### SCIENTIFIC PROGRAM

#### WEDNESDAY MAY 23rd

14:00  Welcome introduction: Pr. Jean-Marie LEHN, Nobel Prize in Chemistry 1987

14:10 Session 1: Adhesion of circulating cells

Chair: Raphaël GAUDIN and Benoît HO-TIN-NOË (or Pierre MANGIN)

14:15  Martine JANDROT-PERRUS  
(INSERM U1148, Paris, France)  
Glycoprotein VI in platelet adhesion and activation

14:50  Leo CARLIN  
(Beatson Institute, Glasgow, United Kingdom)  
Leukocyte dynamics in the lung

Selected talks

15:25  Gautier FOLLAIN  
(INSERM UMR-S1109, Strasbourg, France)  
Hemodynamic forces tune the arrest, adhesion and extravasation of circulating tumor cells

15:40  Kateřina KUŽELOVÁ  
(Institute of Hematology and Blood Transfusion, Prague, Czech Republic)  
Adhesion structures in leukemia cells and their regulation by Lyn and PAKs

15:55  Sponsor communications

16:05  Coffee break/Poster session

16:50 Session 2: Biophysical cell adhesion

Chair: Laurent PIEUCHOT and Rodolph JAFFIOL

16:50  Christophe GUILLUY  
(Institute for Advanced Biosciences, Grenoble, France)  
Changes in nuclear shape regulate gene expression

17:25  Xavier TREPAT  
(Institute for Bioengineering of Catalonia, Barcelona, Spain)  
Mechanobiology of epithelial growth and folding

18:00  Tam MIGNOT  
(Laboratoire de Chimie Bactérienne, Marseille, France)  
Bacterial and parasitic gliding motility: a remarkable case of functional convergence

Selected talks

18:35  Dominique VAUTIER  
(Université de Strasbourg, Strasbourg, France)  
Chromatin de-condensation by switching substrate elasticity

18:50  Christophe GIRARD  
(Centre méditerranéen de médecine moléculaire, Nice, France)  
MAPK-targeting therapies induce a cancer cell-autonomous matrix reprogramming involved in melanoma mechanical properties and resistance

Gala Dinner at “La Maison Kammerzel”

#### THURSDAY MAY 24th

8:30 Session 3: Probing adhesion Forces

Chair: Corinne ALBIGES-RIZO and Xavier TREPAT

8:30  Alba DIZ-MUÑOZ  
(EMBL, Heidelberg, Germany)  
Steering cell migration by alternating blebs and actin-rich protrusions

9:05  Matthieu PIEL  
(Institut Curie IPGG, Paris, France)  
Mega deformation: Consequences and mechanisms of large cell and nuclear deformations during migration and growth of immune and cancer cells

Selected talks

9:40  Michael BACHMAN  
(KIT, Karlsruhe, Germany)  
Force-dependent ligand sensing enables αVβ3 integrin to differentiate between fibronectin and high-affinity ligands

9:55  Alexandre BERQUAND  
(UMR CNRS 7369, Reims, France)  
A gentle approach to investigate the influence of LRP-1 silencing on the MDA-MB-231 cancer cells behavior by Atomic Force Microscopy

10:10  Coffee break/Poster session

10:55 Session 4: Cell adhesion in cancer

Chair: Cécile GAUTHIER-ROUVIÈRE and Sophie MARTIN

10:55  Nils CORDES  
(OncoRay-Faculty of Medicine, Dresden, Germany)  
Focal adhesion signaling - Therapy-induced adaptation mechanisms and functional Multi-targeting

11:30  Erik DANEN  
(Leiden University, Leiden, Netherlands)  
Cell adhesion in vasculature and cancer

Selected talks

12:05  Aurélie DOBRIC  
(Université Aix-Marseille, Marseille, France)  
Cadherin-1 and cadherin-3 cooperation determines the aggressiveness of pancreatic ductal adenocarcinoma

12:20  Alexandra FAUSTINO  
(Lisbon University, Lisbon, Portugal)  
A new role for Arl13b in cancer cell migration and invasion through the regulation of cell adhesion to the extracellular matrix

12:35  Sponsor Communications

12:40  Lunch
SCIENTIFIC PROGRAM

FRIDAY MAY 25TH

13:35 Session 5: Cell adhesion in development
Chair: René-Marc MEGE and Gertraud ORENDE
13:35 Michel LABOUESSE
(University Sorbonne, Paris, France)
**Breaking symmetry during morphogenesis through mechanical forces**
14:10 Sylvie DUFOUR
(INSEMr U955, Créteil, France)
**Adhesion crosstalks and interplays with soluble and transcription factors during the development of the enteric nervous system**

Selected talks
14:45 Gautham SANKARA-NARAYANA
(Institut Jacques Monod, Paris, France)
**Myosin-II isoforms play distinct roles on adherens junction dynamics**
15:00 Frédéric SALTEL
(INSEMr, UMR1053, Bordeaux, France)
**Discoidin Domain Receptor 2 promotes matrix degradation inducing tumor neo-angiogenesis**

15:15 Coffee break/Poster session

16:00 Session 6: Cell biology of adhesion
Chair: Anthony LEMARIE and Maxime LEHMANN
16:00 Guillaume MONTAGNAC
(Inserm/Gustave Roussy, Villejuif, France)
**Frustrated endocytosis in cell migration and mechanotransduction**
16:35 Johanna IVASKA
(University of Turku, Turku, Finland)
**Mechanosensitive adhesions governing proliferation and pluripotency**

Selected talks
17:10 Sylvie THUAILT
(Centre de Recherche en Cancérologie de Marseille, Marseille, France)
**Depicting invadopodia molecular landscape by proximity labeling-proteomics in breast cancer cells**
17:25 Adèle KERJOUAN
(Institute for Advanced Biosciences, Grenoble, France)
**Optogenetic modulations of SRC molecular flux encode distinct cytoskeletal and adhesive outputs by specifying signaling pathways**

19:00 Social Event at “Cave des Hospices”

8:30 Session 7: Imaging cell adhesion
Chair: Jacky GOETZ and Guillaume JACQUEMET
8:30 Erik SAHAI
(The Francis Crick Institute, London, United Kingdom)
**Role of the microenvironment in cancer invasion and therapy response**
9:05 Frank WINKLER
(University Hospital Heidelberg, Heidelberg, Germany)
**Novel insights into brain tumors: cellular interactions that drive progression and resistance**

Selected talks
9:40 Dalia EL ARAWI
(Université de Technologie de Troyes, Troyes, France)
**Variable-angle Total Internal Reflection Fluorescence Microscopy: exploring integrin-mediated adhesion**
10:40 Christophe LETERRIER
(Université Aix-Marseille, Marseille, France)
**The axonal cytoskeleton at the nanoscale**

Selected talks
11:15 Ralitza STANEVA
(Institut Curie, Paris, France)
**Tissue explant imaging reveals spatially coordinated migration patterns in the tumor core**
11:30 Anita ECKLY
(EFS Grand Est/INSERM 949, Strasbourg, France)
**Megakaryocytes use podosome-like protrusions for transcellular passage through endothelial cells**

Concluding remarks
**Awards for the best presentations**
End of the symposium