

Satellite Symposium on Structure and Function of mGlu Receptors

Monday - September 30, 2024 Afternoon session

4.00 pm Welcome

Satellite Symposium on Structure and Function of mGlu Receptors

Chair: Jean Philippe Pin (France); Masanobu Kano (Japan)

Heterodimeric mGluRs: Yes, but for what? Jean Philippe Pin (France)

The molecular logic of metabotropic glutamate receptor heterodimers Jonathan Javitch (USA)

mGlu Photopharmacology Amadeu Llebaria (Spain)

Regulation of group III mGlu Receptors by extracellular interactions Kirill Martemyanov (USA)

New resource for cell- and state-specific in vivo capture of mGluR5-associated protein complexes: *Grm5*-BaCflip transgenic mice Nicole Calakos (USA)

Nanobodies binding to mGlu receptors Francine Acher (France)

Unique pharmacology of mGluR dimers Paul J. Kammermeier (USA)

Interfaces between the nervous system and cancer Suzie Chen (USA)

1

Tuesday - October 1, 2024 Morning session

11th International Meeting on Metabotropic Glutamate Receptors:

From the bench to the clinic

Neurodevelopment and developmental disorders

Chair: Maria Vincenza Catania (Italy)

Role of mGlu7 in neurodevelopmental disorders Colleen Niswender (USA)

DYSREGULATED NEURONAL PATHWAYS IN CDKL5-DEFICIENCY DISORDER CONVERGE ON mGlu5 RECEPTORS Maurizio Giustetto (Italy)

Behavioral and molecular phenotypes of a non-human primate model for fragile X syndrome Atzu Aiba (Japan)

Roles of mGluR1 in activity-dependent synapse elimination during postnatal development Masanobu Kano (Japan)

Coffee break

Autoimmune disorders, multiple sclerosis, NMOSD

Chair: Giuseppe Battaglia (Italy)

Role of glutamate and glutamate receptors in the inflammatory synaptopathy of MS

Diego Centonze (Italy)

Pathophysiology and novel molecular targets of NMOSD

Claudio Gasperini (Italy)

Antibodies against metabotropic Glutamate receptor in neurological disorders

Matteo Gastaldi (Italy)

In vitro and in vivo effects of encephalitis patient-derived mGluR autoantibodies

Jakob Kreye (Germany)

Unlocking the role of cellular prion protein involvement in multiple sclerosis: is there a role for metabotropic glutamate receptors?

Francesca Fallarino (Italy)

Lunch break

Tuesday - October 1, 2024 Afternoon session

Parkinson's disease and other neurodegenerative disorders

Chair: Angela Cenci (Sweden) - Yoland Smith (USA)

Parkinson's disease a look to the future

Fabrizio Stocchi (Italy)

Glutamatergic neurotransmission in Parkinson's disease and its role in the control of motor and non-motor symptoms

Javier Pagonabarraga (Spain)

mGlu3 receptors and Parkinson's disease

Giuseppe Battaglia (Italy)

Metabotropic glutamate receptors in mouse and monkey models of Parkinson's disease: neuroprotection, antiparkinsonian and anti-dyskinetic activities

Therese Di Paolo Chenevert (Canada)

Renewed interest in mGlu4 as a target for the treatment of Parkinson's disease: development of a novel, potent, and selective mGlu4 PAM (AP-472)

Annie Blobaum (USA) - Brian Laden (USA)

Evening Poster session

Wednesday- October 2, 2024 Morning session

Disorders of negative affect (depression, anxiety, stress-related disorders)

Chair: Francesco Ferraguti (Austria) - Stefania Maccari (France)

The Complexity and Heterogeneity of Depressive Syndrome and the Difficulty of Testing the Efficacy of Specific Medications for Specific Subtypes Andrea Fagiolini (Italy)

The antidepressant activity of hallucinogenic substances is enhanced by group II mGlu receptor antagonists Andrzej Pilc (Poland)

Neural mechanisms of anxiolysis of mGlu5 receptor antagonists Francesco Ferraguti (Austria)

Potential of mGlu2/3 receptor antagonists as ketamine-like antidepressant Shigeyuki Chaki (Japan)

Coffee break

Interplay between the mGluR2 signalling and ketamine's rapid antidepressant actions: Exploring the possible role of NMDAR activation Panos Zanos (Cyprus)

Exploring the role for cinnabarinic acid in anhedonia Francesco Fazio (USA)

Synaptic Mechanisms Underlying Social Threat Avoidance Camilla Bellone (Switzerland)

Psychotic disorders

Chair: Jeffry Conn (USA) – Francesco Matrisciano (USA)

Schizophrenia: Pathophysiology and Novel Mechanism Action Treatments Christoph U Correll (Germany/USA)

Therapeutic potential of mGlu3 for the treatment of schizophrenia Shalini Dogra (USA)

Potential role for mGlu2/3 receptors in treatment-resistant schizophrenia Francesco Matrisciano (USA)

Lunch break

Wednesday - October 2, 2024 Afternoon session

Drug addiction

Chair: Joel Bockaert (France) – Sergio De Filippis (Italy)

Mechanisms of mGlu1 regulation of cortical inhibition and cognitive function: Implications in adolescent cocaine exposure Deborah Luessen (USA)

The Dorsal Raphe→Central Amygdala glutamatergic pathway is critical to methamphetamine relapse after contingency management Daniele Caprioli (Italy)

Parvalbumin interneuron mGlu5 receptors govern sex differences in prefrontal cortical physiology and binge drinking Max Joffe (USA)

The endocannabinoid system in cocaine dependence and their relation to mGluR5 density in the human brain Sara Liane Kroll (Switzerland)

Cortical mGlu2/3 receptors and methamphetamine-induced behavioral deficits Marek Schwendt (USA)

Role of accumbens medium spiny neurons subtypes in reinstatement to ketamine cues Mohamed Kabbaj (USA)

Metamodulation of mGluRs: the role of serotonin Anna Pittaluga (Italy)

Thursday- October 3, 2024 Morning session

Chronic pain

Chair: Tom Salt (UK)

Smriti Iyengar (USA) TBD

Robert Gereau (USA) TBD

Pain neuromodulation by the metabotropic glutamate receptor mGlu4: from the periphery to the brain Cyril Goudet (France)

mGlu and neuroimmune signaling in the amygdala in pain modulation Volker Neugebauer (USA)

Coffee break

Neuroinflammation and central sensitization in acute and chronic pain: from the bench to the clinical practice Salvatore Cuzzocrea (Italy)

mGluRs in cortical synaptic plasticity or mGluRs in pain/emotion Min Zhuo (Canada)

Lunch break

Thursday - October 3, 2024 Afternoon session

Stroke and excitotoxicity

Chair: Agata Copani (Italy), Valeria Bruno (Italy)

Inhibition of mGluR5 restores lost sensorimotor function after stroke – from bench to bedside Tadeusz Wieloch (Sweden)

Inhibition of mGluR5 restores brain functional connectivity after stroke in mice Adam Bauer (USA)

Cannabinoids and cannabinoid receptors in models of stroke Domenico Pellegrini Giampietro (Italy)

Epilepsy

TBD Robert Lutjens (Switzerland)

Decoding early-onset epilepsy and targeted disease management: the importance of genetic testing Pasquale Striano (Italy)