

PUSHING THE FRONTIERS OF CELL ADHESION AND INVASION

4 - 7 October 2022, Sète, FRANCE

DIVERSITY OF INVADOSOME FUNCTIONS
CANCER & INVASION
INVASION REGULATION BY CHEMICAL MICROENVIRONMENT
MECHANOBIOLOGY
MIGRATION AND INVASION OF IMMUNE SYSTEM
ADVANCED IMAGING

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INVITED SPEAKERS

Frédéric BARD, France
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Cédric GAGGIOLI, France
Marion JASNIN, Germany
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French Society for Cell Biology

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4 - 7 October 2022, Sète, FRANCE

Tuesday 4th October 2022

14:00 - 16:00 **Welcoming of the participants**

16:00 - 16:15 **Opening Remarks**

SESSION 1

DIVERSITY OF INVADOSOME FUNCTIONS

Session supported by la Gulliver Biomed



Moderator: **Karla Williams** - The University of British Columbia, Vancouver, Canada

16:15 - 16:45 **An invasive podosome-like structure promotes myoblast fusion**
Elizabeth Chen - University of Texas, Dallas, USA

16:45 - 17:00 **Building stable adhesions in the fly**
Actin protrusion and integrin diffusion in developing
Drosophila embryonic muscle attachment site
Tianchi Chen - Interdisciplinary Institute for Neuroscience, Bordeaux, France

17:00 - 17:30 **Imaging megakaryocyte intravasation in mouse bone marrow**
Anita Eckly - University of Strasbourg, Strasbourg, France

17:30 - 18:00 **Coffee break**

18:00 - 18:15 **The Hippo pathway effectors, YAP and TAZ**
are involved in suppressing invadopodia formation
and matrix degradation in cultured cancer cells
Jubina Balan Venghateri - Weizmann Institute of Science, Rehovot, Israel

18:15 - 18:30 **Eukaryotic translation initiation factor 3 complex**
promotes invadosome formation and matrix remodeling
through PI3K/AKT/mTOR pathway upon Src induction
Benjamin Bonnard - Institute of Oncology, Bordeaux, France

18:30 - 19:15 **Keynote Lecture**
Regulation of macrophage podosomes by microtubules
and metabolism
Stefan Linder - University Medical Center Eppendorf, Hamburg, Germany



19:15 **Welcome Cocktail**

20:00 **Dinner**

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Wednesday 5th October 2022

SESSION 2

REGULATION OF INVASION BY CHEMICAL MICROENVIRONMENT

Session supported by la Fondation ARC

Fondation
pour la recherche
sur le cancer



*Moderator: **Eva Faurobert** - Institute for Advanced Biosciences, La Tronche, France*

- 09:00 - 09:30 **Chemotherapy induces TME-dependent breast cancer lung metastasis chemoresistance**
Cédric Gaggioli - Institute for Research on Cancer and Aging, IRCAN, Nice, France
- 09:30 - 09:45 **Mammary adipocyte-derived IGFBP2 limits breast cancer invasion by disrupting IGF2 autocrine signalling**
James Conway - University of Turku, Turku, Finland
- 09:45 - 10:00 **Invadopodia-caveolae crosstalk in the control of breast cancer cell invasion**
Pedro Monteiro - Curie Institute, Paris, France
- 10:00 - 10:30 Coffee break
- 10:30 - 11:00 **Invadosomes: New players, new therapeutic opportunity**
Fred Bard - Marseille Cancer Research Centre, CRCM, Marseille, France
- 11:00 - 11:30 **Flash posters presentations Round 1**
- 12:00 - 13:30 Lunch & Break
- 13:30 - 15:45 **Poster session 1**

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SESSION 3 CANCER & INVASION

Session supported by la Société Française du Cancer



Moderator: **Michael Olson** - Ryerson University Toronto, Canada

15:50 - 16:00 **Presentation of the Société Française du Cancer**

Julie Pannequin - Member of the administration council
of the Société Française du Cancer

16:00 - 16:30 **Podosomes at the molecular scale:
Insights from in situ cryo-electron tomography**



Marion Jasnin - Max Planck Institute, Munich, Germany

16:30 - 16:45 **MALAT1 lncRNA Regulates cancer cell
extravasation and invadopodia biogenesis via cytoplasmic
assembly with MT1-MMP and RNA Binding Proteins HnRNPC/RALY**

Olivia Grafinger - Sunnybrook Research Institute, Toronto, Canada

16:45 - 17:00 **Tethered exosomes containing MT1-MMP contribute
to ECM degradation during breast cancer progression**

Roberta Palmulli - University of Cambridge, Cambridge, United Kingdom

17:00 - 17:30 **Coffee Break**

17:30 - 18:00 **The EMBO Keynote Lecture**



**Regulation of the invadopodia, MT1-MMP-dependent matrix
degradation program of cancer cells by mTOR**

Philippe Chavrier - Curie Institute, Paris, France

18:00 - 18:30 **Flash posters presentations Round 2**

18:30 - 20:00 **Poster session 2**

20:00 **Dinner**

21:00 - 23:00 **Poster session 3 & Networking**

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Thursday 6th October 2022

SESSION 4 IMMUNE SYSTEM

Moderator: Yolanda Calle-Patino - University of Roehampton, London, UK

- 09:00 - 09:30 **Adhesion-based migration of leukocytes in interstitial spaces**
Tim Lämmermann - Max Planck Institute, Freiburg, Germany
- 09:30 - 09:45 **Moesin inhibits osteoclastogenesis :
Implications in inflammatory conditions**
Ophélie Dufrancas - Université de Toulouse, Toulouse, France
- 09:45 - 10:15 **Flash posters presentations Round 3**
- 10:15 - 12:00 **Poster session 4 & Coffee break**
- 12:00 - 13:30 **Lunch & Break**
- 13:30 - 14:00 **The mechanical response of dendritic cells**
Ana-Maria Lennon-Duménil - Curie Institute, Paris, France
- 14:00 - 14:15 **Invadopodia drive tumor cell invasion
Into the lymphatic system promoting metastasis
To the lymph nodes and lungs**
Karla Williams - The University of British Columbia, Vancouver, Canada
- 14:45 - 20:00 **Discussion - Networking afternoon**
Including boat tour of the Etang de Thau and pétanque competition
- 20:00 **Gala Dinner and round tables with invited speakers**
- 21:00 - 23:00 **Networking and scientific Quizz**

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Friday 7th October 2022

SESSION 5 MECHANOBIOLOGY

Moderator: **Gregory Giannone** - Interdisciplinary Institute for Neuroscience, Bordeaux, France

09:00 - 09:30 **The Force is Within You: DNA probes to map and control molecular forces in integrin adhesions**
Khalid Salaita - Emory University, Atlanta, USA

09:30 - 10:00 **Roles of class I myosins in podosome formation**
Mira Krendel - Upstate Medical University, Syracuse, USA

10:00 - 10:15 **Analysis of monocyte cell tractions in 2.5D reveals mesoscale mechanics of podosomes during substrate-indenting cell protrusion**
Hendrik Schürmann - University Hospital Essen, Essen, Germany

10:15 - 10:30 **Mechanoregulation of vascular smooth muscle cell promote podosome formation in atherosclerosis**
Pamela Swiatlowska - Queen Mary University, London, United Kingdom

10:30 - 11:10 Coffee Break

SESSION 6 ADVANCED IMAGING OF INVADOSOMES

Moderator: **Renaud Poincloux** - Institute of Pharmacology and Structural Biology, Toulouse, France

11:10 - 11:40 **Intravital Microscopy reveals the cellular processes that drive tumor induction and progression**
Jacco van Rheenen - The Netherlands Cancer Institute, Amsterdam, Netherlands



11:40 - 12:10 **Deciphering the mechanobiology of actin and integrin regulators at the nanoscale**
Grégory Giannone - Interdisciplinary Institute for Neuroscience, Bordeaux, France

12:10 - 12:40 **Closing Remarks**

12:40 - 13:30 Final Lunch

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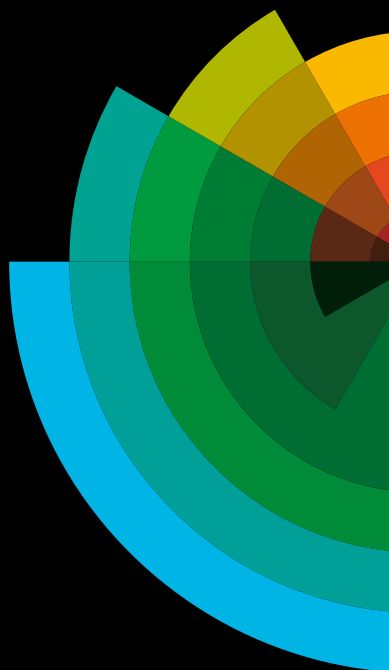
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