

# ECS/GDREn°731 workshop

## Calcium signalling as a hub for translational medicine and a starting point to model life

From Sunday 20th to Wednesday 23rd October 2013

Organization Olivier Mignen (UBO – INSERM U1078)

**Where ?** : Centre Nautique de Moulin Mer (Logonna Daoulas)  
Workshop limited to 50 participants

### PROGRAM

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#### Day 1: 20/10/2013

##### Afternoon

- Arrival of participants Brest Airport –Brest Railway Station
  - Shuttle from airport and railway station to the “centre de Moulin Mer”.
  - Registration
  - 19H00 dinner and Welcome event
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#### Day 2: 21/10/2013

##### 7H30-8H30: Breakfast

- **8H30-10H30: Session 1: Ca<sup>2+</sup> toolkit and system biology: Chairman:** Jacques Haiech
  - Introduction : Jacques Haiech (*Strasbourg, France*)
  - Speaker 1: **Jacques Haiech** (*Université de Strasbourg 1 - UMR7200, Strasbourg, France*) How to implement cursus on calcium signaling ?
  - Speaker 2: **Jacques Haiech** Calcium Biobricks: state of the art and perspectives.

##### 10H30-11H00: coffee break

- **11H00-12H00: Session 1: Ca<sup>2+</sup> toolkit and system biology: Chairman:** Jacques Haiech
  - Speaker 3: **Ryad Benosman** : (*Institut de la vision – Paris, France*) Time Oriented

Imaging

##### 12H15-13H30: lunch

- **13H30-16H15: Session 2: Optogenetic approach for illuminating calcium signalling. Chairman:** Thierry Capiod
  - Introduction : Thierry Capiod (*Paris, France*)
  - Speaker 1: **Alex Mouro** : (*Neurobiologie des Processus Adaptatifs UMR 7102 CNRS Paris, france*) Photochemical control of pain sensing neurons
  - Speaker 2: **Stephen Herlitze** : (*Faculty of Biology and Biotechnology – Bochum Germany*) Control of G protein signalling, neuronal activity and behaviour by light activated GPCRs

- Speaker 3: **Deniz Dalkara**: (*Institut de la vision – Paris*) Opto-gene therapy for comprehension and restoration of vision

**16H15-16H45**: coffee break

- **16H45-18H30**: Session 2: Optogenetic approach for illuminating calcium signalling.

**Chairman**: Thierry Capiod

- Speaker 4: **Martin Oheim**: (*INSERM U603-CNRS UMR 8154 Paris, France*) Seeing red for measuring Ca<sup>2+</sup>: new dyes, new sensors, new concepts
- Speaker 5: **Eirini Papagiakoumou**: (*INSERM U603 - CNRS UMR 8154, Paris, France*) Optical techniques for in-depth multi-cell stimulation

**19H00-21H00**: Dinner

- **21H00-23H00**: General assembly of the ECS

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### Day 3: 22/10/2013

**7H30-8H30**: Breakfast

- **8H30-10H30. SESSION 3**: Any future for Ca<sup>2+</sup> toolkit pharmacology?: **Chairman**: Olivier Mignen

- Introduction: Olivier Mignen (*Brest, France*)
- Speaker 1: **Olivier Dellis** (*INSERM U757 Paris XI, France*) New opportunities to regulate the Store-Operated Calcium Entry
- Speaker 2: **Marc Blondel** (*INSERM U1078 – Brest, France*) flirting with calcium signaling-related diseases at happy hour

**10H30-11H00**: Coffee break

- **11H00-13H15. SESSION 3** Any future for Ca<sup>2+</sup> toolkit: **Chairman**: Olivier Mignen

- Speaker 3: **Michel de Waard** (*Société Smartox- INSERM U836, Grenoble, France*) Maurocalcine as pharmacological modulator of the ryanodine receptor: where are we standing and what can we expect from this peptide in the future
- Speaker 4: **Urban Lieber** (*Institute of Organic Chemistry, Karlsruhe, Germany*) Smart microscopy platforms for efficient in vivo 4D small molecule screens
- Speaker 5: **Wesley Brooks**: (*University of South Florida, Tampa, Florida, USA*) virtual screening and peptidomimetics in drug discovery: targeting STIM1

- **13H30-14H00**: lunch

**14H30-17H00**: free afternoon (visit)

- **18H00-19H00** : Round table Catherine Leclerc and Jacques Haiech

**19H00-21H00**: Dinner

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### JOUR 3: 23/10/2013

**7H30-8H30: Breakfast**

- **8H30-10H30: SESSION 4:** Calcium signalling biomarkers in pathology: Relevance and future directions: **Chairman:** Marc Moreau
  - Introduction : Marc Moreau (*Toulouse, France*)
  - Speaker 1: **Christophe Vandier** (*INSERM 1069 –Tours, France*) The calcium activated SK3 channel : from a role on metastasis development to the emergence of the Canceropole Grand Ouest ion channel network
  - Speaker 2: **Ronald Rooke** (*Société Transgene, Illkirch, France*) Can Calcium Signaling be harnessed for cancer immunotherapy?

**10H30-11H00: coffee break**

- **11H00-12H30. Session 4:** Calcium signalling biomarkers in pathology: Relevance and future directions: **Chairman:** Marc Moreau
  - Speaker 3: **Roman Krzysiek** (*Centre de recherche Inserm, U996, Clamart, France*) TRPM4-dependent regulation of calcium influx controls Foxp3+ Treg cell function and survival
  - Speaker 4: **François Iris** (*CSO Bio-Modeling Systems, Paris, France*) Calcium signaling alterations in neuropsychiatry: “Biomarker” becomes a functionally very indirect and context-dependent concept

**12H45-14H00: lunch**

- **14H00:** Concluding remarks.
- Shuttle for : Brest airport and Brest railway station