

Saturday September 13, 2014

10:00	Registration opens	Arrival and registration
16:00-16:15	Marc Moreau (France)	Welcome from the ECS President

Plenary Lecture

Introduced by Andreas Guse (Germany)

16:15-17:15	Hon Cheung Lee (Hong Kong)	The Cyclic ADP-Ribose/NAADP/CD38-signaling pathway: Past and Present
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17:15 - WELCOME RECEPTION

A guided visit of AIX with English or French guides and at 19h00 reception by the Maire at the Vendome Pavillon with a cocktail

Sunday September 14, 2014

SESSION 1:

Calcium and ER Stress

Chair: Joachim Krebs (Germany)

8:30-9:00	Marek Michalak (Canada)	Keynote Lecture Calcium signaling and coping with the ER stress
9:00-9:20	Feroz Papa (USA)	Small molecule targeting of the Terminal UPR in Diabetes
9:20-9:40	Pico Caroni (Switzerland)	Early disease mechanisms in ALS motoneurons: roles of ER stress and autophagy
9:40-9:55	Hibiki Kawamata (USA)	ER proteins oxidative modifications alters calcium signaling in familial ALS
9:55-10:10	Thomas Simmen (Canada)	Regulation of ER-Mitochondria Calcium Crosstalk by TMX1

10:10-10:40 - COFFEE BREAK

SESSION 2:

Ca²⁺-Binding Proteins in Ca²⁺-Signaling

Chairs: Jim Putney (USA) & Walter Chazin (USA)

10:40-11:10	Mitsuhiro Ikura (Canada)	Keynote Lecture Structural basis for key checkpoints in the Store-Operated Calcium Entry (SOCE) mechanism
11:10-11:30	Michael Overgaard (Denmark)	Cardiac arrhythmia calmodulin mutations and regulation of the RyR ₂ calcium channel
11:30-11:50	Sara Linse-Snogerup (Sweden)	EF-hands as vehicles in biomolecular interaction studies
11:50-12:05	Milena Pejic (Germany)	Ca ²⁺ -dependent membrane organization mediated by annexin A2
12:05-12:20	Marie-Luce Bochaton-Piallat (Suisse)	S100A4 and calmodulin promote smooth muscle cell phenotypic transition. Implications in atherosclerosis

12:20-14:30 - LUNCH AND POSTER

SESSION 3:

Neuronal Calcium Signaling and Optogenetics

Chairs: Jacques Haiech (France)

14:30-15:00	Valentina Emiliani (France)	Keynote Lecture Controlling brain signalling with wave front shaping and optogenetics
15:00-15:20	Pau Gorostiza (Spain)	Optical control of calcium-regulated exocytosis

15:20-15:40	Jana Hartmann (Germany)	STIM1 is required for neuronal Ca ²⁺ signaling and mGluR1-dependent synaptic transmission
15:40-15:55	Robert Blum (Germany)	Continuous calcium influx compensates fast ER calcium loss in resting neurons
15:55-16:10	Khaled Machaca (Qatar)	Dynamic trafficking of the store-operated Ca ²⁺ entry channel Orai1

16:10-16:40 - COFFEE BREAK

SESSION 4:

Ca²⁺-Signaling and Cancer Stem Cells

Chairs: Catherine Leclerc (France) & Marc Moreau (France)

16:40-17:10	Jacques Haiech (France)	Keynote Lecture Calcium signaling in normal and cancer stem cells: different languages for different fates
17:10-17:30	Rodrigo Resende (Brazil)	Spontaneous calcium signaling direct stem cells date to neuronal cells
17:30-17:50	Francesco Moccia (Italy)	Distinct remodelling of the Ca ²⁺ signalling toolkit in endothelial progenitor cells under different neoplastic conditions
17:50-18:05	Francisco Aulestia (France)	Cancer stem cells: Ca ²⁺ influx through store-operated Ca ²⁺ channels
18:05-18:20	Elena Poser (Italy)	Sorcini links cell cycle, calcium levels in endoplasmic reticulum and multi drug resistance in cancer

18:20 - POSTER AND BAR

19:00 - ECS GENERAL ASSEMBLY

Monday September 15, 2014

SESSION 5:

Ca²⁺ in Sensory Cells and Signalling

Chair: Karl-W Koch (Germany)

8:30-9:00	Kathryn Medler (USA)	Keynote Lecture Calcium signaling in taste cells
9:00-9:20	Marc Spehr (Germany)	Calcium signaling in chemical communication
9:20-09:40	Daniele Dell'Orco (Italy)	Molecular aspects of the regulation of Ca ²⁺ /cGMP homeostasis in rod photoreceptor cells in normal and altered conditions
9:40-9:55	Javier Garcia-Sancho (Spain)	GAP, a novel aequorin-based fluorescent ratiometric probe suitable for calcium imaging of intracellular organelles
9:55-10:10	Ming-Dong Zhang (Sweden)	Neuronal calcium binding proteins 1/2 localize to dorsal root ganglia and excitatory spinal neurons

10:10-10:40 - COFFEE BREAK

SESSION 6:

Calcium and Mechanisms of Plasma Membrane Protection

Chairs: Annette Draeger (Switzerland) & Volker Gerke (Germany)

10:40-11:10	Paul McNeil (USA)	Keynote Lecture Calcium and Vitamins: Signaling and Promoting Membrane Repair
11:10-11:30	Alain Brisson (France)	Annexin A5 and membrane repair in the placenta
11:30-11:50	Annette Draeger (Switzerland)	The balance between Ca ²⁺ entry and sequestration defines the efficiency of plasmalemmal repair
11:50-12:05	Katherine Hajjar (USA)	Annexin A2 Modulates Inflammasome Activation in Severe Colitis by Enabling Lysosomal Membrane Repair
12:05-12:20	Bethan Kilpatrick (U.K.)	Defective Calcium Signalling in Parkinson Disease; Clues from a Lysosomal Storage Disorder

12:20-14:30 - LUNCH AND POSTER

SESSION 7:

Calcium in the Nervous System

Chairs: Ula Wojda (Poland) & Jacek Kuznicki (Poland)

14:30-15:00	Robert Burgoyne (UK)	Keynote Lecture Sense and specificity in neuronal calcium signaling
15:00-15:20	Axel Methner	Calcium and Calcium-binding proteins in Huntington's

	(Germany)	disease
15:20-15:40	Dominique Debanne (France)	Analog-digital modulation of synaptic transmission in cortical neurons
15:40-15:55	Bipan Kumar Deb (India)	Drosophila septin, Pnut is a modulator of neuronal Store operated calcium entry
15:55-16:10	Maria Ryazantseva (Russia)	STIM sensors as molecular targets for memory loss treatment connected with calcium homeostasis impairments in Familial Alzheimer's Disease

16:10-16:40 - COFFEE BREAK

SESSION 8:

Ca²⁺-Channels and Pumps and Cancer

Chairs: Greg Monteith (Australia)

16:40-17:10	Natalia Prevarskaya (France)	Keynote Lecture Calcium and calcium channels in initiation and progression of prostate cancer
17:10-17:30	Greg Monteith (Australia)	Calcium ATPases and breast cancer
17:30-17:50	Albrecht Schwab (Germany)	Calcium regulation of migration pathways important in cancer
17:50-18:05	Haidar AKL (Belgium)	Transforming pro-survival IP3 signaling in B-cell cancers into pro-apoptotic Ca ²⁺ signaling upon Bcl-2 antagonism at the endoplasmic reticulum
18:05-18:20	Abhishek Aggarwal (Austria)	The Calcium Sensing Receptor is a Tumor Suppressor in the Colon Regulating Proliferation, Differentiation, and Epithelial to Mesenchymal Transition

18:20 - POSTER AND BAR

20:00 - CONFERENCE BANQUET
at the historical restaurant [Les 2 garçons](#)

Tuesday September 16, 2014

FREE MORNING

SESSION 9:

Modelling Intracellular Calcium Dynamics

Chair: Geneviève Dupont (Belgium)

14:30-15:00	Martin Falcke (Germany)	Keynote Lecture General properties of IP ₃ -induced Ca ²⁺ spiking
15:00-15:20	Rudiger Thul (UK)	Calcium oscillations in the presence of cellular variability
15:20-15:40	Alexandra Zahradnikova (Slovakia)	Sparks and waves in cardiac myocytes - insights from an allosteric model of ryanodine receptor gating
15:40-15:55	Sten Rudiger (Germany)	Modulation of elementary calcium release and its role in the puff-to-wave transition
15:55-16:10	Insa Wolf (Germany)	Fast subcellular Ca ²⁺ signals in T cell signaling

16:10-18:00 - COFFEE BREAK AND POSTER

Michael Berridge Lecture

Introduced by Philippe Lory (France)

18:00-19:00	Richard Tsien (USA)	A shuttle mechanism combining nanodomain and long-distance calcium signaling
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19:00 - AWARD CEREMONY

Wednesday September 17, 2014

SESSION 10:

Ca²⁺-Signalling at Membrane Contact Sites

Chair: Nicolas Demaurex (Switzerland)

8:30-9:00	Chris Loewen (Canada)	Keynote Lecture Polarization of the yeast ER through ER-septin tethering
9:00-9:20	Paula Nunes (Switzerland)	Dissecting ER-phagosome membrane contact sites
9:20-09:40	Emily Eden (UK)	The role of Ca ²⁺ in the formation and function of ER contact sites with the endolysosomal pathway
9:40-9:55	Donald Gill (USA)	Calcium signal generation through STIM-induced ER-plasma membrane junctions
9:55-10:10	Paula Heister (U.K.)	Glucose and NAADP trigger elementary intracellular Ca ²⁺ signals in pancreatic β -cells

10:10-10:40 - COFFEE BREAK

SESSION 11:

New Horizons in Mitochondrial Calcium Signalling

Chairs: Michael Duchen (UK) - Gyorgy Szabadkai (UK)

10:40-11:10	Gyorgy Hajnoczky (USA)	Keynote Lecture Molecular mechanisms of mitochondrial calcium uptake
11:10-11:30	Diego De Stefani (Italy)	New insights into the regulation of the mitochondrial calcium uniporter
11:30-11:50	Giles Hardingham (UK)	Probing the role and regulation mitochondrial Ca ²⁺ uptake in neurons
11:50-12:05	Frank Gellerich (Germany)	Tissue specific differences of mitochondrial gas pedal: cytosolic Ca ²⁺ regulates the mitochondrial energization with pyruvate
12:05-12:20	Yuekan Shen (China)	Structural and mechanistic insights into MICU1 regulation of mitochondrial calcium uptake

12:20-12:30 - CONCLUDING REMARKS

12:30 - MEETING CLOSES