



INSTITUTE
FOR RESEARCH
IN BIOMEDICINE

Barcelona BioMed Conference Morphogenesis and Cell Behaviour October 6-8, 2008

Programme

Monday, October 6, 2008

8.00 Registration

9.00 Welcome by Joan J Guinovart, IRB Barcelona Director

Session I: Cell polarity and cell adhesion in morphogenesis

9.15 **James Castelli-Gair**

Centro Andaluz de Biología del Desarrollo (Sevilla, Spain)

Conversion of antero-posterior Hox information into apico-basal cellular information during organogenesis

9.45 **Maria Leptin**

University of Cologne (Cologne, Germany)

The role of adherens junction dynamics for efficient cell shape changes

10.15 **Michel Labouesse** *Institut de Génétique et de Biologie Moléculaire et Cellulaire (Illkirch, France)*

Cytoskeleton and junction remodelling during *C.elegans* embryonic elongation

10.45 Coffee break and poster session

11.30 **Carl-Philipp Heisenberg**

Max Planck Institute of Molecular Cell Biology and Genetics (Dresden, Germany)

The role of cell adhesion and tension for germ layer formation during gastrulation

12.00 **Thomas Lecuit**

Institut de Biologie du Développement de Marseille Luminy (Marseille, France)

Regulation of cell surface mechanics during morphogenesis

12.30 **Benedicte Sanson**

University of Cambridge (Cambridge, UK)

Short talk: Cell shape changes induced by mechanical forces causes the fast phase of *Drosophila* germ-band extension

12.45 Franck Pichaud

Medical Research Council (London, UK)

Short talk: Hedgehog signaling is a principal inducer of Myosin II driven cell ingression in *Drosophila* epithelia

13.00 Lunch (Fresco)

14.45 Coffee break (Institut d'Estudis Catalans)

15.15 Jordi Casanova

IRB Barcelona and IBMB/CSIC (Barcelona, Spain)

Intracellular trafficking, cell adhesion and cell movement in the *Drosophila* trachea

15.45 Adam Martin

Princeton University (Princeton, USA)

Short talk: Developmentally controlled cycles of actinmyosin network contraction drive apical constriction

16.00 Mark Peifer

University of North Carolina (North Carolina, USA)

Coupling cell adhesion to cell shape change during embryonic morphogenesis.

16.30 Coffee break and poster session

Tuesday, October 7, 2008

Session II: Growth, cell death and pattern

9.00 Enrico Coen

John Innes Centre (Norwich, UK)

Modelling genes, growth and form in plants

9.30 Marco Milán

IRB Barcelona/ICREA (Barcelona, Spain)

Causes and consequences of growth in the *Drosophila* wing

10.00 Ernesto Sanchez-Herrero

Centro de Biología Molecular Severo Ochoa

(Madrid, Spain)

The role of apoptosis in the formation of *Drosophila* leg joints

10.30 James Sharpe

Center for Genomic Regulation (Barcelona, Spain)

Short talk: New tools to understand vertebrate limb morphogenesis: Combining 3D computer modeling with quantitative empirical data

10.45 Coffee break and poster session

11.30 Olivier Pourquié

Stowers Institute for Medical Research (Kansas, USA)

The vertebrate segmentation clock: Converting time into embryonic pattern

12.00 Paola Bovolenta

Instituto Cajal (Madrid, Spain)

Beyond Wnt inhibition: the functions of secreted Frizzled-related proteins in vertebrate eye morphogenesis

12.30 Angela Nieto

Instituto de Neurociencias de Alicante (Alicante, Spain)

Snail genes in bone development and homeostasis

13.00 Lunch (Fresco)

14.45 Coffee break (Institut d'Estudis Catalans)

15.15 Renze Heidstra

Utrecht University (Utrecht, The Netherlands)

How to build a plant

15.45 Mark Krasnow

*Stanford University School of Medicine
(California, USA)*

The branching program of lung development

Session III: Cell movement and morphogenesis

16.15 Darren Gilmour

EMBL (Heidelberg, Germany)

Organising migrating tissues via chemokine signaling

16.45 Helen Skaer

University of Cambridge (Cambridge, UK)

Short talk: A novel role for hemocytes in organ pathfinding

17.00 Coffee break and poster session

Wednesday, October 8, 2008

9.00 Ruth Lehmann

*The Skirball Institute of Biomolecular Medicine
(New York, USA)*

How germ cells find their niche: Stem cell migration *in vivo*

9.30 Oscar Marín

Instituto de Neurociencias de Alicante (Alicante, Spain)
Mechanisms of neuronal migration in the developing brain

10.00 Lila Solnica-Krezel

Vanderbilt University (Nashville, USA)

Genetic regulation of gastrulation movements in Zebrafish

10.30 Coffee break

11:15 Markus Affolter

Biozentrum (Basel, Switzerland)

Branching morphogenesis in flies and fish: live imaging approaches to study single cell behavior

11.45 Fernando Martin-Belmonte

Centro de Biología Molecular Severo Ochoa (Madrid, Spain)

Short talk: Molecular characterization of the trafficking pathway required for epithelial lumen formation in morphogenesis

12.00 Alfonso Martinez-Arias

University of Cambridge (Cambridge, UK)

Waddington's epigenetic landscapes: molecular and cellular interpretations

12.30 Concluding remarks