#### Ph D school in Biotechnology WINTER SCHOOL ON BIOTECHNOLOGY -2020

Epigenetics: living organisms and environment cross-talk

# 20-23 Gennaio 2019

Aula A3 Polo Biotecnologie

Monday, January 20, 2020

Chair: Stefano Bruscoli - Efisio Puxeddu Medical Epigenetics. Environment and health

Medical Epigenetics, Environment and neatth			
	OPENING		
Katrina Podsypanina	Chromatin Dynamics in Cancer: Epigenetic parameters and cellular fate		
	COFFEE BREAK		
Oxana Bereshchenko	How hematopoietic stem cells withstand the environmental stress: role of		
	glucocorticoid induced leucine zipper (GILZ)		
Marianna Lucafò	Glucocorticoid pharmacoepigenetics in pediatric patients		
	LUNCH		
Pierluigi Tenca	Tapestri Platform – Targeted Single Cells DNA Sequencing in Cancer		
	Genomics Characterization		
Sara Flamini	Glucocorticoid induced leucine zipper (GILZ) regulates liver fibrosis in		
	mice		
Viana de Barros	Role of glucocorticoid-induced leucine zipper in normal and pre-leukemic		
Antonio	hematopoietic stem cell functions		
Davide Sala	Novel combined gene/cell therapy strategies to provide full rescue of the		
	Sandhoff pathological phenotype		
Giulio Capponi	Comparison between methods for measuring mechanical properties of single		
	adherent cells		
Sabata Martino	"Nanomaterials" introducing a scientific journal		
	Katrina Podsypanina  Oxana Bereshchenko  Marianna Lucafò  Pierluigi Tenca  Sara Flamini  Viana de Barros Antonio  Davide Sala  Giulio Capponi		

Tuesday, January 21, 2020 Chair: Loredana Latterini Smart materials for epigenetics

9:00 – 10:30 Iva Pashkuleva Design of glycome-inspired bioinstructive materials 10:30 - 11:00**COFFEE BREAK** 11:00 - 12:00Cell Stimulation by Polymer Photoexcitation (CSPP): Maria Rosa Antognazza a new tool, many open issues Fatty acid structures and lipidomics: from science innovation to health 12:00 - 13:00Carla Ferreri market application 13:00 - 14:30LUNCH 14:30 - 15:30Paolo Capelli Technologies of cryoconservation of biological materials 15:30 - 15:50Niki Tombolesi Probing the biochemistry of heart and kidney tissues using Raman and FTIR micro-spectroscopic techniques 15:50-16:10 Giulia Quaglia New eco-friendly strategies for the synthesis of antimicrobial silver nanoparticles 16:10 - 16:30Martina Alunni How Brillouin and Raman micro-spectroscopy can help to characterize Cardinali bone mechanical and chemical properties Gabriele Magara 16:30 - 16:50 Eco-friendly versus amended antifouling biocides for environmental safety 16:50 - 17:10 Alessandra Riccio In silico and biophysical studies to unravel the molecular basis for PD-1/PD-L1 interaction inhibition

### Wednesday, January 22, 2020

Chair: Sabata Martino

Molecular basis of epigenetics

Motecular basis of	pigenetics	
9:00 - 10:30	Sirio Dupont	ECM stiffness mechanotransduction: how the physical properties of the
		microenvironment control cell behavior
10:30 – 11:00		COFFEE BREAK
11:00 - 12:00	Lucia Catani	Myeloproliferative Neoplasms: a model of study of the molecular and
		microenvironmental regulation
12:00 - 13:00	Emidio Albertini	Investigating DNA methylation in plant response to developmental cues and
		environmental stresses
13:00 - 14:30		LUNCH
14:30 - 15:30	Francesco Morena	Integrated Computational Analysis Highlights unique miRNA Signatures in
		the Subventricular Zone and Striatum of GM2 Gangliosidosis Animal
		Models.
15:30 – 15:50	Angela Conti	Homoplasy: a possible phylogenetic signal to delimit species
15:50-16:10	Federica Delo	Drug-induced phospholipidosis prompts the release of extracellular vesicles
		carrying autophagy- associated markers: new evidence of a general
		mechanism of secretion driven by lysosomal impairment
16:10 – 16:30	Chiara Suvieri	A cross-talk between blood-cell neuroplasticity-related genes and
		environmental enrichment in working dogs
16:30 - 16:50	Anair Graciela Lema	A distinct epigenetic program underlies the 1;7 translocation in
	Fernandez	myelodysplastic syndromes
16:50 - 17:10		Flash Presentations of students (I)

Thursday, January 23, 2020

Chair: Gianluigi Cardinali

9:00 - 10:30	Flavia Marcacci	Empirism, reductionism, realism: approaches for science in the epigenetic
		scenario
10:30 - 11:00		COFFEE BREAK
11:00 - 12:00	Duccio Cavalieri	Epigenetics and the microbiome on the gut brain axis.
12:00 - 13:00		Flash Presentations of students (II)
13:00 - 14:00		LUNCH

## Open Day "Biotechnology and Society"

Thursday, January 23, 2020 ore 17:00

Sala dei Notari

Saluti e apertura lavori

Sindaco di Perugia

Magnifico Rettore Università degli Studi di Perugia

### Relatori

Duccio Cavalieri

Luca Gammaitoni

Flavia Marcacci

Assuntina Morresi

Tomasz Trafny

### Moderatore

Gianluigi Cardinali

Consegna premi messi in palio da Nanomaterials e Zanichelli.