SCIENTIFIC PROGRAM

**WEDNESDAY MAY 23**

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

**14:10** Session 1: Adhesion of circulating cells

Chair: Raphaël GAUDIN and Benoît HO-TIN-NOÉ

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: Biophysic of 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

19:05 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 24**

**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 cell

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 Jérôme DEVY (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 Medecine, 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 Lunch
**13:35 Session 5: Cell adhesion in development**

Chair: René-Marc MÈGE and Gertraud OREN

13:35 **Michel LABOUJESSE**
(Université Sorbonne, Paris, France)
Breaking symmetry during morphogenesis through mechanical forces

14:10 **Sylvie DUFOUR**
(INSERM U955, Créteil, France)
Adhesion crosstalks and interplays with soluble and transcription factors during the development of the enteric nervous system

Selected talks
14:45 **René-Marc MÈGE**
(Institut Jacques Monod, Paris, France)
Myosin-ll isoforms play distinct roles on adherens junction dynamics

15:00 **Frédéric SALTEL**
(INSERM, 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 THUAULT**
(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”**

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**FRIDAY MAY 25TH**

**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

**9:55 Coffee break/Poster session**

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**