

7^o Meeting of Young Researchers in Physiology

Villa Orlandi
Anacapri (NA) – May 21-23 2013

Tuesday 21 May 2013

14.30 - 15.00 Registration of the participants

15.00 - 15.30 Opening Ceremony and Cocktail

15.30 - 16.30 Keynote lecture I – “From why to how: Claude Bernard and the second biomedical revolution”

Fiorenzo Conti

16.30 - 18.30 Oral communications

Chairmen: Bruno De Luca – Paolo Mondola

Nutrition and metabolism

Maria Coppola (Sannio Univ.): The hypocholesterolemic effects of 3,5-diiodo-L-thyronine in LDL receptor Knock-out mice (LDLR^{-/-}): impact on liver proteome and key transcriptional factors.

Martina Di Maro (“Federico II” Naples Univ.): Protective effects of oleuropein and pinoreosinol on rat microvascular pial damage induced by hypoperfusion and reperfusion.

Pasquale Lasala (Naples Second Univ.): Impact of high fat diet on mitochondrial DNA damage and repair in rat liver.

Cristina Leanza (Naples Second Univ.): A contributing role for hepatic sirtuins in the prevention of diet-induced adiposity by 3,5-diiodo-L-thyronin (T₂).

Teresa Mastantuono (“Federico II” Naples Univ.): Vaccinium myrtillus anthocyanins protect hamster pial microcirculation from ischemia-reperfusion injury.

Martina Montisano (“Federico II” Naples Univ.): The effects of diet on uric acid metabolism and body composition.

Espedita Muscariello (“Federico II” Naples Univ.): Aging and sarcopenia in obese peoples.

Tiziana Novellino (“Federico II” Naples Univ.): Hypolipidic diet and phyto substance dietary supplement effects on steatosis and obesity.

Concetta Punzo (“Federico II” Naples Univ.): Increased ability of c9,t11 conjugated linoleic acid isomer to attenuate high fat diet-induced pro-oxidant and pro-inflammatory effects associates to improved Nrf2-mediated defences and mitochondrial uncoupling.

Francesca Scazzina (Parma Univ.): Dietary polyphenols gut microbiota - a virtuous backscratching in primary prevention?

Giovanna Trinchese (“Federico II” Naples Univ.): Effects of diet supplementation with human, donkey or cow milk on energy balance, lipid metabolism, liver mitochondrial bioenergetics, antioxidant and anti-inflammatory defences in rats.

Wednesday 22 May 2013

9.00 - 10.30 Oral communications

Chairmen: Marcella Motta - Marcellino Monda

Neuroscience1

Linda Colecchi (L'Aquila Univ.): Retinal neurodegeneration and neuroprotection: modulation of neuroinflammatory pathways.

Federica De Simone ("Federico II" Naples Univ.): Electrophysiological and anatomical characterization of hippocampal afference to the murine prefrontal cortex.

Mattia Di Paolo (L'Aquila Univ.): Retinal neurodegeneration: photobiomodulation and saffron treatment.

Marta Gritti (Milan Univ.): Involvement of CLIC1 protein in axon elongation in isolated mouse retinal ganglion cells.

Ambra Lanzo (CNR-Naples): *Caenorhabditis elegans* as a genetic model to investigate neurodegeneration.

Onofrio Petruzzelli (Bari Univ.): Identification of anti-neuronal antibodies in the serum of patients with Tourette's syndrome.

Valerio Piscopo ("Federico II" Naples Univ.): Mash1 and Nurr1 cooperation in the differentiation of Neural Stem Cells into Dopaminergic Neurons.

Salvatore Pulcrano ("Federico II" Naples Univ.): Transcription factors cooperation during midbrain dopaminergic phenotype differentiation .

10.30 - 11.00 Coffe break

11.00 - 12.30 Special lecture – "Grant Application in Physiology"

Prof. Giovanni Di Minno

12.30 - 13.30 Lunch

13.30 - 16.00 Oral communications

Chairmen: Carla Perrone Capano – Paolo Mondola

Neuroscience 2

Annalisa Bosco (Bologna Univ.): Encoding of reaching kinematics in 3D space.

Carlo Bruttini (Milan Univ.): Ischemic nerve block of the forearm abolishes finger movements but not the associated APAs.

Riccardo Calletti (Verona Univ.): Psychophysiological correlates of the attentional bottleneck: an ERP study of spatial selective attention.

Roberto De Gregorio (Naples Second Univ.): Identification of miRNA involved in midbrain dopaminergic neurons differentiation and maintenance.

Fabio Di Bello ("La Sapienza" Rome Univ.): Neural signatures of motor preparation and suppression in the dorsal premotor cortex of non-human primates.

Manuela Fadda (Genova Univ.): SYN2 mutations associated with ASD underlie alterations in neuronal development and synaptic function.

Claudia Galati (Urbino Univ.): α -Tocopherol reduces neuroinflammation in the rat brain after kainic acid-induced status epilepticus.

Valentina Mione ("La Sapienza" Rome Univ.): Prefrontal cortex neurons of non-human primates are modulated by a transitive inference task.

Michela Persiani (Bologna Univ.): Influence of optic flow stimuli on postural stability: EMG and stabilometric analysis.

Silvia Spadacenta ("La Sapienza" Rome Univ.): Arm reaching movements and implicit encoding of action-related verbs: evidence for an embodied memory account.

Luisa Speranza ("Federico II" Naples Univ.): The serotonin receptor 7 modulates neuronal morphology in vitro and in vivo.

- 16.00 - 16.30 Coffe break
16.30 - 17.30 Keynote lecture II – “The state of the art of Italian Physiology”
Fabio Benfenati

Thursday 23 May 2013

9.00 - 11.00 Oral communications

Chairmen: Carla Perrone Capano – Giovanni Pizzuti

Cell Physiology 1

Sheila Maria Alvarez Fernandez (San Raffaele Scientific Institute, Milan): Serological immune response against ADAM10 in colorectal cancer patients and its role in tumor progression.

Michelangelo Auteri (Palermo Univ.): “*In medio stat virtus*”: concentration-dependent effects of GABA on colonic motor patterns in mice.

Giulia Campostrini (Milan Univ.): Isolating sinoatrial precursors from embryonic stem cells for the development of a biological pacemaker.

Silvia Franzellitti (Bologna Univ.): Transcriptional regulation of a *ABCB* gene product encoding the ABC transporter P-glycoprotein in the Mediterranean mussel (*Mytilus galloprovincialis*)

Stefano Garofalo (“La Sapienza” Rome Univ.): Effects of environmental enrichment on glioblastoma progression.

Simona Martinotti (“Amedeo Avogadro” Piemonte Orientale Univ.): Ascorbate/epigallocatechin-3-gallate/gemcitabine: a synergistic combination that induces cell cycle deregulation and apoptosis in mesothelioma cells.

Marta Peretti (Milan Univ.): Pharmacological characterization and biophysical properties of CLIC1 single ionic channel in glioma cells.

Daniela Sapiro (“Federico II” Naples Univ.): Effects of bone mesenchymal stem cells on the rat pial microvascular remodeling after transient middle cerebral artery occlusion and different reperfusion times.

Anna Sasso (“Federico II” Naples Univ.): Inducible SOD1 release in excitable cells and its activation of muscarinic M1 receptor in SK-N-BE cells.

Pasquale Simeone (Chieti Univ.): A unique protein cluster drives glioma progression.

11.00 - 11.30 Coffe break

11.30- 13.00 Oral communications (Group V)

Chairmen: Marcella Motta – Ferdinando Goglia

Muscle Physiology

Valentina Agoni (Pavia Univ.): The adaptations of mice skeletal muscle to short term steroid administration.

Elisabetta Brunello (Florence Univ.): Temperature dependence of myosin filament structure in relaxed mammalian muscle.

Marco Caremani (Florence Univ.): The sarcomere isotonic velocity transient measured in demembrated rabbit psoas fibres reveals how the array arrangement of muscle myosin maximizes the power.

Josè Dantas (Chieti Univ.): Validation of a short time trial to evaluate cycling performance.

Michael Di Palma (Urbino Univ.): Motor activity and muscle re-innervation: the influence of different patterns of exercise.

Giulia Falorsi (Florence Univ.): Kinetics and mechanics of frog myosin II and its proteolytic fragments.

Damiano Formenti (Milan Univ.): Skin temperature modifications during physical exercise measured by infrared thermography.

Antonio Michelucci (Chieti Univ.): N-acetylcystein protects calsequestrin-1 knockout mice from malignant hyperthermia (MH) and environmental heat-stroke (EHS).

Francesca Solagna (Padua Univ.): The role of S6K in the regulation of skeletal muscle mass and function.

13.00 - 14.00 Lunch

14.00 - 16.00 Oral communications (Group VI)

Chairmen: Carla Perrone Capano – Antonio Colantuoni

Cell Physiology 2

Claudiopietro Carotenuto (Siena Univ.): The functional role of MIF (Macrophage migration Inibitory Factor) in human placenta.

Davide Antonio Civello (Milan Univ.): ICln protein interaction with 4.1R80 and 4.1R135: effect on cell morphology and cell volume regulation.

Matteo Giovanola (Milan Univ.): Chloride dependence and coupling mechanism in the NSS amino acid transporter KAAT1 are linked by Thr 67, the residue bridging the Na⁺ binding sites.

Maria Grillo (Palermo Univ.): Identification and functional binding analysis of GPR23/LPA4 as a candidate G protein-coupled receptor for Guanosine.

Stefania Moretti (Milan Univ.): The glutamate transporter GLT1 in islets of Langherans: localization and function in physiological and pathological conditions.

Valeria Pesiri (Rome 3 Univ.): 17β-estradiol-induced cell proliferation requires a functional ubiquitin binding surface on estrogen receptor (ER) α.

Elia Ranzato ("Amedeo Avogadro" Piemonte Orientale Univ.): Honey promotes epithelial mesenchymal transition in human keratynocytes.

Jenni Repo (Eastern Finland Univ.): Effects of ethanol and nicotin on human placenta.

Valeria Rossetti (Milan Univ.): Oxidative stress induced by cigarette smoke and possible protective role of S-CMC-LYS.

Roberto Ruffini (Chieti-Pescara Univ.): Adaptation and olfactory threshold at high-altitude.

16.00 - 16.30 Coffe break

16.30 - 17.30 Keynote lecture III – "Vitamin D and cardiovascular prevention: a plausible perspective?"

Prof. Pasquale Strazzullo

20.00 Social Dinner & Award Ceremony