



# 4<sup>th</sup> ANNUAL RETREAT IRP

**Galzignano Terme | APRIL 11-12-13, 2024**

*Hotel Majestic - Galzignano Resort Terme & Golf  
Viale delle Terme, 84 - 35030 Galzignano Terme PD*

## THURSDAY 11<sup>th</sup> APRIL

**14:00 Arrivals & Room check-in**

**14:20 OPENING SESSION**

**14:30 – 16:00 ORAL SESSION 1 - Chair: Prof. Elisa Cimetta**

- *Extracellular matrix guides human neuromuscular organoid morphogenesis* (Beatrice Auletta, Urciuolo Lab)
- *3D manufacturing of decellularized extracellular matrix patches for skeletal muscle defects* (Elena Merotto, Piccoli Lab)
- *Integrated Microfluidic Blood Brain Barrier Chip and 3D Glioblastoma Spheroids for systemic delivery of Oncolytic HSV-1 via autologous Monocytes* (Sara Micheli, Cimetta Lab)
- *The mitochondrial chaperone TRAP1: a bridge between metabolic rewiring and epigenetic remodeling in DLBCL* (Lavinia Ferrone, Mussolin Lab)
- *A single cell multiomic approach to dissect immunophenotypic plasticity on BCP-ALL pediatric patients* (Giulia Gomiero, Buldini Lab)
- *When Time is Brain: A Multi-omic Approach for Rapid Diagnosis and Prognostic Characterization of Hypoxic-Ischemic Encephalopathy* (Enrico Valerio, Giordano Lab)

**16:15 – 16:35 Euroimmun – Dr. Piero Novel**

*UFO Project: the discover of unknown fluorescence objects*

**16:40 – 18:00 PRESENTAZIONE FACILITIES**

*3D Printing* (Martina Piccoli) – *Microscopy* (Fabio Munari) – *Flow Cytometry* (Chiara Frasson) – *Zebrafish & Mouse Facility* (Giuseppe Germano) – *Luminex* (Alice Zaramella) – *Bioinformatic* (Carlo Zanon)

**18:00 – 19:50 POSTER SESSION 1**

**20:00 DINNER**

**21:00 ENTERTAINMENT NIGHT – DJ SET**

## **FRIDAY 12<sup>th</sup> APRIL**

### **9:00 – 10:00 ORAL SESSION 2 - Chair: Dr. Rosella Tomanin**

- *Immunoreactivity against fibroblast growth factor 8 (FGF8) in Alveolar Rhabdomyosarcoma patients and its involvement in aggressiveness and resistance phenomena* (Sara Provesi, Bisogno Lab)
- *Tissue expression of angiotensin type 1 receptor, endothelin type A receptor and two adhesion molecules of their downstream signaling, in protocol biopsies of pediatric kidney transplant patients* (Benedetta Antonello, Benetti Lab)
- *Influence of preoperative pulmonary blood flow and cardiopulmonary bypass on lung inflammation in infants with congenital heart disease* (Anna Sartori, Cogo Lab)
- *RAGE engagement by SARS-CoV-2 enables monocyte infection and underlies COVID-19 severity* (Roberta Angioni, Viola Lab)

### **10:10 – 10:30 Autifony - Dr. Nadia Pilati**

*From Concept to Reality: The Journey of Scientific Ideas into Practical Applications*

### **10:35 – 10:50 COFFEE BREAK**

### **11:00 – 12:20 ORAL SESSION 3 - Chair: Prof. Paola Cogo**

- *LIN28B oncogene establishes a pre-metastatic niche for neuroblastoma dissemination* (Sara Menegazzo, Aveic Lab)
- *Targeting NFATc1/c2 as a novel therapeutic strategy to overcome glucocorticoid resistance in T-ALL pediatric patients* (Giulia Veltri, Serafin Lab)
- *Characterization of a patient-derived hydrogel for colorectal cancer modeling: enhancing personalized medicine through tumor microenvironment mimicry* (Asia Marangio, Agostini Lab)
- *Targeting Nrf2-Regulated Antioxidant Systems to Enhance Chemotherapy Response and Ferroptosis Induction in Chemotolerant Medulloblastoma Cells* (Lorenzo Manfreda, Viola Giampietro Lab)
- *Development of a Hematopoietic Stem Cell Gene Therapy for Infantile GM1-Gangliosidosis* (Linda Bucciarelli, Poletti Lab)

### **13:00 LIGHT LUNCH**

### **14:30 – 15:15 ORAL SESSION 4 - Chair: Prof. Giampietro Viola**

- *Modeling a Novel Ciliopathy in C.elegans* (Elena Tacchetto, Trevisson Lab)
- *Hematopoietic stem cell gene therapy as a novel treatment approach for frontotemporal dementia (FTD)* (Yuri Ciervo, Biffi Lab)
- *Impact of Perinatal Stroke on Motor and Cognitive Functions in a Mouse Model* (Gianmarco Cuboni, Allegra Lab)

### **15:30 – 19:30 LEISURE TIME & TEAM BUILDING**

### **20:00 DINNER**

### **21:00 POSTER SESSION 2**



## **SATURDAY 13<sup>th</sup> APRIL**

### **9:00 – 10:15 ORAL SESSION 5 - Chair: Dr. Luca Persano**

- *Preclinical efficacy study on mesenchymal stromal cell-derived extracellular vesicles in preventing oxidative stress and fibrosis and preserving pulmonary epithelial function in models of bronchopulmonary dysplasia* (Paola Bisaccia, Pozzobon Lab)
- *Exploring novel characteristics of leukemia stem cells: insights into mitochondrial dependence* (Maddalena Benetton, Pigazzi Lab)
- *COQ10A and COQ10B genes: are they involved in primary Q10 deficiencies?* (Elisa Baschiera, Salviati Lab)
- *Multi-omics profiling to dissect cell heterogeneity and unveil JMML disease pathogenesis* (Alberto Peloso, Bresolin Lab)
- *Pharmacological reduction of oxidative stress counteracts cardiac dysfunction in a murine model of dystrophic cardiomyopathy* (Irene Cattapan, Di Salvo Lab)

### **10:20 – 11:00 LECTIO MAGISTRALIS – Prof. Graziano Martello**

Professor of Molecular Biology, Armenise - Harvard Pluripotential Stem cell laboratory, Dept. of Biology University of Padua

*Dissecting neurodegeneration with pluripotent stem cells: new therapeutic approaches (and career paths!)*

### **11:10 – 11:30 COFFEE BREAK**

### **11:30 – 12:00 AWARDS CEREMONY & CLOSING REMARKS**

## **THANKS TO**

EUROIMMUN – AUTIFONY – AL.MA.SA. termoclima

CliniSciences S.r.l. – VODEN Medical Instruments S.p.A. - C.S.C. spa

## POSTER SESSION 1

1. *Characterization of a novel 3D bone marrow metastatic neuroblastoma model* (Diana Corallo, Aveic Lab)
2. *Enrichment of miR-378a-3p in Plasma Small Extracellular Vesicles as a Potential Biomarker in Pediatric BL Patients* (Domenico Rizzato, Mussolin Lab)
3. *Human neuromuscular organoids for studying cancer cachexia* (Pietro Chiolerio, Urciuolo Lab)
4. *Novel treatments for primary coenzyme Q10 deficiency* (Giulia Toffanin, Trevisson Lab)
5. *Efficacy of Extracellular Vesicles on in vitro and in vivo models of intestinal inflammation to study Inflammatory Bowel Diseases* (Alice Zaramella, Pozzobon Lab)
6. *Patient-derived extracellular matrix from decellularized high-grade serous carcinoma tissues as a biocompatible support for organoids growth* (Francesca Sensi, Agostini Lab)
7. *First worldwide review and classification of IDS gene variants* (Rosella Tomanin, Tomanin Lab)
8. *Identification of molecular and functional biomarkers in Fragile X Disorders: improving knowledge about basic molecular mechanisms and measurable outcomes for clinical follow up and evaluation of new treatments* (Elisa Bettella, Murgia Lab)
9. *The emerging role of hypoxic extracellular vesicles-mediated mitochondrial metabolic reprogramming in neuroblastoma microenvironment* (Pina Fusco, Cimetta Lab)
10. *The impact of bone marrow microenvironment in supporting pediatric acute myeloid leukemia* (Sara Perpinello e Giorgia Longo, Pigazzi Lab)
11. *Preliminary analysis and comparison of synovial fluid leucocyte abnormalities and cytokine profile in juvenile idiopathic arthritis subtypes* (Anna Scanu, Pozzobon Lab)
12. *Functional and structural characterization of human COQ4 missense variants* (Marco Marchi e Cristina Calderan, Salviati Lab)
13. *Untangling the role of ER stress and membrane lipid imbalance in fine particulate matter exposure* (Ambra Bertocco, Cogo Lab)
14. *Striking Brain Tumor Metabolic Vulnerabilities through identification of Synthetic Lethal pairs* (Martina Canton, Viola Giampietro Lab)
15. *Oxidative stress by the mitochondrial monoamine oxidase B mediates calcium pyrophosphate crystal-induced arthritis* (Francisca Carolina Venegas Celedon, Canton Lab)
16. *The ERTA-Ab Study: anti-endothelin-1 receptor Type A antibodies in pediatric renal transplantation* (Marta Vadori, Cozzi Lab)
17. *The role of microglial extracellular vesicles in vascular remodeling after stroke* (Livia Vignozzi, Allegra Lab)

## POSTER SESSION 2

18. *Cytokine mediated crosstalk in ALK+ ALCL and tumour associated macrophages* (Rebekka Salzmann, Mussolin Lab)
19. *Micropatterned scaffolds guide the cell self-assembly of human neuromuscular organoids* (Giada Cecconi, Urciuolo Lab)
20. *Treatment of fistulas with umbilical cord-derived mesenchymal stromal cells and hyaluronic acid: in vitro validation and pilot study in paediatric patients* (Matilde Anna Corbetta, Piccoli Lab)
21. *C16ORF70, A Novel Gene that Regulates Aging in C. elegans* (Valeria Morbidoni, Trevisson Lab)
22. *Lung organoid as model of Bronchopulmonary dysplasia* (Rachel Moll Diaz, Pozzobon Lab)
23. *Identification of Neurotrophins signaling as a relevant therapeutic target in chemotherapy-resistant medulloblastoma cells* (Luca Persano, Persano Lab)
24. *Mosaicism in Fragile X Conditons* (Roberta Polli, Murgia Lab)
25. *Metastasis-on-a-chip: investigating the impact of hypoxic extracellular vesicles in neuroblastoma metastatic dissemination to the bone marrow* (Anna Fietta, Cimetta Lab)
26. *Exploring macrophage mitochondrial (dys)function in tissue-specific and systemic aging* (Annachiara Marin, Molon Lab)
27. *Cracking the bioelectrical code of leukemic MSCs to reroute bone marrow microenvironment* (Ambra Da Ros, Pigazzi Lab)
28. *Emerging perspectives on biomarkers for kidney transplant rejection in pediatrics: a comparative analysis of tissue, plasma and urine microRNAs versus protocol biopsy histology* (Susanna Negrisolo, Negrisolo Lab)
29. *Redundant and divergent roles of COQ8A and COQ8B in cell metabolism* (Agata Valentino, Salviati Lab)
30. *Urinary medium-chain dicarboxylic acid concentrations in small preterm infants on parenteral nutrition with and without cholestasis* (Alessio Correani, Cogo Lab)
31. *Plasma S-Evs miRNAs in Pediatric B Lineage Leukemia: Transforming Factors of Bone Marrow Niche* (Alice Cani, Bresolin Lab)
32. *Targeted gene addition in HSPCs enable the development of a gene therapy approach for neurometabolic diseases* (Annita Montepeloso e Giulia Santinon, Biffi Lab)
33. *The role of microglia in the neuroinflammatory response following perinatal stroke* (Emanuela Beretta, Allegra Lab)
34. *Harnessing Mesenchymal Stromal Cell-Derived Extracellular Vesicles as Antiangiogenic Therapy for Ewing Sarcoma: Insights from Xenograft Model* (Alessandra Testa, Viola - Angioni Lab)