

Day1 Monday, 16 September 2019

09:30–10:00 Andrea Riccio – Opening of the PhDays 2019

10:00 – 17:50 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,

**Alessia Ametrano 10:00-10:15**

“Antarctized” antibody: an innovative engineered antibody by the CRISPR/Cas9 system  
Tutor: Maria Rosaria Coscia

**Ana Margarida Ferreira Campos 10:15 - 10:30**

Modulating innate memory to treat inflammatory diseases  
Tutor: Paola Italiani

**Barbara De Siena 10:30 - 10:50**

Characterization of an efflux pump in *Mycobacterium smegmatis*.  
Tutor: Lidia Muscariello

**Giacomo Della Camera 10:50 -11:05**

Study of inflammatory response and complement activation following the use of engineered nanoparticles (ENPs).  
Tutor: Dr. Diana Boraschi

**Maria Rita Milone 11:05 – 11:20**

Repurposing of valproic acid and simvastatin as anticancer agents in pancreatic cancer: a new therapeutic approach in combination with chemotherapy.  
Tutor: Dott. Alfredo Budillon

**Ludovica Liguori 11:20 – 11:40**

Small molecules: towards a personalized therapy for Fabry Disease  
Tutor: Giuseppina Andreotti

**Rita Lombardi 11:40 -11:55**

A proteomic approach identified HSP90 as a central hub in CDDP-resistant ovarian cancer cells: role of HSP90 inhibitors in overcoming drug resistance.  
Tutor: Dott. Alfredo Budillon

**Alessandro Verde 11:55 – 12:05**

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

**Priyanka Gokulnath 12:05 – 12:25**

New Players involved in High Grade Serous Ovarian Carcinoma originating from Fallopian tube  
Tutor: Dot..ssa Mariastella Zannini

**Billy Samuel Hill 12:25 – 12:45**

Therapeutic Potential of a Novel  $\alpha\beta 3$  Antagonist to Hamper the Aggressiveness of Mesenchymal Triple Negative Breast Cancer Sub-Type  
Tutor: Dott.ssa Antonella Zannetti

**Pietro Irrera 12:45 – 13:00**

Development of MRI-based pH imaging as biomarker of treatment response.  
Tutor: Dario Longo

13:00 – 14:00 Lunch Break

**Mariateresa Allocca 14:00 – 14:10**

Fibril formation assay to test new halogenated compounds as transthyretin misfolding inhibitors  
Tutor: Giuseppina Andreotti

**Magdalena Kostrzewa 14:10 – 14:25**

The Endocannabinoid System as a target for the treatment of bone disorders  
Tutor: Dr. Fernando Gianfrancesco/ Dr. Alessia Ligresti

**Mario Campanile 14:25 – 14:35**

Molecular underpinnings of neural differentiation involved in the pathogenesis of glioblastoma  
Tutor: Prof. Generoso Luca Colucci D'Amato

**Giorgio Amendola 14:35 – 14:55**

Application of Advanced In Silico Tools in the Design of Bioactive Small Molecules  
Tutor: Sandro Cosconati

**Ali Mokhtar Mahmoud 14:55 – 15:15**

Effect of non-psychotropic cannabinoids on tumour growth in hormone refractory prostate cancer  
Tutor: Alessia Ligresti

**Gemma Conte 15:15 – 15:25**

Biodegradable nanoparticles for prolonged therapeutic efficacy of antimicrobial peptides against *Pseudomonas aeruginosa* lung infections  
Tutor: Ivana D'Angelo

**Grant Garren January 15:25 – 15:45**

Exploitation of new strains for drug discovery from Antarctic deep-sea sediments  
Tutor: Dr. Donatella de Pascale

**Janardhan Ausuri 15:45 – 15:55**

Isolation and Characterization of Hydrocarbon degrading microorganisms  
Tutor: Dr. Donatella De Pascale

**Michele Minopoli 15:55 – 16:15**

Structure-function relationship of an Urokinase receptor-derived peptide which prevents migration/invasion and vascular infiltration of cancer cells by inhibiting the formyl peptide receptor type 1 activity.  
Tutor: Maria Vincenza Carriero

**Pranoy Sahu 16:15 – 16:30**

Identification and characterization of a Golgi glycosyltransferase as a new potential oncogene  
Tutor: Prof. Alberto Luini; Dr. Riccardo Rizzo

**Viera Laura Santana 16:30 – 16:45**

Targeting of an epigenetic regulator complex by a novel aptamer-based strategy  
Tutor: Paola Ungaro

**Marisa Saponaro 16:45 – 17:00**

Identification of lead compounds from Marine Natural Products as novel therapeutic strategies to treat neurodegenerative disorders  
Tutor: Dr. Carmela Gallo

**Giovanni Andrea Vitale 17:00 – 17:15**

Marine environment as a source of new multiactivity pigments and bioactive molecules  
Tutor: Dr. Donatella de Pascale

**Narender Kumar 17:15 – 17:35**

A cell-autonomous PD-1/PD-L1/2 circuit promotes proliferation and motility of thyroid cancer cells by potentiating the Ras/Mapk signalling cascade  
Tutor: Prof. Rosa Marina Melillo

**Henu Kumar Verma 17:35 – 17:50**

Functional characterization and regulation of genes involved in the early phases of embryonic development  
Tutor: Prof. Geppino Falco

**Alejandro Moreiras 17:50-18:05**

Drug-discovery from marine natural compounds  
Tutor: Dr. Angelo Fontana

Day2 Tuesday, 17 September 2019

10:00 – 12:10 Session 2

**Gene Regulation and Computational Biology**

**Chairs:** Vincenza Colonna, Aniello Russo, Nicoletta Potenza, Andrea Riccio, Luca Colucci

**Ankit Verma 10:00 – 10:15**

Differential methylation profile in congenital imprinting disorders with multi-locus imprinting disturbances  
Tutor: Andrea Riccio

**Basilina Acurzio 10:15 – 10:35**

Imprinting Control Regions binding proteins: key factors for maintaining genomic imprinting in mouse embryonic stem cells.  
Tutor: Andrea Riccio

**Ichcha Manipur 10:35 – 10:50**

Metabolic network classification and Integrated analysis of multi-omics single cell sequencing data  
Tutor: Mario Rosario Guarracino

**Monika Krzak 10:50 – 11:10**

Cell subpopulation detection through clustering single-cell RNAseq data  
Tutor: Claudia Angelini

**Carlo Giaccari 11:10 – 11:20**

The role of NLRP5 in genomic imprinting. A new mutant mouse model  
Tutor: Andrea Riccio

**Amarinder Singh Thind 11:20 – 11:40**

Pipelines and software tools for transcriptomics data integration and analysis uncover new biological insights  
Tutor: Mario Rosario Guarracino

**Varsha Poondi Krishnan 11:40 – 11:55**

Integrated analysis of epigenomic and transcriptomic signature in patient-derived iPSCs carrying DNMT3B mutations and their isogenic lines with restored DNMT3B following CRISPR/Cas9.  
Tutor: Maria R Matarazzo

**Yi-Shin Lee 11:55 – 12:10**

Reactivation of the dormant wild-type allele of MECP2 as a therapy for Rett syndrome: screening of epigenetic compounds.  
Tutor: Marcella Vacca; Laura Casalino

12:10 – 17:50 Session 3

**Structure and Functions of Biomolecules**

**Chairs:** Carla Isernia, Roberto Fattorusso, Rita Berisio, Menotti Ruvo, Angela Chambery, Gaetano Malgieri, Luigi Vitagliano, Sandro Cosconati, Antonio Fiorentino, Brigida D'Abrosca

**Nicola Landi 12:10 – 12:25**

Ostreatin, the second member of ribotoxin-like proteins from the edible mushroom *Pleurotus ostreatus*: purification and enzymatic characterization.  
Tutor: Antimo Di Maro

**Mariangela Valletta 12:25 – 12:35**

Uncovering the molecular basis of cancer by cutting-edges high resolution mass spectrometry technologies  
Tutor: Prof. Alessandro Usiello; Dr. Massimo Carella

**Michela Napolitano 12:35 – 12:55**

Mechanisms of CtBP1-S/BARS-mediated mitotic Golgi fragmentation  
Tutor: Carmen Valente; Anna Chiara De Luca

12:55 – 14:00 Lunch Break

**Marica Sassano 14:00 – 14:10**

NGF (1-14) peptide interaction with metal ions. NMR studies on structural changes.  
Tutor: Gaetano Malgieri

**Teresa Maria Carusone 14:10 – 14:30**

Posttranscriptional mechanisms that impact on the regulation of expression and activity of the human lactonase PON2  
Tutor: Giuseppe Manco

**Andrea Corvino 14:30 – 14:45**

Structure and dynamics of Human Prion and Phox2B proteins by Nuclear Magnetic Resonance (NMR)  
Tutor: Roberto Fattorusso

**Giuseppina Crescente 14:45 – 15:05**

LC-MSn-based (poly)phenol profiling of extracts from food by-products with nutraceutical and cosmeceutical value  
Tutor: Severina Pacifico

**Haritha Asha 15:05 – 15:15**

Exciton and Charge Separation : Computational Models  
Tutor: Dr. Roberto Imprata

**Daniela Caruso 15:15 – 15:35**

Structural characterization of the aggregates formed by the members of the GADD45 family  
Tutor: Menotti Ruvo and Luigi Vitagliano

**Francesca Della Sala 15:35 – 15:50**

Polymeric biomaterials and stem cells for pulmonary tissue regeneration.  
Tutor: Assunta Borzacchiello

**Alessandra Monti 15:50 – 16:05**

Identification of inhibitors of PIN1 isomerase activity.  
Tutor: Nunzianna Doti

**Odetta Celaj 16:05 – 16:20**

Secondary metabolites from Mediterranean plants for nutraceutical and pharmaceutical applications  
Tutor: Antonio Fiorentino

**Giovanni Mastroianni 16:20 – 16:40**

Untargeted Metabolomics evaluation of nutraceuticals using NMR as main analytical platform  
Tutor: Antonio Fiorentino

**Alessia Casamassa 16:40 – 16:50**

Investigating the metabolism of the D-amino acids, D-serine and D-aspartate, in the serum and CSF of patients with neurological disorders  
Tutor: Prof. Alessandro Usiello; Dr. Massimo Carella

**Jwala Priyadarsini Sivaccumar 16:50 – 17:05**

Targeting Nodal and Cripto-1 onco-fetal proteins using Bispecific antibody fragments  
Tutor: Menotti Ruvo and Luigi Vitagliano

**Rinaldo Grazioso 17:05 – 17:15**

The effects of the metal ion replacement on the folding mechanism in the prokaryotic zinc-finger domain Ros87.  
Tutor: Carla Isernia

**Joëlle Ayoub 17:15 – 17:35**

Insights into the tumor associated protein P150, the largest subunit of the Chromatin Assembly Factor 1  
Tutor: Giuseppina De Simone and Simona Maria Monti

**Lucia Verrillo 17:35 – 17:50**

Towards the identification of new therapeutical compounds for a malignant epileptic encephalopathy caused by mutations in *Aristaless-related homeobox* gene.  
Tutor: Maria Giuseppina Miano

**Day3** **Wednesday, 18 September 2019**

**10:00 – 14:20 Session 4**

**Molecular Cell Biology**

**Chairs:** Gabriella Chieffi, Alessandro Usiello, Antonia Lanni, Antonino Colanzi, Pieter De lange, Aurora Daniele, Maria M. Di Fiore

**Alba Clara Fernández-Rilo 10:00 – 10:20**

Untangling the phosphorylation of tau by understanding the role of novel interplayers: Endocannabinoid system, Orexin, Leptin and LPA.  
Tutor:Luigia Cristino

**Maria Charalambous 10:20– 10:35**

Mitochondrial dynamics as a new therapeutic target for neurodegenerative diseases  
Tutor:Prof..Dr. Lucio Nitsch

**Giuseppe Delli Paoli 10:35 – 10:55**

A combination of exercise with fasting leads to a boost of fatty acid consumption in rats and humans, with beneficial outcomes.  
Tutor:Pieter de Lange

**Federica di Giacomo Russo 10:55– 11:10**

D-Aspartate in the spermatogenesis  
Tutor:Prof.ssa Gabriella Chieffi

**Armando Di Palo 11:10-11:20**

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

**Federica Liccardo 11:20-11:40**

Novel fluorescent probes for precision labeling in super-resolution microscopy.  
Tutor:Alberto Luini

**Giuseppe Petito 11:40 – 11:50**

3,5 diiodo-L-thyronine (T2) improves the inflammatory response in visceral white adipose tissue (VAT) of rats fed a high fat diet  
Tutor: Antonia Lanni

**Concetta Iovine 11:50 – 12:10**

*In vivo* and *in vitro* evaluation of ellagic acid effects on human and animal reproduction  
Tutor: Lucia Rocco

**Paola Pignata 12:10-12:20**

Leprel-1 is involved in angiogenesis process.  
Tutor: Dr. Sandro De Falco

**Namrata Iyengar 12:20-12:35**

Delineating cargo classes and their differential requirement of Signalling cascade for exit from the Endoplasmic Reticulum (ER)  
Tutor: Dr. Alberto Luini

**Stefania Serpico 12:35 – 12:55**

The Lysophosphatidic Acid Acyltransferase (LPAATs) Enzymes and their role in membrane transport alterations in cancer.  
Tutor: Carmen Valente

**12:55 – 14:00 Lunch Break**

**Manpreet Patheja 14:00 – 14:20**

Characterization of the Cellular targets of the Glycerophosphoinositols  
Tutor: Alessia Varone and Daniela Corda

**14:20 – 17:05 Session 5**

**Human Genetics**

**Chairs:** Giulio Piluso, Sandro Banfi, Paolo V. Pedone, Andrea Riccio, Flavia Cerrato

**Ahmed El-Sharkawy 14:20 – 14:35**

The interplay of NEMO, RIPK1 and RIPK3 signaling in the regulation of cell death.  
Tutor: Matilde Valeria Ursini

**Rosita Del Prete 14:35 – 14:50**

Characterization of murine models in imprinting disorders  
Tutor: Alfonso Baldi

**Jamal Naderi 14:50 – 15:05**

Profiling histone modification (H3K4me3) in preadipocytes of individuals with a family history of type 2 diabetes  
Tutor: Claudia Miele

**Laura Pignata 15:05 – 15:20**

DNA methylation defects at multiple imprinted loci in Beckwith-Wiedemann Syndrome and/or Wilms Tumor.  
Tutor: Andrea Riccio

**Antonella Rendina 15:20 – 15:40**

Neuroimmune mutations leading to dementia: focusing on microglial receptor CD33  
Tutor: Emilia Vitale

**Salvatore Fioriniello 15:40 – 16:00**

Transcriptional and epigenetic deregulation of glycosphingolipid metabolism in Rett syndrome models  
Tutor: Floriana Della Ragione

**Domenico Marano 16:00 – 16:10**

Study of the molecular interplay between MeCP2 and AUTS2 in the glycosphingolipid metabolism and its involvement in Rett syndrome pathogenesis.  
Tutor: Floriana Della Ragione

**Silvia Buonaiuto 16:10 – 16:25**

Identification of genomic variants responsible for pregnancy loss  
Tutor: Vincenza Colonna

**Paola D'Ambrosio 16:25 – 16:35**

Therapeutic approach with Ataluren in Duchenne symptomatic carriers with nonsense mutations in dystrophin gene.  
Tutor: Luisa Politano

**Hilal Kalkan 16:35 – 16:45**

SQSTM1/p62 Bridges Paget Disease of Bone to Neurological Disorders  
Tutor: Gianfrancesco Fernando

**Morone Barbara 16:45 – 16:55**

Uncovering of ICF syndrome phenotypes in hematopoietic differentiation derivatives from patient- and gene corrected-iPSCs  
Tutor: Maria R. Matarazzo

**Maria Elena Onore 16:55 – 17:05**

A new strategy for phase specific mutation detection  
Tutor: Vincenzo Nigro