PhDays 2018
PhD Programme in Molecular Life Science
Aula Magna, Università degli studi della Campania "Luigi Vanvitelli"

Day1 Monday, 24 September 2018

09:30– 10:00 Andrea Riccio – Opening of the PhDays 2017

10:00 – 12:05 Session 1

Gene Regulation and Computational Biology

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

Basilia Acurzio 10:00 – 10:15
Unraveling the molecular bases of genomic imprinting disorders: new KRAB-ZFP players in maintenance of DNA methylation
Tutor: Andrea Riccio

Ankit Verma 10:15 – 10:25
Identification of novel proteins interacting with imprinting control regions in allele specific manner
Tutor: Andrea Riccio

Tiziana, Francesca Bovier 10:25 – 10:35
Effects of the 17-α-ethinylestradiol on Drosophila melanogast
Tutor: Anna Filomena Digilio

Salvatore Fioriniello 10:35 – 10:50
Transcriptional and epigenetic deregulation of glycosphingolipid metabolism in Rett syndrome models
Tutor: Floriana Della Ragione

Monika Krzak 10:50 – 11:05
Clustering for cell type identification in single cell RNA-seq data
Tutor: Claudia Angelini

Ichcha Manipur 11:05 – 11:15
Integrated analysis of multi-omics single cell sequencing data
Tutor: Mario Rosario Guarracino

Daniela Punzo 11:15 – 11:35
Epigenetic landscape of D-amino acids system genes during development and in schizophrenia
Tutor: Alessandro Usiello

Kumar Parijat Tripathi 11:35 – 11:55
Development of novel computational tools, approaches and pipelines for the integration and analysis of high throughput transcriptomics data
Tutor: Mario Rosario Guarracino

Varsha Poondi Krishnan 11:55 – 12:05
Altered DNMT3B functions in Immunodeficiency, Centromere instability and Facial anomalies syndrome cases (ICF1) syndrome
Tutor: Maria R Matarazzo

12:05 – 17:10 Session 2

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

Daniela Caruso 12:05 – 12:20
Self-assembling proteins: GADD45γ amyloid-like cytotoxic aggregates form "*non-toxic*" hydrogels and nanogels
Tutor: Menotti Ruvo and Luigi Vitagliano

Jwala Priyadarsini Sivaccumar 12:20 – 12:30
Chimeric Recombinant Antibody Fragment of anti-Nodal 3D1 and anti-Cripto 1B4 for theranostic applications
Tutor: Menotti Ruvo and Luigi Vitagliano

Laura Capolupo 12:30 – 12:45
In-situ single cell lipidomics by Imaging Mass Spectrometry
Tutor: Giovanni D'Angelo

12:45 – 14:00 Lunch Break

Teresa Maria Carusone 14:00 – 14:15
Biochemical studies of PON2 and its variants: a protein strongly implicated in in development of metabolic diseases
Tutor:Giuseppe Manco

Andrea Corvino 14:15 – 14:25
Structural analysis of the interaction of human prion protein with Cu2 + ion by nuclear magnetic resonance
Tutor: Roberto Fattorusso

Giuseppina Crescente 14:25 – 14:40
UHPLC-ESI-qTOF-MS/MS metabolic profiling of food by-products with nutraceutical and cosmeceutical value
Tutor: Severina Pacifico

Fanny Defranoux 14:40 – 14:55
Exploring the molecular mechanisms of action of "alien metabolites"
Tutor: Ernesto Mollo

Francesca Della Sala 14:55 – 15:05
Strategies based on biomaterials and stem cells for pulmonary tissue engineering
Tutor: Assunta Borzacchiello

Joëlle Ayoub 15:05 – 15:20
Structural and biochemical insights into p150 subunit of Chromatin Assembly Factor 1(CAF-1), a new tumor associated protein
Tutor: Giuseppina De Simone and Simona Maria Monti

Nicola Landi 15:20 – 15:30
Ribotoxin-like proteins in edible mushrooms: purification, characterization and their possible cytotoxic activities
Tutor: Antimo Di Maro

Giovanni Mastroianni 15:30 – 15:45
Untargeted Metabolomics evaluation of nutraceuticals using NMR as main analytical platform Tutor: Antonio Fiorentino

Miguel Moreira 15:45 – 15:55
Structural and functional insights into complement modulation by the complement regulatory protein CD55
Tutor: Rita Berisio and Ruvo Menotti

Alessandra Monti 15:55 – 16:05
Development of inhibitors targeting AIF/CypA lethal complex
Tutor: Nunzianna Doti

Michela Napolitano 16:05 – 16:20
Mechanism of BARS-mediated mitotic Golgi fragmentation
Tutor: Carmen Valente and Anna Chiara De Luca

Odeta Celaj 16:20 – 16:30
Secondary metabolites from Mediterranean plants for nutraceutical and pharmaceutical applications
Tutor: Antonio Fiorentino

Sara Ragucci 16:30 – 16:50
Biological activities of the ribotoxin Ageritin from *Agrocybe aegerita*: a possible novel neurotoxin as tool to study nervous system model cells
Tutor: Antimo Di Maro

Valeria Sivo 16:50 – 17:10
Effects of Zn(II) replacement with Pb(II), Hg(II) or Ni(II) on the structure and function of prokaryotic zinc-finger domain
Tutor: Carla Isernia

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Day2 Tuesday, 25 September 2018

10:00 – 15:35 Session 3

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 – 10:15
Obesity-Driven Neurodegenerative diseases: New insights for new molecular interplayers and therapeutic targets
Tutor:Luigia Cristiano

Simona Cataldi 10:15 – 10:35
Regulation of PPARγ signaling through alternative splicing and dominant negative isoforms
Tutor: Alfredo Ciccodicola

Maria Charalambous 10:35– 10:45
Mitochondrial dynamics as a new therapeutic target for neurodegenerative diseases
Tutor:Prof..Dr. Lucio Nitsch

Chetan Dhakan 10:45 – 10:55
Molecular imaging of vulnerable atherosclerotic plaque in murine model using high frequency & contrast enhanced ultrasound
Tutor:Professor Silvio Aime

Giuseppe Delli Paoli 10:55 – 11:10
The saturation degree of fatty acids and their derived acylcarnitines determines the direct effect of metabolically active thyroid hormones on insulin sensitivity in skeletal muscle cells
Tutor:Pieter de Lange

Federica di Giacomo Russo 11:10– 11:20
Molecular pathways activated by Excitatory Amino Acids in spermatogenesis
Tutor:Prof.ssa Chieffi

Maria Frola 11:20 – 11:30
Use of gene therapy for treatment of retina inherited dominant disorder
Tutor: Prof. Enrico Maria Surace

Francescopaolo Iavarone 11:30 – 11:50
Cripto modulates angiogenesis and EndMT by controlling the shaping of pro-healing macrophages in skeletal muscle regeneration
Tutor: Gabriella Minchiotti

Concetta Iovine 11:50 – 12:05
In vivo evaluation of ellagic acid and curcumin effects in *Danio rerio* embryos
Tutor:Lucia Rocco

Jaipreet Singh Loomba 12:05 – 12:20
Role of Glycosphingolipid metabolic reprogramming in Neuronal Differentiation
Tutor:Giovanni D'Angelo

Federica Liccardo 12:20-12:35
Novel fluorescent probes for precision labeling in super-resolution microscopy
Tutor:Alberto Luini

Maria Mangini 12:35 -12:55
sPLA2-IIA regulates osteoclast differentiation and function
Tutor:Stefania Mariggiò

Mehuli Chakraborty 12:55-13:05
Targeting the cancer (stem) cells – tumor microenvironment crosstalk to improve pancreatic cancer prognosis
Tutor: Enza Lonardo

13:05 – 14:00 Lunch Break

Namrata Iyengar 14:00-14.10
Unravelling autoregulatory signalling circuits controlling export of different cargo classes from the ER
Tutor: DR. Alberto Luini

Emilia Pascale 14:10-14:30
A novel ultraconserved element containing long noncoding RNA is required to preserve transcriptional dynamics and maintain embryonic stem cell selfrenewal
Tutor: Annalisa Fico

Manpreet Patheja 14:30 – 14:45
Mechanism of Interaction of Glycerophosphoinositol and Shp-1
Tutor: Alessia Varone and Daniela Corda

Marta Panella 14:40 – 15:00
Mutual suppression of miR-125a and Lin28b in human hepatocellular carcinoma cells
Tutor: Prof. Aniello Russo

Rita Polito 15:00 – 15:20
Adiponectin and Immunity: This Adiponekine may be a specific biomarker for CVID disease?
Tutor: Prof.ssa AURORA DANIELE

Stefania Serpico 15:20 – 15:35
The Lysophosphatidic Acid Acyltransferase (LPAATs) Enzymes and their Role in Membrane Transport Alterations in Cancer
Tutor: Carmen Valente

15:35 – 17:30 Session 4

Human Genetics

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

Ahmed El-Sharkawy 15:35 – 15:45
The interplay of NEMO, RIPK1 and RIPK3 signaling in the regulation of cell death
Tutor: Matilde Valeria Ursini

Rosita Del Prete 15:45 – 15:55
Characterization of murine models in imprinting disorders
Tutor: Alfonso Baldi

Jamal Naderi 15:55 – 16:05
Histone modification controls subcutaneous adipose tissue hypertrophy on the way towards type 2 diabetes
Tutor: Claudia Miele

Sabrina Napoletano 16:05 – 16:25
CRISPR-Cas9 neuronal cell model to investigate autophagy in neurodegeneration
Tutor: Emilia Vitale

Laura Pignata 16:25 – 16:35
Investigation of ICR2 epimutation in Beckwith-Wiedemann Syndrome
Tutor: Andrea Riccio

Antonella Rendina 16:35 – 16:50
Neuroimmune overlapping mutations leading to dementia: focusing on CD33 and TREM2 genes
Tutor: Emilia Vitale

Federica Scotto di Carlo 16:50 – 17:10
Dissecting the molecular mechanism underlying Paget's Disease of Bone complicated by Osteosarcoma
Tutor: Fernando Gianfrancesco

Lucia Verrillo 17:10 – 17:20
Towards the identification of new therapeutical compounds for a malignant epileptic encephalopathy caused by mutations in *Aristaless-related homeobox* gene
Tutor: Maria Giuseppina Miano

Yi-Shin Lee 17:20 – 17:30
Reactivation of the dormant wild-type allele of MECP2 as a therapy for Rett syndrome: screening of epigenetic compounds
Tutor: Marcella Vacca; Laura Casalino

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Day 3 Wednesday, 26 September 2018

10:00 – 16:40 **Session 5**

Cancer biology, Immunology, Microbiology, Drug design

Chairs: Michele Grieco, Piergiuseppe De Berardinis, Giovanna Del Pozzo, Emilia Vitale, Alfonso Baldi, Margherita Sacco, Fernando Gianfrancesco, Lidia Muscariello

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

Ana Margarida Ferreira Campos 10:10 - 10:20
Modulating innate memory to treat inflammatory diseases
Tutor: Paola Italiani

Deborah Cipria 10:20 - 10:40
Optimization of adoptive T cell therapy by promoting the correct pairing of T cell receptor chains
Tutor: Piergiuseppe De Berardinis

Barbara De Siena 10:40 - 10:55
Characterization of an efflux pump in *Mycobacterium smegmatis.*
Tutor: Lidia Muscariello

Giacomo Della Camera 10:55 -11:05
New approaches to immunotherapy of inflammation through the use of engineered nanoparticles (ENP)
Tutor: Dr. Diana Boraschi

Daniela Esposito 11:05 – 11:25
COMET: a novel oncogenic long non-coding RNA that regulates MET in papillary thyroid carcinoma
Tutor: Valerio Costa

Federica Farina 11:25 – 11:35
Analysis of expression of HLA class II risk alleles in Celiac Disease
Tutor: Giovanna Del Pozzo

Valeria Gaudieri 11:35 – 11:55
Relationship between resistant hypertension and coronary vascular function with ^{82}Rb PET/CT in patients with suspected CAD.
Tutor: Wanda Acampa

Priyanka Gokulnath 11:55 – 12:10
Role of PAX8 in the Fallopian tube epithelium, the site of origin of HGSC
Tutor: Mariastella Zannini

Billy Samuel Hill 12:10 – 12:25
PDGFRβ as a new biomarker for metastatic triple-negative breast cancer: development of a theranostic anti-PDGFRβ aptamer for imaging and suppression of metastases
Tutor: Antonella Zannetti

Pietro Irrera 12:25 – 12:35
Development of MRI-based pH imaging as biomarker of treatment response.
Tutor: Dario Longo

Grant Garren January 12:35 – 12:50
"Exploitation of new strains for drug discovery from deep sea sediments"
Tutor: Donatella de Pascale

Magdalena Kostrzewa 12:50 – 13:00
Cannabinoids and bone: from metabolic to malignant diseases
Tutor: Dr. Fernando Gianfrancesco/ Dr. Alessia Ligresti

13:00 – 14:00 Lunch Break

Narender Kumar 14:00 – 14:15
PD1 increases stemness and proliferation in Thyroid Cancer Stem Cell through Ras activation
Tutor: Prof. Rosa Marina Melillo

Ludovica Liguori 14:15 – 14:30
Pharmacological chaperones to cure genetic diseases
Tutor: Giuseppina Andreotti

Rita Lombardi 14:30 -14:40
A proteomic approach identified HSP90 as a central hub in CDDP-resistant ovarian cancer cells.
Tutor: Dott. Alfredo Budillon

Ali Mokhtar Mahmoud 14:40 – 14:55
Cannabinoids as metabolic reprograming agents in prostate cancer cells
Tutor: Alessia Ligresti

Maria Rita Milone 14:55 – 15:05
Repurposing of valproic acid, simvastatin and aspirin combination as anticancer agents.
Tutor: Alfredo Budillon

Michele Minopoli 15:05 – 15:20
The Urokinase Receptor Antagonist RI-3 potently inhibits sarcoma cell invasion in a 3D organotypic co-culture model
Tutor: Maria Vincenza Carriero

Alejandro Moreiras Figueruelo 15:20 – 15:30
Drug-discovery from marine natural compounds
Tutor: Prof. Angelo Fontana

Olga Pastorino 15:30 – 15:50
Glioblastoma: molecular compounds targeting tumor cells
Tutor: Prof. L. Colucci D'Amato

Pranoy Sahu 15:50 – 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 – 16:10
Development of multifunctional RNA-based therapeutics to selectively target the stem-like glioblastoma cancer cells
Tutor: Vittorio de Franciscis

Marisa Saponaro 16:10 – 16:20
Identification of novel therapeutic strategies to treat neurodegenerative disorders
Tutor: Dott. Angelo Fontana; Dr. Genoveffa Nuzzo,; Dr. Carmela Gallo

Giovanni Andrea Vitale 16:20 – 16:30
Extreme environments as a source of new potential drugs
Tutor: Dr. Donatella de Pascale

Henu Kumar Verma 16:30 – 16:40
High-throughput Tissue based Molecular Classification of Human Gastric Cancer
Tutor: Geppino Falco