30th Ion Channel Meeting

September 8th through 11th 2019, Sète, France

Sunday, September 8th 2019

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

19:00 Welcome drink and Dinner

21:00 Plenary lecture

Anne Feltz (Institute of Biology of Ecole Normale Supérieure, Paris)

"30 years of ion channel history"

Monday, September 9th 2019

08:15 Opening session

08:30 Symposium 1: "Ionic channels and autism"

Organized by Jean-Louis Bossu (Institut des Neurosciences Cellulaires et Intégratives, Université de Strasbourg, France)

Diane Papazian (Los Angeles, USA): Altered gating in mutant Kv4.2 channel associated with autism and epilepsy

Igor Medina (Marseille, France): Causal links between impaired developmental neuronal chloride homeostasis and formation of Autistic Spectrum Disorders

Enrico Cherubini (Roma, Italy): Impairment of GABAergic signalling in Autism Spectrum Disorders

Selected speaker: Eric Hosy (Bordeaux, France): *Nanoscale co-organization and co-activation of AMPAR, NMDAR and mGluR at the synapse*

10:15 Coffee break

10:30 <u>Oral communication session 1</u>: "New insights in ion channels pharmacology"

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

Ines ELBini Dhouib (Tunis, Tunisia): Potential neuroprotective effect of bee venom on aluminum chloride-induced Alzheimer's disease on rats

Zhong Peng (Lausanne, Switzerland): Acid-sensing ion channels of the hypothalamus are regulated by hydrogen sulphide.

Léa Réthoré (Angers, France): BREVENAL PREVENTS CIGUATOXIN AND BREVETOXIN ACTIVATION OF NAV CHANNELS..

Osbaldo Lopez-Charcas (Tours, France): Biophysical characterization of new small-molecule blockers of nNaV1.5 channels expressed in breast cancer cells

11:30 1-minute oral presentation for posters

12	:15	Lunch

14:00 Poster session 1

15:30 Poster session 2

17:00 Symposium 2: "Ion channels and skin functions"

Organized by Aubin Penna (Laboratoire STIM, University of Poitier, France)

Hongzhen HU (St. Louis, USA): "Cutaneous ion channel mechanisms of itch signaling".

V'yacheslav LEHEN'KYI (Lille, France): TRP channels and Skin homeostasis.

Elena OANCEA (Providence, USA): "Intracellular ion channels that regulate skin pigmentation".

Selected speaker: Adélaïde Doray (Tours, France): *The role of the auxiliary* NaV\beta4 subunit in maintaining epithelial phenotype

18:30 Annual meeting of the association « Canaux ioniques »

19:30 Apéritif Sétois

20:30 *Dinner*

Tuesday, September 10th 2019

08:30 **Symposium 3**: Glutamate ligand-gated channels

Organized by Laurent Fagni (IGF, University of Montpellier, France)

Pierre Paoletti (Paris, France): New types of NMDA receptors

Christophe Mulle (Bordeaux, France): Kainate receptors in temporal lobe epilepsy: a translational journey

Ludovic Tricoire (Paris, France): The delta family of glutamate receptors: role in excitatory synaptic transmission

Selected speaker: Perrine Inquimbert (Strasbourg, France): *Plasticity of inhibitory synaptic transmission under the control of NMDA receptors in the dorsal horn of the spinal cord*

10:15 Coffee break

10:30 Symposium 4: Ion channels in cancer therapy resistance

Organized by Lise Rodat-Despoix (LPCM, University of Amiens, France)

Federica Wolf (Roma, Italy): Magnesium-Specific Ion Channels in Chemoresistance: Is There a Role for Magnesium?

Geert Bultynck (Leuven, Belgium): Ca2+-signaling modulation by antiapoptotic Bcl-2 proteins: from molecular mechanisms towards translational avenues

Annarosa Arcangeli (Florence, Italy): Targeting potassium channels to overcome chemoresistance in gastrointestinal cancers

Selected speaker: Charlotte Dubois (Lille, France): Apoptosis mediated by Mitochondrial Ca²⁺ Overload Requires Inhibition of Autophagy Revealing a Widespread Vulnerability of Cancer Cells

12:15 Lunch

14:00 Special social events for 30th anniversary of association « Canaux ioniques »: Boat excursion with Sète Croisières: One hour guided tour of the fishing port, commercial port and marina, followed by a sea excursion along the rocky 'corniche' with underwater viewing. (http://www.sete-croisieres.com/).

19:00 Poster Prize session

19:30 Apéritif and special dinner

22:00 Evening Party

Wednesday, September 11th 2019

09:30 Oral communication session 2

Organized by Dimitra Gkika (Laboratoire de Physiologie Cellulaire, University of Lille, France)

Olivier Bignucolo (Lausanne, Switzerland): BIOMOLECULAR MODELLING OF ACID-SENSING ION CHANNELS

Côme Camus (Bordeaux, France): PHOSPHORYLATION OF PSD95 AS POTENTIAL LINK BETWEEN SYNAPTIC AND STRUCTURAL PLASTICITIES

Mathilde Folacci (Grenoble, France): Design of light-modulated inward rectifying potassium channels

Kerstin K. Viet (Frankfurt am Main, Germany): Structure and Ca2+ interaction of the Extracytosolic/Lumenal Domain (ELD) of the human TRPML2 ion channel

10:30 Coffee break

10:45 **Symposium 5**: "A-typical" Ion channels/currents

Organized by Pietro Mesirca (IGF, University of Montpellier, France)

Rajan Sah (Iowa City, USA): SWELL1/LRRC8a mediated nutrient sensing.

Arnaud Monteil (Montpellier, France): The sodium leak channel: NALCN.

Anna Moroni (Milan, Italy): Engineering synthetic tools for the inhibition of cell excitability.

Selected speaker: Mallory Ducrozet (Lyon, France): *Role of Translocon in calcium exchanges in cell compartments and in cell death, during myocardial infarct*

12:30 Meeting closure

13:15 Lunch

14:00 Airport shuttle departure