validation
Tutor: Dr. Giuseppina Andreotti

Magdalena Kostrzewa 14:15 – 14:35
Effect of non-psychotropic cannabinoids on androgen deprivation therapy in high-fat diet- induced prostate cancer: implications for gut microbiome
Tutor: Dr. Fernando Gianfrancesco/ Dr. Alessia Ligresti

Mario Campanile 14:35 – 14:50
Effect of Ruta graveolens water extract on ischemic damage and neurological deficits in a rat model of transient focal brain ischemiaTutor: Prof. Generoso Luca Colucci D'Amato; Prof. Giuseppe Pignataro

Ali Mokhtar Mahmoud 14:50 – 15:10
Effect of non-psychotropic cannabinoids on tumour growth in hormone refractory prostate cancer
Tutor: Dr. Alessia Ligresti

Gemma Conte 15:10 – 15:25
Hybrid lipid/polymer nanoparticles for pulmonary delivery of siRNA in cystic fibrosis lung inflammation
Tutor: Pof. Ivana D'Angelo

Janardhan Ausuri 15:25 – 15:40
Isolation and characterization of PAH's degradaing bacteria by Dietzia and Rhodococcus sp.
Tutor: Dr. Donatella De Pascale

Pranoy Sahu 15:40 – 16:00
Identification and characterization of a Golgi glycosyltransferase as a new potential oncogene
Tutor: Prof. Alberto Luini; Dr. Riccardo Rizzo

Viera Laura Santana 16:00 – 16:20
Development of aptamer-based therapeutics to selectively target the stem-like cancer cells
Tutor: Paola Ungaro

Marisa Saponaro 16:20 – 16:40
Identification of lead compounds from Marine Natural Products as novel therapeutic strategies to treat neurodegenerative disorders
Tutor: Dr. Carmela Gallo

Carmine Buonocore 16:40 – 16:50
Novel antimicrobial biosurfactants from Antarctica
Tutor: Dr. Donatella de Pascale

Giovanni Andrea Vitale 16:50 – 17:10
Marine environment as a source of new multiactivity pigments and bioactive molecules
Tutor: Dr. Donatella de Pascale

Henu Kumar Verma 17:10 – 17:30
Identification and characterization of Gm4340 (Thoc4) gene expression in mRNA Export in Embryonic Stem Cells
Tutor: Prof. Geppino Falco

Veronica Sarnella 17:30 – 17:40
Targeting CA IX prevents hypoxia-induced cell plasticity in Triple Negative Breast Cancer
Tutor: Dr. Zannetti Antonella

Federica Farina 17:40 – 18:00
Study of HLA-DQA1 and DQB1 risk alleles conferring genetic susceptibility to Celiac Disease
Tutor: Dott.ssa Giovanna Del Pozzo

Alejandro Moreiras 18:00 – 18:20
Drug-discovery from marine natural compunds
Tutor: Dr. Angelo Fontana

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Day2 Tuesday, 22 September 2020

10:00 – 12:05 Session 2

Gene Regulation and Computational Biology

Chairs: Andrea Riccio, Flavia Cerrato, Nicoletta Potenza, Aniello Russo

Varsha Poondi Krishnan 11:25 – 11:45
Integrated analysis of epigenomic and trancriptomic signature in patient derived iPSCs carrying DNMT3B mutations and their isogenic lines with restored DNMT3B following CRISPR/Cas9
Tutor: Dr. Maria R Matarazzo

Valeria Policastro 10:20 – 10:30
New statistical methodologies for Omic Network Integration
Tutor: Dott.ssa Annamaria Carissimo

Ichcha Manipur 10:30 – 10:50
Network similarity measures for tumor metabolic networks
Tutor: Dr. Mario Rosario Guarracino

Francesco Cecere 10:50 – 11:00
Bioinformatic analysis of RNA-seq data to identify molecular pathways involved in two imprinting disorders: Beckwith-Wiedemann and Silver-Russell syndromes
Tutor: Prof. Andrea Riccio – Prof. Flavia Cerrato

Carlo Giaccari 11:00 – 11:15
The role of Padi6 in genomic imprinting. A new mutant mouse model
Tutor: Prof. Andrea Riccio

Karla Ruiz 11:15 – 11:25
Identification of the gene networks that modulate ABCA4 expression
Tutor: Prof. Sandro Banfi

Ankit Verma 10:00 – 10:20
Investigation on regulatory components and differentially methylated regions associated with genomic imprinting and imprinting disordersTutor: Prof. Andrea Riccio

Yi-Shin Lee 11:45 – 12:05
Reactivation of the dormant wild-type allele of MECP2 as a therapy for Rett syndrome: screening of epigenetic compounds
Tutor: Dr. Marcella Vacca; Dr. Laura Casalino

12:05 – 17:45 Session 3

Structure and Functions of Biomolecules

Chairs: Carla Isernia, Roberto Fattorusso, Menotti Ruvo, Angela Chambery, Gaetano Malgieri, Luigi Vitagliano, Antonio Fiorentino, Paolo Vincenzo Pedone, Antimo di Maro, Rita Berisio, Brigida D'Abrosca

Nicola Landi 12:05 – 12:25
Determination of primary structure, gene organization and antifungal activity of Ageritin, the first ribotoxin-like protein from edible mushrooms
Tutor: Prof. Antimo Di Maro

Mariangela Valletta 12:25 – 12:40
Secretome analysis reveals a role of pentraxin-3 in modulating the angiogenic activity of high mobility group box 1 in breast cancer
Tutor: Prof. Angela Chambery

Andrea Corvino 12:40 – 13:00
Structural characterization of multi-domain proteins involved in neuronal diseases
Tutor: Prof. Roberto Fattorusso

13:00 – 14:00 Lunch Break

Rinaldo Grazioso 14:00 – 14:15
Zinc finger and the metal: xenobiotic ion as structural and folding cofactor in the prokaryotic zinc finger Ros87
Tutor: Prof. Carla Isernia

Maria Della Valle 14:15 – 14:25
Characterization of micro- and nano-plastic interactions with biological systems through NMR methodologies
Tutor: Prof. Roberto Fattorusso

Marica Sassano 14:25 – 14:40
PTFE nanoplastics impact on Bifidobacterium growth and biofilm formation
Tutor: Prof. Gaetano Malgieri

Manoj Madheswaran 14:40 – 14:50
Structural Analysis of Metal ion binding Human Prion Proteins using NMR Methodologies
Tutor: Prof. Roberto Fattorusso

Giovanna Valentino 14:50 – 15:00
Specialized metabolites as potential lead compounds for anticancer drug discovery
Tutor: Prof. Antonio Fiorentino

Odeta Celaj 15:00 – 15:20
Secondary metabolites from Mediterranean plants for nutraceutical and pharmaceutical applications
Tutor: Prof. Antonio Fiorentino

Haritha Asha 15:20 – 15:35
Exciton and Charge Separation : Computational Models
Tutor: Dr. Roberto Improta

Francesca Della Sala 15:35 – 15:55
New strategy based on polymeric biomaterials combined to stem cells to promote pulmonary tissue regeneration
Tutor: Prof. Assunta Borzacchiello

Alessandra Monti 15:55 – 16:15
Molecular characterization of the interaction of PREP1 and MEIS1 with PBX1
Tutor: Dr. Nunzianna Doti

Mario Di Gennaro 16:15 – 16:25
Preparation of devices from natural substances for controlled release
Tutor: Prof. Assunta Borzacchiello

Diana Santos 16:25 - 35
Biochemical and biophysical studies of the DNA helicases DDX11 and FANCJ involved in G-quadruplex nucleic acid metabolism
Tutor: Dr. Francesca M. Pisani

Jwala Priyadarsini Sivaccumar 16:35 – 16:55
Targeting Nodal and Cripto-1 onco-fetal proteins using recombinant antibody fragments decorated Nanoparticles
Tutor: Prof. Menotti Ruvo and Prof. Luigi Vitagliano

Veronica Russo 16:55 – 17:05
Different Impacts of MucR Binding to the babR and virB Promoters on Gene Expression in Brucella abortus 2308
Tutor: Prof. Paolo Vincenzo Pedone

Lucia Verrillo 17:05 – 17:25
Towards the identification of new therapeutical compounds for a malignant epileptic caused by mutations in Aristaless-related homeobox gene
Tutor: Dr. Maria Giuseppina Miano

Miguel Cardoso de Azevedo Moreira 17:25 – 17:45
Structure and function of key macromolecules involved in severe humane pathogeneses
Tutors: Dr. Rita Berisio – Prof. Menotti Ruvo

Università degli Studi della Campania Luigi Vanvitelli

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Day3 Wednesday, 23 September 2020

10:00 – 14:45 Session 4

Molecular Cell Biology

Chairs: Gabriella Chieffi, Alessandro Usiello, Antonia Lanni, Antonino Colanzi, Pieter De lange, Aurora Daniele, Maria M. Di Fiore, Nicoletta Potenza, Pieter de Lange; Maria M. Di Fiore, Lucia Rocco, Antonino Colanzi

Ana Sofia Cabaco Boavida 10:00 – 10.10
Exploring the roles of DDX11 and FANCJ DNA helicases in genome stability maintenance pathways
Tutor: Dr. Francesca M. Pisani

Maria Charalambous 10:10– 10:20
Mitochondrial dynamics as a new therapeutic target for neurodegenerative diseases
Tutor:Prof..Dr. Lucio Nitsch

Anupama Pavithran 10:20- 10:30
PARP12 as a Novel Target in Cancer Resistance to Chemotherapy
Tutor: Dr. Giovanna Grimaldi

Federica di Giacomo Russo 10:30– 10:50
D-aspartic acid upregulates DAAM1 and PREP expressions during spermatogenesis
Tutor:Prof.ssa Gabriella Chieffi

Armando Di Palo 10:50-11:05
The short and the long RNAs at miR-99b/miR-let7e/miR-125a-Spaca6 locus: an open scenario in hepatocellular carcinoma
Tutor: Prof. Nicoletta Potenza

Arianna Cuomo 11:05- 11:15
Physical exercise and fasting as modulators of potential biomarkers characterizing diabetes
Tutor: Prof. Pieter De Lange

Giuseppe Petito 11:15– 11:30
Effect of 3,5-diiodo-L-thyronine (T2) administration on visceral white adipose tissue inflammatory response in high-fat diet-induced overweight rats
Tutor: Prof. Antonia Lanni

Chiara Siniscalchi 11:30- 11:40
miRNA role in the genotype-phenotype relationship of X chromosome aneuploidy syndromes
Tutor: Prof. Aniello Russo

Paola Pignata 11:40-11:55
Leprel-1 is involved in angiogenesis process
Tutor: Dr. Sandro De Falco

Namrata Iyengar 11:55-12:15
Unravelling autoregulatory signalling circuits controlling export of different cargo classes from the ER
Tutor: Dr. Alberto Luini

Marta Mallardo 12:15- 12:25
Characterization of adiponectin in cerebrovascular fluid from patients affected by Multiple Sclerosis
Tutor: Prof. Aurora Daniele

Alessia Casamassa 12:25- 12:40
Human induced pluripotent stem cells as model to study neurodegenerative disorders: a focus on spinocerebellar ataxia type 17
Tutor: Dr. Massimo Carella; Dtt.ssa Jessica Rosati

Martina Garofalo 12:40- 12:50
Molecular, biochemical and behavioural characterization of D aspartate oxidase knock-in mouse model
Tutor: Prof. Alessandro Usiello

12:55 – 14:00 Lunch Break

Miriam Lucariello 14:00-14:10
Pharmacological targeting of the protein CtBP1/BARS in cancer and in viral infection
Tutor: Carmen Valente

Roberta Simiele 14:10-14:20
Fasting and exercise affect T4 and BDNF signaling pathways
Tutor: Prof. Pieter de Lange

Hilal Kalkan 14:20-14:35
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

Giada Onorato 14:35-14:45
Identification of environmental and genetic cues that modulate neuron degeneration in C.elegans
Tutor: Dr. Elia Di Schiavi

14:45 – 18:00 Session 5

Human Genetics

Chairs: Giulio Piluso, Sandro Banfi, Paolo V. Pedone, Andrea Riccio, Flavia Cerrato, Vincenzo Nigro, Vincenza Colonna, Fernando Gianfrancesco

Ahmed El-Sharkawy 14:45 – 15:05
The interplay of NEMO, RIPK1 and RIPK3 signaling in the regulation of cell death
Tutor: Dr. Matilde Valeria Ursini

Rosita Del Prete 15:05 – 15:25
Generation and characterization of murine models in imprinting disorders
Tutor: Prof. Alfonso Baldi

Jamal Naderi 15:25 – 15:45
H3K4me3 profiles in subcutaneous pre-adipocytes of individuals with a family history of type 2 diabetes
Tutor: Dr. Claudia Miele

Laura Pignata 15:45 – 16:05
DNA methylation defects at multiple imprinted loci in Beckwith-Wiedemann Syndrome and/or Wilms Tumor
Tutor: Prof. Andrea Riccio

Domenico Marano 16:05- 16:20
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

Petrogiannakis Georgios 16:20- 16:30
Identification of microRNAs involved in retinal cells degeneration and evaluation of their potential impact in the treatment of inherited retinal disorders.
Tutor: Prof. Sandro Banfi

Pasqualina Cennamo 16:30- 16:40
Genetic determinants of endogenous antioxidants variability in a population-based studyù
Tutor: Dr. Marina Ciullo

Silvia Buonaiuto 16:40– 16:55
A pipeline for prioritization of putatively damaging genetic variants
Tutor: Dr. Vincenza Colonna

Paola D'Ambrosio 16:55– 17:10
Deep intronic mutations in the DMD gene: implications in diagnosis, phenotype and potential therapeutic approaches.
Tutor: Prof. Vincenzo Nigro

Barbara Morone 17:10– 17:25
Hematopoietic differentiation of iPSCs derived from patient with the Immunodeficiency, Centromeric instability and Facial anomalies (ICF) syndrome into HPCs expressing CD45
tutor: Dr. Maria R. Matarazzo

Maria Elena Onore 17:25 – 17:40
Linked whole genome sequencing as further step to study unsolved NMD cases
Tutor: Prof. Vincenzo Nigro

Romina D'alterio 17:40- 18:00
The role of miR-181 in Parkinson Disease
Tutor: Prof. Ssa Brunella Franco