



RESEARCH CONFERENCES

ESF-EMBO Symposium

Emergent Properties of the Cytoskeleton: Molecules to Cells

Hotel Eden Roc, Sant Feliu de Guixols (Costa Brava) • Spain
3-8 October 2010

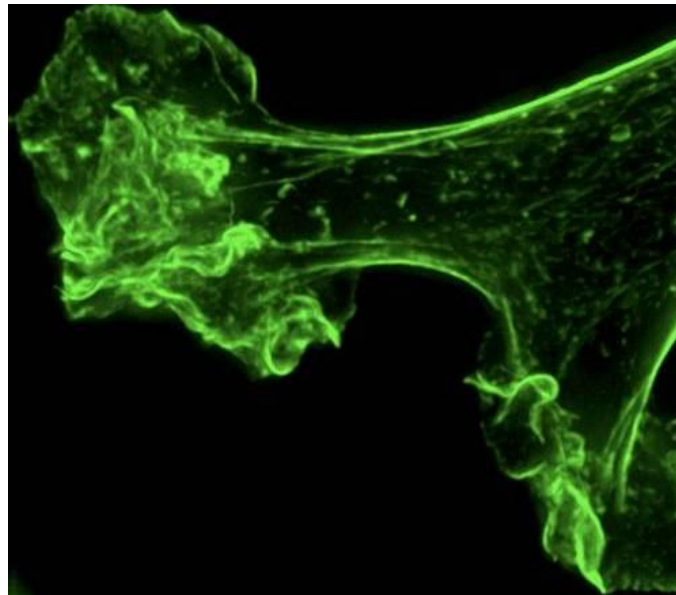
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**Comissionat per a Universitats
i Recerca**

The cytoskeletal field is fast moving and changing very quickly. As well as new discoveries in how proteins are assembled, regulated and interact to contribute to cell behaviour and function, there are new developments in imaging technology, and in chemical biology that are pushing forward the frontiers of research into the cytoskeleton and cell behaviour. Indeed, cytoskeletal research often works as a paradigm for the development of new imaging techniques and experimental approaches, because of its well characterized cellular structure.

This conference will address the best and the newest developments in this research area. It brings together researchers from a broad range of scientific backgrounds, but with a common aim of understanding the basic properties of the cytoskeleton, and how it is organised and utilised by cells and tissues.

This meeting intends to capitalize on the cross-fertilization of ideas between researchers from different experimental backgrounds to generate new collaborations and ideas. The topics to be covered include subjects from passive mechanical properties of the cytoskeleton, to how the cytoskeleton acts as tracks for motors and the behaviour of single molecules that move along these tracks, and how the cytoskeleton and motors are regulated inside cells. It will cover emerging and state-of-the-art techniques used to investigate the properties of these molecules in vitro ranging from biochemical approaches to optical trapping and AFM, and it will showcase how experimental work is increasingly integrating what we know from studies of isolated molecules to how macromolecular assemblies interact and function in cells, providing a molecular understanding for complex systems.

We particularly want to encourage young researchers to attend, and become involved in this exciting and challenging area of research.



Chair: Michelle Peckham - University of Leeds, UK

Co-Chair: Claudia Veigel - National Institute of Medical Research, UK

Invited Speakers will include:

● **Plenary Lecture on Photo-activated Localization Microscopy**

- Jennifer Lippincott Schwartz - NIH, US

● **Cytoskeletal Motors**

- Stan Burgess - Leeds U., UK

- Anne Houdusse - Institute Curie, FR

- Carolyn Moores - Birkbeck, London, UK

● **Understanding the Cytoskeleton in the Test Tube**

- Patricia Bassereau - Institut Curie, FR

- Marie-France Carlier - CNRS, FR

- Jan Faix - U. Hannover, DE

- Jo Howard - Max-Planck-Institute, DE

● **Actin Dynamics & Regulation in the Cell**

- Pekka Lappalainen - Institute of Biotechnology, SF

- Anne Ridley - King's College London, UK

- Klemens Rottner - HZI, DE

● **Single Molecules & Forces**

- Marileen Dogterom - AMOLF-Amsterdam, NL

- Matthias Rief - U. Munich, DE

- Claudia Veigel - NIMR, UK

● **Microtubule Dynamics & Regulation in the Cell**

- Anna Akhmanova - EMC Dept. of Cell Biology, NL

- Erika Holzbaur - U. Pennsylvania, US

- Gero Steinberg - U. Exeter, UK

● **Cytoskeleton and Mechano-Sensing**

- Sasha Bershadsky - Weizmann Institute, IL

- Pierre-Francois Lenne - IBDM, FR

- Christoph Schmidt - Georg-August-U., DE

● **Seeing More – New Microscopical Approaches**

- Gerard Marriott - U. California, Berkeley, US

- Justin Molloy - NIMR, UK

- Peter Rosenthal - NIMR, UK

Application form & programme available from

www.esf.org/conferences/10326

Closing date for application: 15 July 2010

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