

Programme

Thursday May 25

13.00-14.00 **Registration of the participants**

14.30-15.00 **Opening ceremony**

15.00-16.00 **Lecture I**

Elena Fabbri (University of Bologna) - Adrenergic signaling in teleost fish: a challenging path

16.00-17.15 **Communications: Neuroscience I**

Rosario Amato (University of Pisa) - Neural degeneration mechanisms in diabetic retinopathy (DR): the role of apoptosis and autophagy

Stefano Di Marco (University of L'Aquila) - Consequences of photoreceptors malfunctioning on the inner retina processing

Mattia Di Paolo (University of L'Aquila) - A polymer-based interface as potential retinal prosthesis in blind rats

Serena Riccitelli (University of L'Aquila) - Time-course of morpho-functional modifications following an acute light induced retinal damage

Martina Chiacchiarretta (IIT, Genova) - Impact of graphene-related materials on primary glial cells

17.15-17.45 **Coffee break**

17.45-19.15 **Communications: Cell physiology I**

Mascia Benedusi (University of Ferrara) - Redox modulation of keratinocytes circadian clock

Daniele Zanella (University of Insubria) - Metal nanoparticles interactions with cell membranes cause alterations of cell membrane parameters

Leonardo Dini (University of Firenze) - Isoform-selective blockade of HCN channels in dorsal root ganglion neurons as a potential pharmacological strategy against pain

Anthony Frosio (University of Milano) - A novel SCN5A mutation found in a patient affected by Brugada Syndrome

Giorgia Giansante (University of Genova) - Differentiation of human induced pluripotent stem cells (hiPSC) into functional neurons o model PRRT2-related disorders

Arianna Romani (University of Ferrara) - New insights on cutaneous SRB1 functions

Friday May 26

9.00-10.00 Communications: Neuroscience II

Rossana Rauti (SISSA, Trieste) - Graphene Oxide Nanosheets Reshape Synaptic Function in Hippocampal Networks

Laura Civiero (University of Padova) - The Parkinson's disease-linked LRRK2 covers a relevant role in astroglial physiology

Ludovica Iovino (University of Firenze) - ATP and astrocytes are involved in the lamprey respiratory control

Cosimo Prestigio (IIT, Genova) - A REST/NRSF-dependent transcriptional pathway governs synaptic homeostasis induced by chronic hyperactivity

10.15-11.15 Lecture II

Egidio D'Angelo (University of Pavia) - Understanding the brain using advanced modeling strategies - Achievements from the HUMAN BRAIN PROJECT

11.15-11.45 Coffee break

11.45-13.00 Communications: Innovative experimental approaches

Lea Biasutti (University of Udine) - The O₂ cost of wheelchair propulsion is not higher in tetraplegic and paraplegic patients with incomplete spinal cord injuries vs. controls

Samantha Cannazzaro (LENS, University of Firenze) - Optical mapping in rat models of atrial dilatation

Erez James Cohen (University of Firenze) - 3D reconstruction of movement in a single projection by dynamic marker scaling

Erica Lazzeri (LENS, University of Firenze) - Mesoscale imaging of the cardiac conduction system

Marina Scardigli (LENS, University of Firenze) - Probing passive electrical properties of the cardiac T-tubular system by FRAP microscopy

13.00-14.00 Lunch

14.30-15.45 Communications: Cell physiology II

Teresa Sorbo (SISSA, Trieste) - Exploring hybrid networks made by neurons and progenitors cells

Claudia Busonero (University of Roma Tre) - Selective modulation of the estrogen receptor α levels and degradation in breast cancer

Manuela Cipolletti (University of Roma Tre) - The effect of the food component Naringenin on Neuroglobin, an E2-inducible protein involved in cell survival

Daniele La Russa (University of Calabria) - Oxidative imbalance and kidney damage in spontaneously hypertensive rats: activation of extrinsic apoptotic pathways

Francesca Vacca (University of Insubria) - Molecular modification and functional studies of two PepT1 isoforms of *Salmo salar*: new insights of PepT1a

15.45-16.45 **Communications: Gastrointestinal system and nutrition**

Giulia Sedda (University of Pavia) - Trafficking and intracellular processing of *Helicobacter pylori* vacuolating toxin

Marzia Sichetti (University of Perugia) - The leading role of the epithelial permeability in gastrointestinal inflammation

Rachele Garella (University of Firenze) - Glucagon-like peptide-2 (GLP-2) modulates the nitroergic neurotransmission in the mouse gastric fundus

Martina Di Maro (University of Napoli Federico II) - Oleuropein effects on skin blood flow oscillations of hyperlipidemic obese patients

16.45-17.15 **Coffee break**

17.15-18.30 **Communications: Heart and circulation**

Stefano Camelio (University of Brescia) - Cardiovascular responses and baroreflex sensitivity during apnoea phase 1 in spinal cord injury

Francesca Gentile (University of Firenze) - Pathophysiology and therapeutic targets in hypertrophic cardiomyopathy are mutation-rather than disease-specific

Francesca Pinzauti (University of Firenze) - The molecular basis of the efficiency of the heart

Lorenzo Santini (University of Firenze) - The efficacy of late sodium current blockers in hypertrophic cardiomyopathy is dependent on genotype: a study on transgenic mouse models with different mutations

Giulia Vitale (University of Firenze) - The impact of HCM-associated mutations on cardiac muscle phenotype depends on tissue loading conditions

20.00 **Social dinner**

21.30 **Concert "D'Ampezia"**

Saturday May 27

9.15-10.15 **Communications: Neuroscience III**

Veronica Cartocci (University of Roma Tre) - Brain cholesterol/isoprenoid metabolism is related to behavioral changes: autistic rats as experimental model

Letizia Moscato (University of Pavia) - Theta-patterned tactile stimulation modifies deep cerebellar nuclei neurons responsiveness *in vivo*

Teresa Soda (University of Pavia) - Cerebellar hyper-plasticity in the IB2 KO mouse model of autism

Silvia Eusebi (University of Urbino) - Maternal creatine supplementation affects LTP in CA1 hippocampal neurons in rat offspring

10.30-11.30 **Lecture III**

Antonio Colantuoni (University of Napoli Federico II) - From the bat wing to the regulation of microvascular blood flow

11.30-11.45 **Coffee break**

11.45-12.30 **Communications: Skeletal and smooth muscle**

Eglantina Idrizaj (University of Firenze) - Relaxin influences ileal smooth muscle activity in mice preparations through a dual signaling pathway

Alessandro Messere (University of Torino) - Tissue oxygenation affects hyperaemia during repetitive muscle compression

Claudia Pecorai (University of Chieti) - Role of *STIM1* and *Orai1* in the formation of tubular aggregates in ageing skeletal muscle fibers

13.00-14.00 **Lunch**

14.30-15.00 **Award ceremony**