

## Programma

9:30 – 10:30 – Registrazione

10:30 – 10:40 – Benvenuto

10:45 – 11:45 – Lectio Magistralis, Prof. Tullio Pozzan, Università di Padova

**Microdomini intracellulari dei secondi messaggeri: meccanismi di generazione e ruolo funzionale**

12:00 – 13:00 – Lunch

12:00 – 17:00 – Sessione Poster

16:00 – 17:00 – Sessione Cocktail

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Il Libretto degli Abstracts è disponibile online

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## Libretto dei Titoli e degli Autori

Nell'ordine dell'esposizione dei posters

### Poster N° 1

**A NEW F1/FO-ATP SYNTHASE INHIBITOR FOR THE TREATMENT OF MYOCARDIAL REPERFUSION INJURY**

**G. Aquila**, L. Marracino, G. Morciano, D. De Marco, D. Preti, G. Pedriali, C. Trapella, P. Rizzo, G. Campo, R. Ferrari and P. Pinton.

*Department of Medical Sciences, University of Ferrara, Ferrara, Italy;*

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### Poster N° 2

**PHOTOCATALYTIC ACTIVITY OF POLYMER NANOPARTICLES MODULATES INTRACELLULAR CALCIUM DYNAMICS AND REACTIVE OXYGEN SPECIES IN HEK-293 CELLS**

Caterina Bossio, **Ilaria Abdel Aziz**, Gabriele Tullii, Elena Zucchetti, Mattia Zangoli, Francesca Di Maria, Guglielmo Lanzani, Maria Rosa Antognazza

*Center for Nano Science and Technology@PoliMi, Istituto Italiano di Tecnologia, via Giovanni Pascoli 70/3, 20133 Milano, Italy*

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### **Poster N° 3**

#### **THE INTERACTION OF SiO<sub>2</sub> NANOPARTICLES WITH THE NEURONAL PLASMA MEMBRANE: MODULATION OF IONIC CURRENTS AND CALCIUM INFLUX**

Carla Distasi, Marianna Dionisi, Alessandra Gilardino, Roberta Bardini, Federico Alessandro Ruffinatti, Susanna Antoniotti, Federico Catalano, Eleonora Bassino, Luca Munaron, Gianmario Martra, Davide Lovisolo

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### **Poster N° 4**

#### **TRP EXPRESSION SIGNATURE IN TUMOR-DERIVED ENDOTHELIAL CELLS: FUNCTIONAL ROLES IN PROSTATE CANCER ANGIOGENESIS**

Alessandra Fiorio Pla, Michela Bernardini, Guillaume Grolez, Alessia Brossa, Giulia Trimaglio, Aditi Joshi, Virginie Mattot, Gaëlle Fromont-Hankard, Fabrice Soncin, Luca Munaron, Benedetta Bussolati, Natalia Prevarskaya, & Dimitra Gkika

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### **Poster N° 5**

#### **MODULATION OF INTRACELLULAR CA<sup>2+</sup> CONCENTRATION IN BRAIN MICROVASCULAR ENDOTHELIAL CELLS ACTIVELY INDUCED BY BRAIN TARGETED LIPOSOMES**

Greta Forcaia, Beatrice Formicola, Roberta Dal Magro, Sharon Negri, Francesco Moccia, Francesca Re and Giulio Sancini

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### **Poster N° 6**

#### **BIOACTIVE MOLECULES EXTRACTED FROM OLIVE POMACE PROTECT CELLS FROM CALCIUM MEDIATED DAMAGES**

Alice Franchi, Alessandro A. Casazza, Antonino Martines, Marco Pedrazzi, Roberta De Tullio, Patrizia Perego, Mauro Patrone, Monica Averna

*Department of Experimental Medicine (DIMES) - Biochemistry Section, University of Genoa, Italy*

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### **Poster N° 7**

#### **OPTICAL CONTROL OF ENDOTHELIAL PROGENITOR CELLS FATE MEDIATED BY LIGHT SENSITIVE CONJUGATED POLYMERS**

Francesco Lodola, Gabriele Tullii, Andrea Desii, Laura Tapella, Dmitry Lim, Vittorio Rosti, Francesco Moccia and Maria Rosa Antognazza.

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### **Poster N° 8**

#### **EARLY IMPAIRMENTS OF NMDA RECEPTORS FUNCTION INDUCED BY ABETA42 OLIGOMERS**

Maria Sabina Cerullo, Pol Buxeda, Valentina Carabelli, Emilio Carbone, Andrea Marcantoni

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### **Poster N° 9**

#### **INTRA VS. INTERMOLECULAR COMMUNICATION IN PROTEINS REVEALED BY MOLECULAR DYNAMICS SIMULATIONS: A GCAP1 STORY**

Valerio Marino, Daniele Dell'Orco

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### **Poster N° 10**

**PREFERENTIAL BINDING OF  $Mg^{2+}$  OVER  $Ca^{2+}$  TO CIB2 TRIGGERS AN ALLOSTERIC SWITCH IMPAIRED IN USHER SYNDROME TYPE 1J**

**Rosario Vallone**, Giuditta Dal Cortivo, Mariapina D'Onofrio, Daniele Dell'Orco

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**Poster N° 11**

**GUANYLATE CYCLASE ACTIVATING PROTEIN 1 MUTANTS ASSOCIATED WITH RETINAL DYSTROPHY: A BIOCHEMICAL INVESTIGATION**

**Giuditta Dal Cortivo**, Valerio Marino, Elisa Oppici, Francesco Boni, Mario Milani, Daniele Dell'Orco

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**Poster N° 12**

**CALCIUM AND THE REGULATION OF THE VISUAL SENSORY SYSTEM: A MULTISCALE INVESTIGATION FROM MOLECULES TO NETWORKS**

**Daniele Dell'Orco**

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**Poster N° 13**

**HONEY MEDIATED WOUND HEALING:  $H_2O_2$  ENTRY THROUGH AQP3 DETERMINES EXTRACELLULAR  $Ca^{2+}$  INFLUX.**

**Simona Martinotti**, Umberto Laforenza, Mauro Patrone, Francesco Moccia, Elia Ranzato

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**Poster N° 14**

**ENDOTHELIAL CELLS IN TISSUE REGENERATION: THE MASTERMIND ROLE OF INTRACELLULAR CALCIUM IN A PL-DRIVEN WOUND HEALING PROCESS.**

Simona Martinotti, Mauro Patrone, Laura Mazzucco, Francesco Moccia, **Elia Ranzato**

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**Poster N° 15**

**PHOSPHOLIPASES CAUSE TRANSIENT INCREASES OF  $H^+$  AND  $Ca^{2+}$  CONCENTRATIONS.**

**Giuliano Molinari**, Elsa Nervo

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**Poster N° 16**

**SPATIOTEMPORAL HETEROGENEITY OF MITOCHONDRIAL  $Ca^{2+}$  SIGNALS ACTIVATED BY CANCER PHOTODYNAMIC THERAPY *IN VIVO***

**Chiara Nardin**, Chiara Peres, Flavia Mazzarda, Marcello Raspa, Ferdinando Scavizzi, Francesco Chiani, Francesco Di Virgilio, Anna Maria Salvatore, Fabio Mammano

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**Poster N° 17**

**CALCIUM HANDLING IN PORCINE CORONARY ENDOTHELIAL CELLS BY MONOMERIC ADIPONECTIN**

**Giulia Raina**<sup>1</sup>, Serena Farruggio<sup>1</sup>, Carlotta Morazzoni<sup>1</sup>, Carlotta Zavatto<sup>1</sup>, Elena Grossini<sup>1</sup>

**Poster N° 18**

**ASTROCYTES AS CELL TARGETS FOR THERAPEUTIC INTERVENTION IN ALS**

Daniela Rossi, Giulia Guidotti, Francesca Martorana, Eleonora Aronica, Chiara F. Valori, Paola Bezzi and Liliana Brambilla

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**Poster N° 19**

**TIME-FREQUENCY ANALYSIS OF CALCIUM OSCILLATIONS IN NERVE CELLS**

Ruffinatti Federico, Ferraro M, Lovisolo D, Distasi C

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**Poster N° 20**

**P2XR<sub>7</sub>-DEPENDENT PURINERGIC REGULATION OF TUMOR VASCULARIZATION**

Scarpellino G., Genova T., Bernardini M., Zicola E., Mancardi D., Bussolati B., Munaron L.

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**Poster N° 21**

**SUPRA-LINEAR CA<sup>2+</sup> DEPENDENCE OF THE NEUROTRANSMITTER RELEASE AT MAMMALIAN VESTIBULAR RIBBON SYNAPSES**

Paolo Spaiardi, Water Marcotti, Roberta Giunta, Sergio Masetto & Stuart L. Johnson

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**Poster N° 22**

**BITTER TASTE RECEPTOR HTAS2R46 ACTIVATION REGULATES MITOCHONDRIAL CA<sup>2+</sup>-BUFFERING IN AIRWAY SMOOTH MUSCLE CELLS**

Maria Talmon, Silvia Rossi, Federica Pollastro, Dmitry Lim, Armando A Genazzani, Luigia G Fresu

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**Poster N° 23**

**FROM PATCH-CLAMP TO MICRO-GRAPHIC ARRAYS TO STUDY THE ACTIVITY OF DOPAMINERGIC NEURONS**

Giulia Tomagra, Federico Picollo, Andrea Marcantoni, Alfio Battiato, Alberto Pasquarelli, Emilio Carbone, Paolo Olivero, Valentina Carabelli

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**Poster N° 24**

**SYNTHESIS AND CHARACTERIZATION OF NOVEL TRPM8 AGONISTS TO TARGET PROSTATE CANCER PROGRESSION**

Sonja Visentin, Alessandra Gilardino, Giorgia Chinigò, Alessandra Fiorio Pla

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**Poster N° 25**

**DEFECTIVE CA<sup>2+</sup> HOMEOSTASIS IN DIFFERENT CELL MODELS OF AMYOTROPHIC LATERAL SCLEROSIS**

Maria Lina Massimino, Caterina Peggion, Rosa Pia Norante, Raffaele Lopreiato, Tito Cali, Kelly Nies, Federica Lia, M. Catia Sorgato & Alessandro Bertoli

*CNR – Neuroscience Institute, University of Padova, Padova*

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**Poster N° 26****OXALIPLATIN INDUCES PH ACIDIFICATION IN DORSAL ROOT GANGLIA NEURONS**

Riva Beatrice, Dionisi M., Potenzieri A., Chiorazzi A., Cordero-Sanchez C, Rigolio R., Carozzi VA., Lim D., Cavaletti G., Marmiroli P., Distasi C., Genazzani AA.

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**Poster N° 27****NEW INSIGHTS ON THE ROLE OF STORE-OPERATED CALCIUM-ENTRY IN RARE GENETIC DISEASES**

Cordero-Sanchez Celia, Riva B, Griglio A, Serafini M, Reano S, Filigheddu N, Pirali T and Genazzani AA

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**Poster N° 28****TYPE 2 DIABETES ALTERS CA<sup>2+</sup> HANDLING IN RAT AORTIC VASCULAR SMOOTH MUSCLE CELLS**

Berra-Romani Roberto, Moreno-Salgado Adriana, Pérez Becerra Job, Francesco Moccia

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**Poster N° 29****LYSOSOMAL CA<sup>2+</sup> SIGNALING IN METASTATIC COLORECTAL CARCINOMA**

Pawan Faris, Giorgia Pellavio, Federica Ferulli, Dizar Ali Kheder, Marcello Maestri, Mudhir Shekha, Paolo Pedrazzoli, Umberto Laforenza, Daniela Montagna, Francesco Moccia

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**Poster N° 30****ACETYLCHOLINE INDUCES CA<sup>2+</sup> SIGNALS AND NITRIC OXIDE RELEASE IN HUMAN BRAIN MICROVASCULAR ENDOTHELIAL CELLS**

Estella Zuccolo, Umberto Laforenza, Sharon Negri, Laura Botta, Roberto Berra-Romani, Pawan Faris, Greta Forcaia, Giorgia Pellavio, Giulio Sancini, Francesco Moccia

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**Poster N° 31****CONTROL OF NEURONAL PROTEIN EXPRESSION AND FUNCTIONS BY ASTROGLIAL CALCINEURIN**

Dmitry Lim, Laura Tapella, M. Manfredi, T. Soda, L. Mapelli, A. Stevano, L. Ponzoni, E. Conte, S. Ummarino, V. Bortolotto, F. Rocchio, M. Grill, M. Sala, A. Di Ruscio, E. Marengo, F. Moccia, E. D'Angelo, A.A. Genazzani

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**Poster N° 32****NEURONAL ACTIVITY-INDUCED ACTIVATION OF CALCINEURIN IN ASTROCYTES**

Dmitry Lim, Francesco Moccia, Lisa Mapelli and Armando A. Genazzani

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**Poster N° 33****HISTAMINE ACTIVATES A CA<sup>2+</sup> SIGNAL IN NORMAL FETAL LUNG FIBROBLASTS**

Berra-Romani Roberto, Hernández Arrambide Pedro Efraín, Vargaz Guadarrama Verónica Ajelet, José Everardo Avelino Cruz, Josué Ernesto Sánchez Gómez, Francesco Moccia

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**Poster N° 34**

**A PORTABLE, LOW COST AEQUORINOMETER BASED ON SILICON PHOTOMULTIPLIERS**

**Luca Nardo**, Samuela Lomazzi, Romualdo Santoro, Alexander Martimiyarov, Federico A. Ruffinatti, Marianna Dionisi, Carla Distasi, Dmitry Lim, Massimo Caccia

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**Poster N° 35**

**THE HUMAN AMNIOTIC FLUID STEM CELL SECRETOME TRIGGERS PRO-ANGIOGENIC INTRACELLULAR CA<sup>2+</sup> OSCILLATIONS IN HUMAN ENDOTHELIAL COLONY FORMING CELLS**

**Valentina Balducci**, Pawan Faris, Carolina Balbi, Ambra Costa, Francesca Campagnoli, Roberto Berra-Romani, Sveva Bollini, Vittorio Rosti, Francesco Moccia

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**Poster N° 36**

**ALTERED FIRING AND CAV1.2 CHANNEL INACTIVATION OF HIPPOCAMPAL NEURONS AND ADRENAL CHROMAFFIN CELLS IN THE TIMOTHY SYNDROME TYPE 2 (TS2-NEO) AUTISTIC MOUSE MODEL: RESCUING EFFECTS BY DHP ANTAGONISTS**

**Chiara Calorio**, Daniela Gavello, Monica Bonardi, Chiara Salio, Marco Sassoè-Pognetto, Chiara Riganti, Federico Tommaso Bianchi, Paola Defilippi, Fiorella Balzac, Emilia Turco, Randy Rasmusson, Emilio Carbone

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**Poster N° 37**

**GENE EXPRESSION, PROTEOME AND CALCIUM SIGNALLING ALTERATIONS IN IMMORTALIZED HIPPOCAMPAL ASTROCYTES FROM AN ALZHEIMER’S DISEASE MOUSE MODEL.**

**Laura Tapella**, Francesca Rocchio, Marcello Manfredi, Mariangela Chisari, Francesca Ronco, Federico Alessandro Ruffinatti, Eleonora Conte, Pier Luigi Canonico, Maria Angela Sortino, Mariagrazia Grilli, Emilio Marengo, Armando A Genazzani and Dmitry Lim

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