



French Cell Adhesion Club Symposium

6-8 June 2016 | SupAgro Montpellier, France

ORGANIZING COMMITTEE:

Anne BLANGY, Franck COMUNALE,
Cécile GAUTHIER-ROUVIÈRE,
Amel METTOUCHI,
Damien PLANCHON

INVITED SPEAKERS

ADHESIVE CUES IN EPITHELIA ARCHITECTURE, CELL MOVEMENT AND TISSUE SEPARATION

Éric THÉVENEAU (Toulouse, France)
Pascal SILBERZAN (Paris, France)
Sandrine ÉTIENNE-MANNEVILLE (Paris, France)
Alissa WEAVER (Nashville, USA)

EXTRACELLULAR MATRIX AND MICROENVIRONMENT

Florence RUGGIERO (Lyon, France)
Sophie TARTARE-DECKERT (Nice, France)

BIOPHYSICS OF CELLULAR ADHESION

Elsa BAZELLIÈRES (Marseille, France)
Atef ASNACIOS (Paris, France)
Martial BALLAND (Grenoble, France)

SUPER-RESOLUTION TO STUDY CELLULAR ADHESION

René-Marc MÈGE (Paris, France)
Olivier ROSSIER (Bordeaux, France)
Alessandra CAMBI (Nijmegen, The Netherlands)

CELL ADHESION-MEDIATED SIGNALING

Amel METTOUCHI (Nice, France)
Anne BLANGY (Montpellier, France)
Vania BRAGA (London, United Kingdom)
Stéphane BODIN (CRBM, Montpellier, France)

INTRAVITAL IMAGING

Danijela VIGNJEVIC (Paris, France)
Jacky GOETZ (Strasbourg, France)

MORPHOGENESIS

François FAGOTTO (Montpellier, France)
Pierre-François LENNE (Marseille, France)



SCIENTIFIC PROGRAM

MONDAY JUNE 6TH

14:00-14:15 Opening

SESSION 1 ADHESIVE CUES IN EPITHELIA ARCHITECTURE, CELL MOVEMENT AND TISSUE SEPARATION

Chair: Corinne ALBIGES-RIZO

14:15-14:45 Éric THÉVENEAU
(CNRS UMR5547, Toulouse, France)

Signal integration during directional migration

14:45-15:15 Pascal SILBERZAN (Institut Curie, Paris, France)

Confined and shaped monolayers

15:15-15:30 Vincent ROMARIC
(CEA / MINATEC / LETI, Grenoble, France)

Organization of a very large population of cells: a phase diagram studied by means of lensfree microscopy

15:30-15:45 Anne REVERSAT
(IST Austria, Klosterneuburg, Austria)

Environmental geometry and actin mechanics rule adhesion-free migration of leukocytes

15:45-16:30 Coffee break & Poster viewing

16:30-17:00 Sandrine ÉTIENNE-MANNEVILLE
(Institut Pasteur, Paris, France)

Regulation of cell polarity by adherens junctions

17:00-17:45 Alissa WEAVER
(Vanderbilt University, Nashville, USA)

Role of exosomes in promoting directional migration of cancer cells

SESSION 2 EXTRACELLULAR MATRIX AND MICROENVIRONMENT

Chair: Sylvie DUFOUR

17:45-18:15 Florence RUGGIERO
(CNRS UMR5242, Lyon, France)

Fishing for collagen function: lessons from zebrafish

18:15-18:45 Sophie TARTARE-DECKERT
(INSEM U1065, Nice, France)

The role of the extracellular matrix (ECM) in melanoma cell plasticity and drug resistance

18:45-19:00 Laurent MULLER
(CIRB - Collège de France, Paris, France)

Lysyl oxydase like-2 (LOXL2) regulates angiogenesis through scaffolding of endothelial basement membrane

19:00-21:00 Welcome drink & Poster session

TUESDAY JUNE 7TH

SESSION 3 BIOPHYSICS OF CELLULAR ADHESION

Chair: Jean-Loup DUBAND

09:00-09:30 Elsa BAZELLIÈRES (IBDM, Marseille, France)

Control of collective cell mechanics by intercellular adhesions

09:30-10:00 Atef ASNACIOS
(Université Paris-Diderot, France)

3D cell shape dictates the onset of force generation and growth of adhesion

10:00-10:30 Martial BALLAND
(CNRS-UMR5588, Grenoble, France)

Initiation of cellular migration: why the rear matters

10:30-10:45 Anaïs BOUISSOU (TBIB, IPBS, Toulouse, France)

Architecture and mechanics of the macrophage podosome

10:45-11:00 Alexander KYUMURKOV
(Institute of Advanced Biosciences, Grenoble, France)

Cross-regulation between $\beta 1$ and $\beta 3$ integrin to control cellular force generation

11:00-11:30 Coffee break & Poster viewing

SESSION 4 SUPER-RESOLUTION TO STUDY CELLULAR ADHESION

Chair: Fred GAITTS-IACOVONI

11:30-12:00 René-Marc MÈGE
(Institut Jacques Monod, Paris, France)

Nanoscale architecture of cadherin-based adhesions

12:00-12:30 Olivier ROSSIER
(CNRS-UMR5297, Bordeaux, France)

Revisiting integrin dynamics and activation inside focal adhesions with super-resolution microscopy and single protein tracking approaches

12:30-13:00 Alessandra CAMBI (Nijmegen, The Netherlands)

Nanoscale architecture of mechanosensory podosomes

13:00-13:15 Frédéric SALTEL (U1053, Inserm, Bordeaux, France)

Proteomic analysis after laser microdissection reveals that invadosomes present intrinsic translational activity

13:15-15:00 Lunch & Poster session

SCIENTIFIC PROGRAM

WEDNESDAY JUNE 8TH

SESSION 5 CELL ADHESION-MEDIATED SIGNALING

Chair: Cécile GAUTHIER-ROUVIÈRE

15:00-15:30 Amel METTOUCHI (INSERM U1065, Nice, France)
The Rac ubiquitylation pathway tunes integrin mechanotransduction for cell growth

15:30-16:00 Anne BLANGY (CRBM, Montpellier, France)
RhoGTPase signaling in the control of osteoclast adhesion and bone resorption

16:00-16:15 Avais DAULAT (TCRCM, Marseille, France)
PRICKLE1 contributes to cancer cell dissemination through its interaction with mTORC2

16:15-16:30 Caroline AROUS (Centre médical universitaire, Geneva, Switzerland)
Integrin-dependent adhesions are crucial to maintain pancreatic β -cell functions

16:30-17:00 Coffee break & Poster viewing

17:00-17:30 Vania BRAGA (Imperial College, London, United Kingdom)
Interplay between cortical tension and junction composition and configuration

17:30-18:00 Stéphane BODIN (CRBM, Montpellier, France)
Role of Flotillins in inter-cellular adhesion and invasion

18:00-18:15 Laurent GAGNOUX-PALACIOS (IBV-INSERM U1071, Nice, France)
Cadherins control Fas cell death receptor signaling: importance in colorectal cancer progression

18:15-18:30 Violaine MOREAU (INSERM UMR1053, Bordeaux, France)
Identification of a novel functional domain in p190RhoGAP found mutated in tumors

20:00 Gala dinner at the restaurant "Le Petit Jardin"

SESSION 6 INTRAVITAL IMAGING

SPONSORISÉE PAR



Chair: Pierre SAVAGNER

09:00-09:30 Danijela MATIC VIGNJEVIC (Institut Curie, Paris, France)

The role of tumor microenvironment in cancer cell invasion

09:30-10:00 Jacky GOETZ (INSERM U1109, Strasbourg, France)
Tracking tumor metastasis *in vivo* at high-resolution

10:00-10:15 Ali SALEH (Institut des Neurosciences de Montpellier - Inserm U1051, Montpellier, France)

A new tridimensional nanofibers scaffold to study the interaction of Glioblastoma Stem Cells with the extracellular matrix

10:15-10:45 Coffee break & Poster viewing

SESSION 7 MORPHOGENESIS

Chair: René-Marc MEGE

10:45-11:15 François FAGOTTO (CRBM, Montpellier, France)
Cell sorting during tissue separation does not rely on differential tension nor differential adhesion on local tension at the boundary interface

11:15-11:45 Pierre-François LENNE (IBDM, Marseille, France)
Shaping cell contacts during tissue morphogenesis

11:45-12:00 Xiaobo WANG (LBCMCP, Toulouse, France)
Two adhesions differentially control basal myosin oscillation and tissue elongation

12:00-12:15 Cédric PLUTONI (Université de Montréal, Montréal, Canada)
Moesin-dependent supra-cellular actin structure mediates cell-cell communication during *in vivo* and *in vitro* collective cell migration

12:15-12:30 César VALENCIA GALLARDO (Collège de France, Paris, France)
Mechanisms of talin-vinculin scaffolds' formation by the Shigella type III invasion effector IpaA

12:30 End of the meeting
Lunch box gift before departure