

29th Ion Channel Meeting

September 9th through 12th, Sète, France

Sunday, September 9th 2018

16:00 – 20:00 Welcome of the meeting attendees

20:00 *Welcome drink and Dinner*

— . — . — . —
Monday, September 10th 2018

8:30 Opening session

08:45 Symposium 1: Role of ion channels in cytoskeleton dynamic and cell migration

Organized by Bruno Constantin (Laboratoire STIM, University of Poitiers, France)

Francisco Javier Martin-Romero (Badajoz, Spain): Regulation of cortical cytoskeleton dynamics and cell migration by STIM1 and ORAI1.

Alessandra Fiorio Pla (Milano, Italy) TRPM8 inhibits cell adhesion and migration by trapping the small GTPase RAP1: Common target for cancer cell invasion and vascularization

Lise RODAT-DESPOIX (Amiens, France) IP3R3 in breast cancer cells: Turning calcium oscillations into migratory skills.

Selected speaker: Frederic Gradek (Tours, France) Nav1.5 Voltage-gated sodium channels enhance mesenchymal breast cancer cells invasiveness.

10:30 *Coffee break*

11:00 Oral communication session1: « Ion channels and pathophysiology»

Organized by Thierry Chataigneau (Laboratoire CAMB, University of Strasbourg, France)

Alexandru Babes (Bucharest, Romania): TRPA1 and TRPV1 channels are involved in 7-dehydrocholesterol-induced photosensitization in the Smith-Lemli-Optiz syndrome.

Kjara Sophia Pilch (Bordeaux, France): Novel transgenic P2X4MCHERRYIN KNOCKIN mice expressing non-internalized P2X4 receptors reveal alterations in hippocampal plasticity and memory.

Philippe Lory (Montpellier, France): De novo mutation screening in Childhood Cerebellar Atrophy (ChCA) identifies gain of function mutations in the Cav3.1 T-type calcium channel.

Osbaldo Lopez-Charcas (Tours, France): The invasiveness of human cervical cancer associated to the function of Nav1.6 channels is mediated by MMP-2 activity 1.

12:15 1-minute oral presentation for odd number posters

12:45 Lunch

15:00 Poster session 1

17:00 Symposium 2: Physiopathology of cardiac pacemaker activity and biological pacemakers

Organized by Matteo Mangoni (IGF, University of Montpellier, France)

Ana M Gomez (Chatenay, France): Calcium handling in Pacemaker cells from catecholaminergic polymorphic ventricular tachycardia mice models.

Mark Boyett (Manchester, UK): Plasticity of ion channel expression in the sinus node.

IRA Cohen (Stony Brook, USA): How to build a biological pacemaker?

Selected speaker: Adrien Moreau (Lyon, France): Arrhythmogenic cardiomyopathy in a dish based on patient specific induced pluripotent cell.

18:45 Plenary lecture

Denis Noble (Oxford, GB)

“FROM PACING THE HEART TO THE PACE OF EVOLUTION”

20:00 Dinner

— . — . — . — . —
Tuesday, September 11th 2018

08:45 Symposium 3: Toxins and natural tools: towards their uses in Public Health

Organized by Sylvie Diochot (IPMC, University of Nice-Sophia Antipolis, France)

Lachlan D. Rash (Brisbane, Australia): The structure function relationships of closed state acid-sensing ion channel inhibitors.

Tânia C. Gonçalves (Saclay, France): Antinociceptive evaluation of cyriotoxin-1a and huwentoxin-IV, two spider toxins that block with high affinity the Nav1.7 subtype of voltage-gated sodium channels.

Steve Peigneur (Leuven, Belgium): Marine organisms as a rich source for novel modulators of the Cancer-Relevant Potassium Channel KV10.1.

Selected speaker: Antony Chung You Chong (Montpellier, France): Inhibition of K_{ACh} channels by the bee venom peptide tertiapin-Q rescues cardiac conduction and sino-atrial bradycardia in models of congenital bradycardia.

10:30 Coffee break

11:00 Oral communication session 2: "Role of ionic channels in cerebral physiology and pathology"

Organized by Nathalie Rouach (Collège de France, Paris-France)

Cheng-Chang Lien (Taipei, Taiwan): Connectivity and function of a longitudinal hippocampal circuitry.

Chung-Jiuan Jeng (Taipei, Taiwan): Proteostatic mechanism of Eag1 potassium channel.

Domiziana Ortolani (Paris, France): An In Vivo Optogenetic Approach to Study Neuron-Oligodendroglia Interactions in Mouse Pups.

Claire Soulard (Montpellier, France): Regulation of motor capacity by TMEM16F, a chloride channel expressed in motoneurons. What impact for ALS?

12:15 Sponsor Communication: Cambridge Electronic Design, Ltd

12:30 1-minute oral presentation for even number posters

13:00 Lunch

15:00 Poster session 2

17:00 Symposium 4: Regulation of ion channels by steroids and lipids

Organized by Dimitra Gkika (Laboratoire PhyCell, University of Lille, France)

Marie Potier-Cartereau (Tours, France): The ether lipid-sensitive SK3 channel in cancer.

Johannes Oberwinkler (Marburg, Germany): Regulation of the steroid-sensitive ion channels TRPM3 and TRPM1.

Isabella Derler (Linz, Austria): Cholesterol modulates Orai1 channel function.

Selected speaker: Fanny Salmeron (Montpellier, France): Do DHA open TREK-1 channels or is it NEO-PUFAs?

18:45 Annual meeting of the association « Canaux ioniques »

19:30 Apéritif Sétois and special dinner

21:30 Poster and Oral Communication Prize session

22:00 Evening Party

— . — . — . —
Wednesday, September 12th 2018

09:30 Symposium 5: Regulation of potassium channels in physiology and pathology

Organized by Raphaël Rapetti-Mauss (IBV, University of Nice Sophia Antipolis, France)

Geoffrey W. Abbott (Irvine, USA): Direct neurotransmitter activation of voltage-gated ion channels.

Guillaume Sandoz (Nice, France): Heteromerization of K2P channels: from physiology to physiopathology

Michael Puljung (Oxford, UK): Visualizing nucleotide regulation of the KATP channel.

Selected speaker: Corinna J. Mohr (Tuebingen, Germany): Big conductance calcium-activated potassium (BK) channels in hormone-based development and therapy of breast cancer.

11:15 Coffee break

11: 30 Symposium special: Taiwan Channel and Neuroscience Consortium

Organized by Emmanuel Deval (IPMC, University of Nice-Sophia Antipolis, France) and sponsored by the France-Taiwan ORCHID partnership

Chun-Hsiang Tan (Taipei, Taiwan): The TRPM2 ion channel is required for sensitivity to warmth.

Chih-Cheng Chen (Taipei, Taiwan): Genetic exploration for roles of acid-sensing ion channels in somatosensory system.

Chi-Kuang Yao (Taipei, Taiwan): Flower Ca²⁺ channel elevates phosphatidylinositol 4,5 biphosphate to govern synaptic vesicle recycling via activity-dependent bulk endocytosis.

Shi-Bing Yang (Taipei, Taiwan): Biophysical characterization of the pH-sensing mechanism for TALK1 channel.

13:00 Meeting closure

13:15 Lunch

14:00 Airport shuttle departure

— . — . — . —