

MONDAY 23RD JUNE 2025

08:00 Welcome coffee & registration

08:30 Official Opening - **Philippe Roingeard** (President of the University of Tours), **Anne Besnier** (Vice-president of the Region Centre-Val de Loire), **Alain Eyche** (Deputy Director Inserm/Institut Thématique Cancer), **Sophie Gabillet** (General Secretary of LE STUDIUM), **Mohamed Trebak** (Univeristy of Pittsburg, USA - LE STUDIUM Visiting Researcher)

SESSION 1 - Ca²⁺ signal transduction in health and disease

Chair : Natalia Prevarskya

09:00 **Martha Cyert** - Mapping new signaling pathways for calcineurin

09:25 **Patrick Hogan** - Calcium, NFAT, and gene expression in 'exhausted' CD8 T cells

09:50 **Anjana Rao** - The TET-DNMT-ASXL-OGT axis: implications for clonal haematopoiesis, cancer, aging and autoimmune disease

10:15 Coffee break

10:45 **Nicolas Demaurex** - Role of store-operated and mechanosensitive channels in innate immune cells

11:10 **Murali Prakriya** - Regulation of microglial reactivity and neuroinflammation by Orai1 channels

11:35 **Mohamed Trebak** - CRAC channels in smooth muscle (pathol)physiology

12:00 **Eamonn Dickson** - The Functional Landscape of Endoplasmic Reticulum – Plasma Membrane Contact Site Proteins in Neurons

12:15 Lunch break

SESSION 2 - Generation and shaping of Ca²⁺ signals

Chair : Magda Chrzanowska

13:45 **David Yule** - Intracellular Ca²⁺ release channels: shaping Ca²⁺ signals in time and space

14:10 **Geert Bultynck** - Moonlighting function of ryanodine receptors: dynamic control of lysosomal availability for autophagy through ATP6v0a1

14:35 **Liang Feng** - Molecular mechanisms of mitochondrial calcium uniporter

15:00 **Khaled Machaca** - Ca²⁺ Tunneling

15:25 **Richard Lewis** - Regulation of STIM1 and store-operated Ca²⁺ entry by intramolecular brakes

15:50 Coffee break

SESSION 3 - "New" ion channels

Chair : Aubin Penna

16:20 **David Clapham** - New organellar ion channels

16:45 **Stefan Feske** - Novel ion channels in immune cell function

17:10 **Zhaozhu Qiu** - Puromycin-sensitive aminopeptidase acts as an inhibitory auxiliary subunit of volume-regulated anion channels

17:35 **Florian Beignon** - A human mitochondrial isoform of TRPV1 regulates mitochondrial thermolysis by modulating intracellular Ca²⁺ fluxes

17:50 Free evening

TUESDAY 24TH JUNE 2025

08:00 Welcome coffee

SESSION 4 - Ion channel structure and function

Chair : Eitan Reuveny

08:30 **Seok-Yong Lee** - Molecular mechanism of TRPM8 gating

08:55 **Kenton Swartz** - Inactivation mechanisms in voltage-activated cation channels

09:20 **Alexander Sobolevsky** - Regulation and gating of ionotropic glutamate receptors

09:45 **David Julius** - Studying ion channel structures in more native membrane environments

10:10 Coffee break

SESSION 5 - Ion channels and mechanosensitivity

Chair : Bimal Desai

10:40 **Jeffrey Holt** - Mechanotransduction in auditory hair cells: A tale of two channels

11:05 **Medha Pathak** - Molecular choreography of Piezo1 during development and repair

11:30 **Vladimir Chubanov** - New insights into the structure-function relationship of the TRPM7 channel

11:45 **Lu-Yang Wang** - Glutamate directly binds to acid sensing ion channels to exacerbate ischemic brain injury

12:00 Lunch break

SESSION 6 - Ion channels in nerve and muscle

Chair : Maxime Gueguinou

13:30 **Jeanne Nerbonne** - Intracellular fibroblast growth factors in the regulation/dysregulation of neuronal excitability

13:55 **Bruce Bean** - Mechanisms of pacemaking in central neurons

14:20 **Steven Marx** - Unravelling the mechanisms of fight or flight: how the heart responds to adrenergic signals in cardiomyocytes

14:45 **Rose Dixon** - Rad functions as a PKA-regulated endosomal retention factor for CaV1.2 channel trafficking in cardiomyocytes

15:10 **Anna Moroni** - A synthetic potassium channel reduces oxidative stress via cellular adaptronics

15:25 **Philippe Lory** - The gating-modifying mutations in Cav channels are 'gain of function' and cause neurodevelopmental disorders: a case study on Cav3.1 channels

15:40 Poster session 1

18:00 Gala dinner - Château d'Amboise? Departure by bus from Château Belmont

WEDNESDAY 25TH JUNE 2025

08:00 Welcome coffee

SESSION 7 - Ion channel pharmacology and modulation

Chair : Christophe Vandier

08:30 **Mike Salter** - Alternative splicing of NMDAR subunit GluN1 controls actions of ketamine

08:55 **Michel De Waard** - The emergence of natural peptides into the world of photopharmacology

09:20 **Anna Gomez** - Modulation of calcium release channels: Implications for cardiac rhythm and arrhythmias

09:45 **Marie Potier-Cartreau** - The either Lipid-Sensitive SK3 Channel in Cancer

10:10 Coffee break

SESSION 8 - Ion channels and disease

Chair : Rajender Motiani

10:30 **Holly Ingraham** - A Cellular Basis for Heightened Gut Sensitivity in Females

10:55 Olivier Soriani - Ion channels drive intercellular communication in pancreatic ductal adenocarcinoma

11:20 Beth Stutzmann - Shared calcium channelopathies across neurological disorders

11:45 Dejian Ren - Lysosomal ion channels in neurodegenerative diseases

12:10 Diana Bautista - TRPA1 plays a key role in SARS-CoV-2 pain and airway inflammation

12:35 Lunch break

14:00 Poster session 2 & free afternoon

17:00 Reception evening at Chinon : Departure by bus in front of Tours train station at 5pm. Wine tasting at Château de la Grille and Cocktail / surprise event

THURSDAY 26TH JUNE 2025

09:00 Welcome coffee

SESSION 9 - Ion channels and calcium in vascular regulation

Chair : Manuel Navedo

09:30 Mark Nelson - Capillaries as multi-modal sensors of brain activity

09:55 Fernando Santana - Random Yet Rhythmic: How Microvascular Networks Influence Energetics and Excitability in Cardiac Myocytes

10:20 Coffee break

10:50 Jonathan Jaggar - Chloride signaling in endothelial cells

11:15 Madeline Nieves-Cintrón - E-cigarette exposure alters cAMP signaling in vascular smooth muscle

11:40 Scott Earley - Orai channels and neurovascular coupling

12:05 Yann Percherancier - Dynamic Analysis of Ion Channel Gating Using BRET: Unveiling Temporal Signatures for Drug Discovery

12:20 Lunch

14:00 End of the conference

LE STUDIUM

Institute for Advanced Studies

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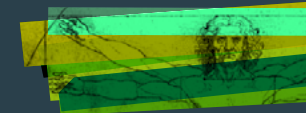


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CONFERENCES

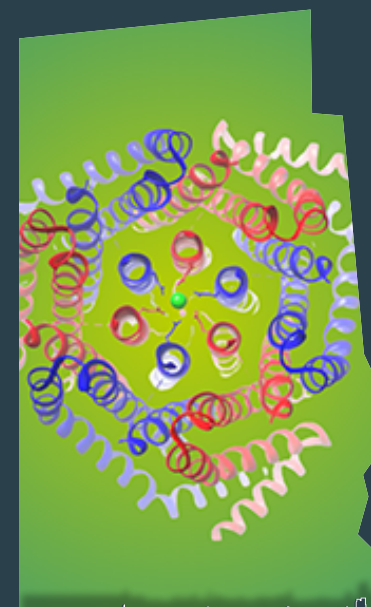
TOURS | 2025

PROGRAMME



23-26 June 2025

Ion channel signaling in health and disease



LOCATION

Château Belmont
57 rue Groison
37000 Tours - FR

CONVENORS

Mohamed Trebak
University of Pittsburgh - USA

Marie Potier-Cartreau & Christophe Vandier
Niche, Nutrition, Cancer & Oxidative metabolism (N2COX) / INSERM, University of Tours - FR



PROGRAMME - INSCRIPTION

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LE STUDIUM

Loire Valley
Institute for Advanced Studies