

## Calcium Signalling

### Gordon Research Conference

#### Intracellular Calcium Signals: Generation, Function and Therapeutic Intervention

##### Dates

June 18-23, 2017

##### Location

Renaissance Tuscany Il Ciocco  
Lucca (Barga), Italy

##### Organizers

Chair:

**Anant B. Parekh**

Vice Chairs:

**Gary St. John Bird & Mohamed Trebak**

#### Application Deadline

Applications for this meeting must be submitted by **May 21, 2017**. Please apply early, as some meetings become oversubscribed (full) before this deadline. If the meeting is oversubscribed, it will be stated here. *Note:* Applications for oversubscribed meetings will only be considered by the Conference Chair if more seats become available due to cancellations.

#### Meeting Description

Ca<sup>2+</sup> signaling is an evolutionarily conserved pathway that plays prominent roles in cellular function from primitive eukaryotic uni-cellular organisms all the way to humans. Cytoplasmic Ca<sup>2+</sup> is a remarkably versatile second messenger - essentially every cell in the body has vital processes controlled by intracellular free Ca<sup>2+</sup>. These processes include neurotransmission, muscle contraction, metabolism, immune cell activation as well as fertilization and cell death. Given its central role in cell physiology, it is no surprise that aberrant Ca<sup>2+</sup> signaling is increasingly recognized as a crucial mechanism underlying cell damage associated with pathophysiology in numerous diseases such as allergy, pancreatitis, Alzheimer's and Parkinson's diseases, cardiac hypertrophy and arrhythmias, and hypertension. In fact, Ca<sup>2+</sup> signalling has also been linked to major world health issues including malaria and toxoplasmosis. This conference will bring together the world's leaders in Ca<sup>2+</sup> research together with graduate students and postdocs with the primary goal of enhancing our understanding of the molecular mechanisms of Ca<sup>2+</sup> signaling and homeostasis, how Ca<sup>2+</sup> signals can produce physiological and pathological effects and how Ca<sup>2+</sup> channels can be targeted for therapeutic benefit.

#### Related Meeting



This GRC will be held in conjunction with the "Calcium Signalling" Gordon Research Seminar (GRS). Those interested in attending both meetings must submit an application for the GRS in addition to an application for the GRC. Refer to the [associated GRS program page](#) for more information.

#### Contributors



## Preliminary Program

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The topics and speakers for the conference sessions are displayed below (*italics denote discussion leaders*). The Conference Chair is currently developing their detailed program, which will include the complete meeting schedule, as well as the talk titles for all speakers. The detailed program will be available by **February 18, 2017**. Please check back for updates.

- **Calcium and Cell Function; Cells, Organs and Organisms**  
(*Michael Berridge / Ole Petersen / Kevin Foskett*)
- **New Insights into Ca<sup>2+</sup> Stores and Intracellular Calcium Channels**  
(*Katsuhiko Mikoshiba / David Yule / Maike Glitsch / Andreas Guse / Masamitsu Iino*)
- **Restricting Ca<sup>2+</sup> Signals Spatially: Micro- and Macrod domains**  
(*Tullio Pozzan / Erwin Neher / Tamas Balla / Alexei Tepikin / Shmuel Muallem*)
- **Plasma Membrane Calcium Channels; TRPS and VOCCS**  
(*Indu Ambudkar / Amy Lee / Annette Dolphin / Reinhold Penner*)
- **Orai Channels: Mechanism and Function**  
(*James Putney / Christoph Romanin / Patrick Hogan / Donald Gill / Richard Lewis*)
- **Mitochondrial Ca<sup>2+</sup> Dynamics**  
(*Andrew Thomas / Rosario Rizzuto / Israel Sekler*)
- **Targeting Ca<sup>2+</sup> Channels for Drug Discovery: The View from Pharma**  
(*Colin Taylor / David Madge / Klaus Seuwen*)
- **Ca<sup>2+</sup> Signals in Inflammatory and Immunological Disease**  
(*Aldebaran Hofer / Nicolas Demaurex / Murali Prakriya / Stefan Feske*)
- **Keynote Session: Calcium Signalling: Life in the Fast Lane / Late-Breaking Topics**  
(*Anant Parekh / Markus Hoth*)
- **Power Hour**  
(*Maike Glitsch*)