

## European Calcium Society 8<sup>th</sup> Workshop

# Calcium Signaling in Aging and Neurodegenerative Diseases

18-20 September 2019

Coimbra | Portugal



SOCIEDADE PORTUGUESA DE NEUROCIÊNCIAS







## 8<sup>th</sup> ECS WORKSHOP ON CALCIUM SIGNALING IN AGING AND NEURODEGENERATIVE DISEASES



# WHEN

### 18 – 20<sup>th</sup> September 2019

# WHERE

Coimbra Tryp Hotel Coimbra, Portugal

## **OVERVIEW**

Dear colleagues and friends,

The organizing committee is pleased to welcome you at the 8<sup>th</sup> Workshop of the European Calcium Society (ECS): "**Cell Signaling in Aging and Neurodegenerative Diseases**".

An exciting meeting with a multifaceted and highly interesting scientific program was prepared to create a unique opportunity to meet and discuss the latest research advances in understanding calcium signalling in the brain underlying aging and neurodegenerative disorders.

The scientific program is structured into four tracks dedicated to synaptic calcium, mitochondrial and endoplasmic reticulum calcium, calcium signaling in glia and stem cells and a special session dedicated to technological innovations in calcium imaging, which will be followed by a hands-on session, for interested participants.

These sessions will be complemented by two poster parties where we expect ample discussion between young and experienced researchers. Short oral presentations will be selected from submitted abstracts.

ECS and local organizers would like to encourage young scientists in the calcium fields to submit their abstracts and present their latest work.

We look very much forward to welcoming all of you in Coimbra!

# **ORGANIZERS**



### Cláudia Pereira

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# **SCIENTIFIC COMMITTEE**



### Amanda Sierra

Achucarro Basque Center for Neuroscience University of the Basque Country Spain



### **Carlos B. Duarte**

Department of Health and Life Science Center for Neuroscience and Cell Biology University of Coimbra Portugal



### **Carlos Villalobos**

Spanish National Research Council - CSIC Spain



### Catarina Resende de Oliveira

Faculty of Medicine Center for Neuroscience and Cell Biology University of Coimbra Portugal



### Jan B. Parys

Laboratory of Molecular and Cellular Signaling Department of Cellular and Molecular Medicine KU Leuven Belgium



### Rodrigo Cunha

Faculty of Medicine Center for Neuroscience and Cell Biology University of Coimbra Portugal

# **INVITED SPEAKERS**



## Plenary Conference

#### Giles E. Hardingham

The University of Edinburgh United Kingdom



**Ana Sebastião** Faculty of Medicine IMM Portugal



**Antonio Garcia** Universidad Autónoma de Madrid Spain



**Carlos Villalobos** Spanish National Research Council - CSIC Spain



**Grace Stutzmann** Rosalind Franklin University USA



**Catherine Leclerc** Center for Integrative Biology France



**J Kuźnicki** Int. Institute of Molecular and Cell Biology Poland

# **INVITED SPEAKERS**





Javier García-Sancho University of Valladolid Spain

**João Relvas** University of Porto Portugal



**Leopoldo Petreanu** Champalimaud Foundation Portugal



**Maria Ankarcrona** Karoliska Institute Sweden



**Martin Lauritzen** University of Copenhagen Denmark



**Michael Duchen** University College London United Kingdom



**Olga Corti** Brain and Spine Institute France



**Paola Pizzo** University of Padova Italy

# PROGRAM

### WEDNESDAY

- 14:00 Introduction and welcome
- 14:30 Symposium 1: Synaptic calcium

Chairs: Giles E. Hardingham & Rodrigo Cunha

Grace Stutzmann (USA): Early pathogenic calcium signaling

cascades in Alzheimer's disease

<u>Ana Sebastião</u> (Portugal): Modulation of synaptic activity and astrocytic calcium signaling by cannabinoids

Antonio Garcia (Spain): Altered calcium handling and exocytosis in chromaffin cells from mouse models of neurodegenerative diseases

- 16:30 Coffee break and poster session
- 18:00 Plenary Conference: Giles E. Hardingham (UK)
- 19:00 Welcome cocktail

### THURSDAY

8:30 Symposium 2: *Mitochondrial calcium* 

Chairs: Ana Cristina Rego & Catarina Oliveira

<u>Michael Duchen</u> (UK): Linking mitochondrial dysfunction to neurodegeneration: Impaired mitochondrial bioenergetic capacity sensitises neurons to calcium overload

<u>Maria Ankarcrona</u> (Sweden): TOM70: a new player regulating Ca2+-transfer at the endoplasmic reticulum-mitochondria signaling platform

<u>Olga Corti</u> (France): Mechanisms underlying regulation of mitochondrial quality by the PINK1/Parkin pathway and consequence of their dysfunction

10:30 Coffee break

- 11:00 Oral Communications Session 1
- 13:00 Lunch and poster session

#### 14:00 Symposium 3: ER calcium

Chairs: Cláudia Pereira & Jan B. Parys

Jacek Kuznicki (Poland): Calcium signaling in zebrafish and mice models of neurodegeneration

Carlos Villalobos (Spain): Calcium remodeling in aging and AD Paola Pizzo (Italy): Multiple effects of Presenilin 2 on intracellular

Ca2+ handling: functional consequences for neurodegeneration

- 16:00 Coffee break
- 16:30 Oral Communications Session 2
- 18:00 Social event: Visit to University of Coimbra
- 20:00 Conference dinner

# PROGRAM

### FRIDAY

8:30	Symposium 4: <i>Calcium in glia and stem cells</i>			
	Chairs: João Malva & Amanda Sierra			
	Martin Lauritzen (Denmark): Calcium-dependent mechanisms of			
cerebral blood flow regulation				
	<u>João Relvas</u> (Portugal): TBA			
	Catherine Leclerc (France): Calcium-dependent signaling in			
glioblastoma stem-like cells				
10:30	Coffee break			
11:00	Symposium 5: Technical approaches on calcium imaging			
	Chairs: Luísa Cortes & Carlos Villalobos			
	Leopoldo Petreanu (Portugal): Shining light on hierarchical cortical			
interactions				
	Javier García-Sancho (Spain): GAP, flies, sarcoplasmic reticulum			
and aging				
12:30	Final remarks			
12:45-13:30 ECS General Assembly				

#### Optional:

14:00-18:00 Hands-on on microscopy calcium imaging @ Microscopy Imaging Center of Coimbra University of Coimbra-polo I

# WEBSITE

WWW.8THWORKSHOPECS.COM

# **ABSTRACT INFORMATION**

### ABSTRACT

Abstracts have to be uploaded on the workshop registration form, using the template provided (1 page).

Each registered participant is allowed to submit one abstract.

#### POSTER

Posters should be prepared in portrait format (width maximally 1m00, height maximally 1m60).

Posters will have to be set-up the first day of the meeting before the opening session (i.e. directly after registration) and will remain on display until the end of the poster session on Friday afternoon. Fixation material for the posters will be available.

Posters will be on display during the complete meeting with ample time for discussion.

Importantly, all posters have to be removed on the Friday, before the start of Session 5.

#### **ORAL COMMUNICATIONS**

Although most presentations will be by posters, a fair amount of the submitted abstracts will be selected for oral presentations.

Oral presentations will last 10 min + 5 min discussion time. To stimulate presentation of novel work, at least half of the slots for oral communications will be attributed to junior researchers.

Selection of the abstracts for oral communication will be announced at least one month before the start of the workshop.

# **IJMS SPECIAL ISSUE**

Participants to the ECS workshop are invited to submit a review or research paper on the topic to our dedicated **special issue of International Journal of Molecular Sciences**, an open access journal.

For more information please visit: <u>https://www.mdpi.com/journal/ijms/special\_issues/Ca\_Signaling\_Aging\_Neur</u> <u>odegener</u>

# REGISTRATION

### **Early-bird Registration**

Early registration fee apply to all registrations with proper payments received **before June 30th.** Only after payment your registration becomes effective.

#### **Registration Deadline**

Deadline for registration and abstract submission is July 31st.

**NOTE**: Please note that if the maximal amount of participants is reached earlier (max. 100), the Organizers have the right to close registration ahead of time.

Registration fees for participants include in all cases: attendance to the workshop, lunch (Thursday), all coffee breaks, welcome cocktail (Wednesday) and gala dinner (Thursday).

Registration Fee				
		Early-bird	Regular	
		(until June 30th)	(until July 31st)	
ECS member*	Student**	150€	175€	
ECS member	Academic	250€	300 €	
NON-ECS	Student**	225€	250 €	
member	Academic	325€	375 €	
Hands-on Calcium imaging	All	25€	30€	

\*Interested scientists are always welcome to join the ECS. This can be done by filling the membership form available at:

https://gbiomed.kuleuven.be/apps/lmcs/ecs/society/membership/membership.php

\*\*are considered students those working towards a Master/Ph.D. degree and holder of a valid student card delivered by an academic institution.

#### **Cancellation Policy**

Payment is expected to be performed as soon as possible after registration. An official receipt will be issued as proof of registration once the payment has been credited on our account, which typically takes about one week.

Cancelations are possible until closure of the registrations. Reimbursement can be asked, however limited to an administrative fee of €50 (before July 15th) or €100 (after July 15th) deducted from the amount.





City of the students and a World Heritage Site, Coimbra is a unique city and has great historical heritage. Here were born six kings of Portugal and the first university in the country, one of the oldest in Europe. When visiting the city you can find monuments and historical treasures, the vibrant Mondego river and the Fado sung by the singers of the region.



The workshop will be held at the Hotel Tryp Coimbra, located on one of the hills of the city of Coimbra, and only 15 minutes walking from the famous University. The Hotel Tryp Coimbra has dedicated spaces for meetings and events, combined with easy access, and parking.

WiFi connection is available to all participants.

# **TRAVELING TO COIMBRA**

Coimbra is located in central Portugal, 120 km south of Porto, 195 km north of Lisbon. One of Portugal's biggest crossroads, Coimbra is served by multiple transportation methods.

🛪 💼 Porto

1h

1h30/2h

Lisboa

3h

Faro

Coimbra

1h15

2h

#### Airport -

Those travelling from outside Portugal will probably y to Lisbon or Porto, although Faro could also be an option. Good train/shuttle connections to Coimbra are readily available

#### Train

Rail travel from both Lisbon and Porto is regular, fast and reliable provided you take the Alfa Pendular or Intercidades

#### **Shuttle Services**

Coimbra Airport Shuttle operates a door-to-door shared transfer between Lisbon (36€)/Porto (29€) airport and Coimbra

#### BUS / Taxi

Coimbra is served by the A1, the main highway of Portugal, arrival by Taxi, or BUS - Rede Expressos, is also convenient and fast.