



## ESF Research Conferences

A Programme of the European Science Foundation

# Joint EMBO-FEBS-ESF Workshop on Membrane Dynamics in Endocytosis

Sant Feliu de Guixols (Costa Brava), Spain, 17 – 22 September 2005

Chair: **Margaret Scott Robinson** (University of Cambridge, UK)  
Vice-Chair: **Howard Riezman** (University of Geneva, CH)

With support from *Traffic* (Blackwell Publishing).  
and Generalitat de Catalunya



[www.gencat.net](http://www.gencat.net)

## Final Programme

On line at: <http://www.esf.org/conferences/lc05057>

### Saturday 17 September

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Late afternoon / early evening	Registration at the hotel reception and ESF desk
20.00	Dinner
21.30	Welcome drink

### Sunday 18 September

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08.45-09.00      Conference Opening

#### Session 1: Entry into the Cell

Chair: **Wolfhard Almers** (Vollum Institute, Portland, US)

09.00-09.35	<b>Christien Merrifield</b> (Medical Research Council, Cambridge, UK) <i>Imaging clathrin-mediated endocytosis in living cells</i>
09.35-10.10	<b>Tom Kirchhausen</b> (Harvard Medical School, Boston, US) <i>Mechanism of Coated Vesicle Formation</i>

- 10.10-10.45 **Sandra Schmid** (The Scripps Research Institute, La Jolla, US)  
*Dual Role for Dynamin in Endocytosis*
- 10.45-11.10 Coffee break
- 11.10-11.45 **Ari Helenius** (Swiss Federal Institute of Technology, Zürich, CH)  
*Pathways of virus entry*
- Short oral presentations**
- 11.45-12.10 **Jennifer Gallop** (MRC Cambridge, UK)  
*Endophilin and synaptic vesicle retrieval – a molecular mechanism*
- 12.10-12.35 **Sandra Lemmon** (University of Miami, US)  
*Role of Scd5p in Actin Organization and Endocytosis in Yeast*
- 12.35-13.00 **Tobias Walther** (University of California, San Francisco, US)  
*Eisosomes: A static cortical protein assembly that defines sites of endocytosis*
- 13.00 Lunch

## Session 2: Transport to and from Endosomes

Chair: Maria Isabel Geli Fernandez-Penaflor (CSIC, Barcelona, ES)

- 15.30-16.05 EMBO Young Investigator Lecture  
**Ben Nichols** (Medical Research Council, Cambridge, UK)  
*Clathrin-independent endocytosis*
- 16.05-16.40 **Satyajit Mayor** (National Centre for Biological Sciences, Bangalore, IN)  
*Rafts, nanoscale clusters and endocytosis of GPI-anchored proteins*
- 16.40-17.15 **Howard Riezman** (University of Geneva, CH)  
*Sterols and endocytosis*
- 17.15-17.40 Coffee break
- 17.40-18.15 **Juan Bonifacino** (National Institutes of Health, Bethesda, US)  
*Sorting of transmembrane proteins mediated by dileucine-based signals*
- Short oral presentations**
- 18.15-18.40 **Mark McNiven** (Mayo Clinic College of Medicine, Rochester, US)  
*Participation of Different Dyn2 Spliced Variants in Distinct Endocytic Processes*
- 18.40-19.05 **Barth Grant** (Rutgers University, Piscataway, US)  
*Caenorhabditis elegans RME-6, a novel regulator of Rab5 at the clathrin-coated pit.*
- 19.05-19.30 **Georg Borner** (University of Cambridge, UK)  
*Proteomic Analysis of Clathrin-Coated Vesicles*
- 19.30 Dinner
- 21.00 **Poster session**

### Session 3: Endosomal Organisation and Dynamics

Chair: Rosine Haguenauer-Tsapis (Université Paris VII, FR)

- 09.00-09.35 **Elizabeth Conibear** (University of British Columbia, Vancouver, CA)  
*Regulating Golgi/Endosomal Transport*
- 09.35-10.10 **Scott Emr** (University of California at San Diego, US)  
*ESCRTs for receptor down-regulation and protein degradation*
- 10.10-10.45 **Harald Stenmark** (The Norwegian Radium Hospital, Oslo, NO)  
*Receptor trafficking from endosomes to lysosomes: The role of phosphoinositides and clathrin*
- 10.45-11.10 Coffee break
- 11.10-11.45 **Ira Mellman** (Yale University, New Haven, US)  
*Endocytosis and lysosomal function in dendritic cells*
- Short oral presentations
- 11.45-12.10 **Akihiko Nakano** (University of Tokyo, JP)  
*AtVps9, a guanine nucleotide exchange factor for Rab5-related GTPases in Arabidopsis*
- 12.10-12.35 **Mark Field** (University of Cambridge, UK)  
*Control of recycling systems in trypanosomes - developmental regulation by Rab11 and Rab4*
- 12.35-13.00 **Clare Futter** (University College London, UK)  
*EGF stimulates annexin 1-dependent inward vesiculation within a sub-population of multivesicular endosomes*
- 13.00 Lunch

### Session 4: Endocytosis and Signalling

Chair: Inger Helene Madshus (University of Oslo, NO)

- 15.30-16.05 **Paolo Di Fiore** (FIRC Inst. of Molecular Oncology Foundation, Milan, IT)  
*Ubiquitination: endocytosis and signaling*
- 16.05-16.40 **Sylvie Urbé** (University of Liverpool, UK)  
*Endocytosis of growth factor receptors: The DUB version*
- 16.40-17.15 **Niko Geldner** (The Salk Institute, La Jolla, US)  
*The plant steroid receptor BRI1 as a model for endosomal trafficking in plants.*
- 17.15-17.40 Coffee break
- 17.40-18.15 **Pietro De Camilli** (Yale University, New Haven, US)  
*Membrane deforming proteins in endocytosis*
- Short oral presentations
- 18.15-18.40 **Ruben Aguilar** (Johns Hopkins University, Baltimore, US)  
*The endocytic protein Epsin regulates the Cdc42 signal transduction pathway through binding Cdc42 GTPase Activating Proteins*

- 18.40-19.05 **Miguel Angel Del Pozo** (CNIC Madrid, ES)  
*Caveolin-1 Mediates Integrin-Regulated Membrane Domain Endocytosis*
- 19.05-19.30 **Carlo Tacchetti** (University of Genoa, IT)  
*Relationships between EGFR signaling-competent and endocytosis-competent membrane microdomain*
- 19.30 Dinner
- 21.00 Keynote Lecture  
**Marino Zerial** (Max-Planck-Institute of Molecular Cell Biology & Genetics, Dresden, DE)  
*Principles of membrane compartmentalization in endosome biogenesis, trafficking and signaling.*
- 22.00 **Poster session & Open bar** (sponsored by *Traffic*, Blackwell Publishing)

## Tuesday 20 September

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### Session 5: Endocytosis and Development

Chair: Elizabeth Smythe (University of Sheffield, UK)

- 09.00-09.35 **Marcos González-Gaitán** (Max-Planck-Institute of Molecular Cell Biology & Genetics, Dresden, DE)  
*Sara endosomes and the partition of signaling molecules during mitosis*
- 09.35-10.10 **Michael Brand** (Max-Planck-Institute for Molecular Cell Biology & Genetics, Dresden, DE)  
*Role of endocytosis in limiting Fgf8 signaling during early neural development of the zebrafish*
- 10.10-10.45 **Jean-Paul Vincent** (Medical Research Council, London, UK)  
*Trafficking of the Wingless signal in developing epithelia*
- 10.45-11.10 Coffee break
- 11.10-11.45 **Gregory Emery** (Institute of Molecular Biotechnology, Vienna, AT)  
*Polarized vesicle trafficking during asymmetric cell division in Drosophila*
- Short oral presentations**
- 11.45-12.10 **Anjon Audhya** (University of California at San Diego, US)  
*A screen to identify membrane trafficking components required for cellularization in the C. elegans gonad*
- 12.10-12.35 **Roland Le Borgne** (ENS Paris, FR)  
*Two distinct E3 ubiquitin ligases have complementary functions in the regulation of Delta and Serrate signaling in Drosophila.*
- 12.35-13.00 **Anne-Kathrin Classen** (Max-Planck-Institute for Molecular Cell Biology & Genetics, Dresden, DE)  
*Planar cell polarity proteins and Dynamin mediate junction remodelling and hexagonal packing in the Drosophila wing epithelium*
- 13.00 Lunch
- 14.00 **Half-day excursion to the Dali Museum**

19.30 Dinner  
21.00 Poster session

## Wednesday 21 September

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### Session 6: Endocytosis and the Immune System

Chair: Peter Van der Sluijs (University Medical Center Utrecht, NL)

09.00-09.35 **Jacques Neefjes** (Netherlands Cancer Institute, Amsterdam, NL)  
*Dynamics within multivesicular structures, phagosomes and antigen presentation by MHC class II molecules.*

09.35-10.10 **Peter Peters** (Netherlands Cancer Institute, Amsterdam, NL)  
*The Phagosome as antigen processing compartment.*

10.10-10.45 **Jean Gruenberg** (University of Geneva, CH)  
*Dynamics of Intra-Luminal Membranes*

10.45-11.10 Coffee break

11.10-11.45 **Gillian Griffiths** (University of Oxford, UK)  
*Polarised secretion in the immune system*

Short oral presentations

11.45-12.10 **Nathalie Sauvonnet** (Institut Pasteur, Paris, FR)  
*Cortactin and Dynamin are required for the Clathrin-Independent Endocytosis of two Cytokine Receptors*

12.10-12.35 **Thierry Soldati** (University of Geneva, CH)  
*An interaction network links a myosin I to the membrane trafficking and actin nucleation machineries during phagocytosis*

12.35-13.00 **Albert Haas** (University of Bonn, DE)  
*Rhodococcus equi containing vacuoles - a novel endocytic compartment*

13.00 Lunch

### Session 7: Hijacking by Pathogens

Chair: Kirsten Sandvig (The Norwegian Radium Hospital, Oslo, NO)

15.30-16.05 **Pascale Cossart** (Institut Pasteur, Paris, FR)  
*A role for endocytosis in bacterial entry into mammalian cells*

16.05-16.40 **John Heuser** (Washington University School of Medicine, St. Louis, US)  
*Imaging exactly how poxviruses fuse with cells and then 'pirate' intracellular membrane-trafficking pathways for their own purposes of proliferation and dissemination.*

16.40-17.15 **Paul Lehner** (University of Cambridge, UK)  
*Cell surface receptor regulation by viral and cellular ubiquitin E3 ligases*

17.15-17.40 Coffee break

17.40-18.15 **Mark Marsh** (Medical Research Council, London, UK)  
*Endocytic organelles in HIV assembly and trans-infection*

### Short oral presentations

- 18.15-18.40 **Renate Fuchs** (Medical University of Vienna, AT)  
*Endocytic and exocytic traffic is affected by human rhinovirus replication*
- 18.40-19.05 **Ludger Johannes** (Institut Curie, Paris, FR)  
*Molecular mechanisms and cargo proteins involved in retrograde sorting at the early/recycling endosomes-TGN interface*
- 19.05-19.30 **Lukas Pelkmans** (Max-Planck-Institute, Dresden, DE)  
*Functional genomics on virus entry and endocytosis combined with high-resolution imaging and computational analysis of caveolar dynamics at the cell surface.*
- 19.30 **Special discussion about the future of the conference series**
- 20.00 **Get-together-drinks, Conference Dinner & Poster Prizes Award**

### Thursday 22 September

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Morning Breakfast & departure

There will be no **short talks** other than those announced on the programme.  
All other abstracts are accepted as **posters**.