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The Department of Pharmacological and Biomolecular Sciences (DiSFeB)

presents

1



Wednesday, September 18th 2019

Via Balzaretti 9, Milan



Wednesday, September 18th 2019 – SCIENTIFIC PROGRAMME

- 8.30 – 9.15 Registration
9.15 – 9.30 Opening, Alberto Corsini
9.30 – 10.15 Nicola Segata – CIBIO – University of Trento

Uncovering the hidden diversity of the human microbiome for biomedical applications

Everything else is boring – Room A Chairmen: Raffaele De Francesco, Chiara Pavanello	NaturaSi – Room B Chairmen: Alessandra Polissi, Achille Parfait
<p>10.15 – 10.30 Daniela Coggi Plasma Proprotein Convertase Subtilisin/Kexin Type 9 (PCSK9) is associated with vascular risk factors and with an index of subclinical atherosclerosis in European subjects</p> <p>10.30 – 10.45 Daniela Crescenti Development of NIR probes and delivery systems selectively labelling tumor sites</p> <p>10.45 – 11.00 Elena Olmastroni Cumulative exposure to bisphosphonates and risk of cardio-cerebrovascular events: a population-based retrospective cohort study</p> <p>11.00 – 11.15 Federica Mornata Molecular imaging of the neuroinflammatory response in the early stage of Parkinson's disease: role of macrophages and gender.</p>	<p>10.15 – 10.30 Michela Raimondi δ-tocotrienol induces paraptosis, a non-canonical cell death mechanism, in human melanoma cells</p> <p>10.30 – 10.45 Ambra Maddaloni Immunomodulatory effects of the herbicide glyphosate in humans: in vivo and in vitro exposure</p> <p>10.45 – 11.00 Simone Biella In vitro evaluation of the gastric anti-inflammatory activity of different grape varieties</p> <p>11.00 – 11.15 Giulia Martinelli Ellagitannins: potential natural compounds against gastric <i>H. pylori</i> infection</p>

11.15 – 11.45 Coffee break

Vesicles and the philosopher's stone – Room A Chairmen: Roberto Casimo Melcangi, Silvia Pelucchi	Atomistic – Room B Chairmen: Paola Sacerdote, Stefano Manzini
<p>11.45 – 12.00 Barbara Tedesco Deepening the characterization and behaviour of mutants of the BCL-2 Associated Athanogene 3 (BAG3)</p> <p>12.00 – 12.15 Algerta Marku The LRRK2 variant E193K affects the readily releasable pool of synaptic vesicles via modulation of LRRK2 interactome</p> <p>12.15 – 12.30 Felice Accattatis Separation and characterization of different Extracellular Vesicles populations. In vitro studies from a lymph-node metastatic melanoma cell line</p> <p>12.30 – 12.45 Electra Brunialti Morpho-functional analysis of microglia in a cell culture model of Gaucher disease</p> <p>12.45 – 13.00 Stefano Raffaele Effects of activated microglia-derived extracellular vesicles on GPR17-expressing oligodendrocyte precursor cells and post-stroke recovery</p>	<p>11.45 – 12.00 Marta Turri Three new Italian cases of LCAT deficiency</p> <p>12.00 – 12.15 Tommaso Laurenzi Computational modelling of the LCAT::rHDL molecular recognition mechanism</p> <p>12.15 – 12.30 Elisabete C. Cardoso Mendes Moura A bacterial two-hybrid system adapted for the in vivo screening of inhibitors of the <i>E. coli</i> Lipopolysaccharide transport (Lpt) system assembly.</p> <p>12.30 – 12.45 Luca Palazzolo SLC6A14, a pivotal actor on cancer stage: when function meets structure</p> <p>12.45 – 13.00 Veronica Bonalume Constitutive GABA_A receptor-mediated depolarization in peripheral C-fiber axons</p>

13.00 – 14.00 Light Lunch



(He)Art attacks the brain – Room A Chairmen: Danilo G. Norata, Paola Brivio	Food, metabolism & Co. – Room B Chairmen: Fabio Fumagalli, Annalisa Moregola
<p>14.00 – 14.15 Federica Bonaiti Diagnosis of Familial Hypercholesterolemia in the clinical practice: performance of Dutch Lipid Clinic Network score and evaluation of other potential diagnostic factors</p> <p>14.15 – 14.30 Marta Gazzotti Prevalence of statin-associated muscle symptoms in Italy: the PROSISA study</p> <p>14.30 – 14.45 Silvia Tangianu Selenium in early life as a strategy to promote neurodevelopment after Lead exposure</p> <p>14.45 – 15.00 Alice Sanson Investigating the modulatory activity of the novel drug SEP-363856 in the phencyclidine model of schizophrenia.</p> <p>15.00 – 15.15 Luca Franchini Linking NMDA receptor synaptic retention to synaptic plasticity and cognition</p> <p>15.15 – 15.30 Clara Alice Musi JNK role in animal and human Rett Syndrome models: its inhibition is an innovative therapeutic strategy</p>	<p>14.00 – 14.15 Francesca Telese Investigating the glutamate synapse in an animal model of anorexia nervosa</p> <p>14.15 – 14.30 Lorenzo Da Dalt PCSK9 a link between lipid metabolism and cardiac function</p> <p>14.30 – 14.45 Silvia Pedretti Integrated approaches to investigate the role of the mitochondrial regulator Zc3h10 in adipocytes</p> <p>14.45 – 15.00 Leonardo Sandrini Free voluntary exercise ameliorates the white adipose tissue profile and prevents the prothrombotic phenotype in BDNFVal66Met mutant mice</p> <p>15.00 – 15.15 Dalma Cricri Silencing of histone deacetylase 3 at different stages of differentiation: epigenetic effects on adipocyte metabolism</p> <p>15.15 – 15.30 Veronica Zampoleri Post-prandial lipemia and CD36 expression in circulating cells</p> <p>15.30 – 15.45 Carolina Peri Role of class I HDACs during adipocyte differentiation: an imprinting towards oxidative and brown-like phenotype</p>

15.45 – 16.45 Stay tuned!

16.45 – 17.00 Closing remarks, Alberto Corsini

17.00 Happy Hour



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***In vitro* evaluation of the gastric anti-inflammatory activity of different grape varieties**

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ABSTRACT

In the past few years, several studies have shown that the Mediterranean diet is an important source of protective compounds that contribute to reduce risk factors for several chronic diseases. The Mediterranean diet traditionally includes a high consumption of vegetables and fruits, important source of phenolic compounds. In more detail, flavonoids and their metabolites, which belong to the most abundant phenolic fraction, are generally responsible for the antioxidant and radical scavenging activity.

Some unfermented products from vine (*Vitis vinifera* L.), such as leaves and dried grapes, have been associated with a reduction of gastric inflammation, as shown by *in vitro* tests. On the other hands, the antioxidant and anti-inflammatory activity of fresh grapes has not been previously investigated. On this basis, the objectives of the research were: 1) the characterization of the phenolic pattern of some grape varieties using a High-Performance Liquid Chromatography (HPLC) coupled with electrospray ionization mass spectrometric (ESI-MS) method; 2) the *in vitro* evaluation of the associated antioxidant property; and 3) the anti-inflammatory properties at gastric level. The assessment of radical scavenging activity was performed by DPPH (1,1-diphenyl-2-picrylhydrazyl) spectrophotometric assay. As for the anti-inflammatory activity, grape extracts were assayed for their efficacy in inhibiting IL-8 release from human gastric epithelial cells (AGS) after their treatment with TNF- α . IL-8 levels were measured by Enzyme Linked Immunosorbent Assay (ELISA).

The LC-MS analysis allowed a preliminary characterization of 16 grape samples including 7 white table grape varieties, 6 red table grape varieties and 3 red wine varieties for comparison, where 67 phenolic compounds were identified. The anti-inflammatory activity was tested on 2 grape samples, selected for their favorable phenolic profile and higher antioxidant activity (measured with the DPPH assay). The contribution of each part of the fruit (peel, pulp and seeds) to the biological activity has been also evaluated.

The good correlation between the biological assays and the phenolic profile suggests that the active components of grapes could counteract the oxidative stress that occurs during the inflammatory process.