

32nd Ion Channel Meeting September 17th through 20th 2023, Sète, France

Sunday, September 17th 2023

16:00 – 19:00 Welcome of the meeting attendees

19:00 Welcome drink and Dinner

21:00 Plenary lecture

Emilio Carbone (Torino, Italy)

Highlights on common gating changes in Cav1.2 and Cav1.3 channelopathies causing autism

Monday, September 18th 2023

08:30 Opening session

08:45 Symposium 1: "Ion channels as Therapeutic Targets in Motor Diseases"

Organized by Ines El Bini (Tunis, Tunisia)

Riadh Gouider (Tunis, Tunisia)

Paramyotonia congenita: from bench to bedside

Hilal Lashuel (Lausanne, Switzerland)

A spark of hope: targeting potassium channels in parkinson's disease

Eric Boué-Grabot (Bordeaux, France)

Trafficking and function of ATP P2X4 receptors in Amyotrophic Lateral Sclerosis

Selected speaker: Ophélie Molton (Lausanne, Suisse)

Determination of the Ca²⁺ binding sites of acid-sensing ion channel 1a (asic1a)

10:30 Coffee break

11:00 Oral communication session 1: "Opening the Ca2+ Floodgate"

Organized by Fabien Brette (Montpellier, France)

Caterina Azzoni (Montpellier, France)

Control of the fight-or-flight response of heart rate and sino-atrial node automaticity by L-type Cav1.3 (α 1D) channels

Lea Rethore (Angers, France)

KB-R7943, a sodium/calcium exchanger (NCX) inhibitor, also targets voltage-gated sodium channels in GH3b6 cells

Federico Bertagna (Guildford, UK)

Effects of pharmacological ryanodine receptor modulation on voltage-gated ionic currents in murine hippocampal cornu ammonis-1 pyramidal neurons

Mahira Kaabeche (Montpellier, France)

Electrical properties and intracellular calcium signaling in cardiomyocytes from the honey bee heart

12:00 One-minute oral presentation for posters

12:30 Lunch

14:00 Poster session

15:45 Coffee break

16:15 Sponsors presentations

16:30 Symposium 2: "Hypoxia and ion channels"

Organized by **Alban Girault** (Amiens, France)

Luigi Catacuzzeno (Perugia, Italy)

Role of ion channels in the hypoxia-induced aggressiveness of glioblastoma

Khilian Pascarel (Poitiers, France)

Impact of hypoxia on ion channels in the context of cystic fibrosis

Bastien Masson (Le Plessis-Robinson, France)

Involvement of ORAI1 Ca²⁺ channel in the pathogenesis of pulmonary arterial hypertension

Selected speaker: Anaïs Saint-Martin Willer (Le Plessis-Robinson, France)

Role of CRACR₂A in the development of pulmonary arterial hypertension

18:15-18:30 Sponsors presentations

19:30 Apéritif dinatoire Sétois

Tuesday, September 19th 2023

08:30 Symposium 3: "Role of ion channels in stem/progenitor cells"

Organized by Valérie Coronas (Poitiers, France)

Francesco Moccia (Pavia, Italy)

Geneless optical stimulation generates pro-angiogenic Ca²⁺ signals in endothelial colony forming cells.

Lin-Hua Jiang (Xinxiang, China; Leeds, UK)

Distinctive calcium channels integrate a signalling network to regulate mesenchymal stem cell function.

Loïc Lemonnier (Lille, France)

Role of store-operated calcium channels in cancer stem cells.

Selected speaker: Arnaud Delafenetre (Poitiers, France)

Functional characterization of muscle cells derived from healthy and DMD human induced pluripotent stem cells: focus on calcium regulation

10:15 Coffee break

10:45 Oral communication session 2: "ion channels and cancer"

Organized by Claire Legendre (Angers, France)

Romain Baudat (Gif-sur-yvette, France)

Venom peptides: emergent biological tools for lung cancer imaging

Mélanie Laine (Amiens, France)

Kv10.1 favors EMT and migration in breast cancer aggressiveness

Osbaldo Lopez-Charcas (Mexico, Mexico)

The blocking mechanism of gossypol on t-type calcium channels and its impact on colon cancer cell growth

Dimitra Gkika (Lille, France)

Non genomic regulation of trpm8: from thermosensation to cancer

11:45 Artem Kondratskyi (Lille, France)

Ion channels: global research trends, statistics, collaborations

12:30 Lunch

13:30 Appointment for Social event

17:00 Sponsors presentations

17:15 Symposium 4: "Ion channel and development"

Organized by **Marie Demion** (Montpellier, France)

Lucile Miquerol (Marseille, France)

Morphogenesis of the ventricular Purkinje network: linking architecture and function

Adèle Faucherre (Montpellier, France)

Piezo1 in heart development and function

Olga Andrini (Lyon, France)

TRK-1 sur Caenorhabditis elegans / mutations gain of function

Selected speaker: Eleonora Torre (Montpellier, France)

Validation of differentiated sinoatrial-like hiPSCs as a model of native sinus node myocytes

19:00 Annual meeting of the Association

20:00 Dinner

21:30 Evening Conference and Party

Caroline Strube (CNRS Research Integrity Office)

Scientific fraud: a long history... with potentially disastrous consequences.

Wednesday, September 20th 2023

09:30 Symposium 5: "Ionic channels in non excitable cells"

Organized by Isabelle Rubera (Nice, France)

Gilles Crambert (Paris, France)

ASIC₂ variant, a novel molecular entity involved in renal Na retention during idiopathic nephrotic syndrome

Laurent Beck (Nantes, France)

Uptake and efflux of phosphate in non-excitable cells: transporters, sensors and homeostatic regulation

Isabelle Callebaut (Paris, France)

Molecular basis of function/dysfunction/modulation of the anion channel CFTR

Selected speaker: Mete Kayatekin (Nice, France)

Activation of the LRRC8/VRAC anion channels in macrophages play a central role in microcrystal-mediated il-1β release

11:15 Coffee break

11:40 Prizes and Meeting closure

12:00 Lunch

14:00 Airport shuttle departure

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