

Scientific Programme

3rd September 2024

09:00 WELCOME ADDRESS: Elena Adinolfi

SESSION 1: Chair Beata Sperlagh

09:15 Katrin Richter Modulation of P2RX4 activity affects the expression and release of pro- and anti-inflammatory cytokines by mononuclear phagocytes

09:35 Maria Grigoroiu-Serbanescu Purinergic and neuroinflammatory genes involved in lithium treatment response in bipolar disorder

09:55 Riekje Winzer The ATP receptor P2X7 mediates cell death in effector-prone human unconventional and tissue-resident T lymphocytes

10:07 Mohammed Elmallah Exosomes derived from breast cancer MDA-MB-231 cell line express the purinergic receptor P2X4 and induce immunotolerant monocytes-derived dendritic cells by decreasing the surface expression of HLA-DR and glycogen content

10:19 Danijela Laketa Purinergic signaling in the auditory brainstem during postnatal development of mice exposed to antenatal dexamethasone treatment

10:31 COFFEE BREAK

SESSION 2: Chair Dariusz Gorecki

10:46 Paulo Correia-de Sá Circulating miR-22 as a biomarker of hippocampal P2X7 overexpression and drug-refractoriness in patients with mesial temporal lobe epilepsy (MTLE)

11:06 Lin-Hua Jiang ATP release and P2 receptor activation as an emerging mechanism for mechanosensitive Piezo1 channel regulation of cell functions

11:26 Natalia Martinez Gil Study of P2X7R and P2X4R Expression in a New Murine Model of Central Areolar Choroidal Dystrophy

11:38 Alejandro Sánchez Melgar Mitochondrial localization of adenosine receptors modulates energy metabolism

11:50 Felipe Ortega Study of the ionotropic purinergic receptors during human cortical development using a brain organoid model

12:02 Maja Milosevic The role of extracellular ATP in chronic stress and cancer

12:14 Davide Mangani *Pancreatic cancer resistance to immune checkpoint blockade is rescued by depletion of extracellular ATP in an orthotopic murine model*

12:26 Milorad Dragic *Purinergic system modulates hippocampal synaptic activity following repetitive transcranial magnetic stimulation*

12:38 LUNCH

13:40 Robson Coutinho-Silva *PLENARY LECTURE - Purinergic Signalling in intracellular pathogens infection: The role of P2X7 receptors*

SESSION 3: Chair Peter Illes

14:20 Ana M Sebastião *Purinergic control of synaptic activity under hyperexcitable pathological conditions*

14:40 Eric Boué-Grabot *P2X4 receptors in ALS and its potential use as a biomarker for diagnostic*

15:00 Ginevra Zanni *Description of a patient with autism, neurodevelopmental delay, absent serum IgA, and enrichment of Lactobacilli in gut microbiota, associated with rare biallelic variants of P2X7R*

15:12 Marija Adzic Bukvić *Effects of repetitive magnetic stimulation on purinergic signaling system in activated spinal cord mixed glial cells*

15:24 COFFEE BREAK

SESSION 4: Chair Valérie Vouret-Craviari

15:44 Leanne Stokes *New approaches for accelerating ligand development for P2X receptors*

16:04 Gennady Yegutkin *Role of ATP metabolism in neurovascular coupling and retinal function in the mammalian eye*

16:24 Rafael Franco *Olfactory receptors, the unsuspected partners of adenosine receptors*

16:44 Claudiana Lameu *The role of P2X7 and P2Y2 receptors in mediating breast-to-brain metastatic transition and phenotypic plasticity*

17:04 Carlo Marobbio *Restoring heme levels in cellular models of congenital sideroblastic anemia: the role of pyridoxal-5'-phosphate*

17:16 Ankita Agrawal *Update on dissemination*

17:31 1° Round Table, Chairs Robson Coutinho-Silva, Henning Ulrich and Claudiana Lameu - Possible collaboration of the PRESTO COST network with Brazil

4th September 2024

SESSION 5: Chair Pablo Pelegrin

- 09:00 Ivana Novak** *Role of P2X7 receptor in pancreatic cancer – from cellular function to risk association studies*
- 09:20 Ning Wang** *P2X4 and prostate cancer*
- 09:40 Katarzyna Roszek** *Targeting ATP-mediated signaling in the tumor microenvironment as a supportive therapeutic approach*
- 10:00 Thomas Duret** *New advance on the role of the ionotropic receptor P2X4 in the release of extracellular vesicles (EVs) release from mammary cancer cells and consequences on aggressiveness*

10:12 COFFEE BREAK

SESSION 6: Chair Silvana Morello

- 10:32 Maria Chiara Zuccarini** *Purinergic Signaling in Breast Cancer: crosstalk between de novo and salvage nucleotide biosynthetic pathways*
- 10:44 Bojan Bondzi** *Synthesis of novel bioactive molecules using visible light promoted photoredox chemistry in microflow conditions*
- 10:56 2^o Round Table, Chairs Christa Müller and Steven Mansoor** - *Recent advancements in P2X antagonists*
- 11:35 Elena De Marchi** *COST rules for reimbursement*
- 12:00 HINGE PLENARY SESSION Henning Ulrich** - *Purinergic receptors: from neurogenesis to neurodegeneration*