

Mechano-chemical signals in invasion (Invadosome 2019)

19th - 22nd June 2019

Day 1 (19th June 2019)

AFTERNOON SESSION: Session I Cytoskeletal dynamics I

12:00-16:00: Arrival and registration

16:00-16:15: Welcome and opening

16:15-16:45: Stefan Linder

The podosome cap: an actomyosin regulatory module

16:45-17:15: Michael Way

The differential role of Arp2/3 isoforms in invadopodia formation

17:15-17:30: Mira Krendel

Class I myosins regulate podosome dynamics and cell migration in macrophages

17:30-17:45: Stéphanie Kermorgant

A novel c-Met-SCRIB cooperation in enhancing invasion of breast cancer cells

17:45-18:30: Coffee

18:30-19:15: Keynote lecture: John Condeelis

Tumor cell invadopodia: Invasive protrusions that orchestrate dissemination, metastasis and resistance to chemotherapy

19:15 Welcome drinks

20:00: Dinner

Day 2 (20th June 2019)

MORNING SESSION: Session II: Cytoskeletal dynamics II

9:00-9:30: Danjiela Vignjevic

The dark side of the fibroblasts force

9:30-10:00: Anne Blangy

Microtubules and podosome patterning: importance for bone resorption by osteoclasts

10:00-10:15: Pasquale Cervero

LSP-1 regulates actin-isoform mediated actomyosin symmetry break and podosome mechanosensing in human primary macrophages

10:15-10:30: Hava Gil Henn

FAK Family Kinases: The Yin and Yang of Cancer Metastasis

10:30-10:45: Flash talks selected from posters

10:45-11:30: Coffee and poster viewing

11:30-12:00: Anna Akhmanova

Control of cell migration by dynamic microtubules

12:00-12:30: Sandrine Etienne-Manneville

Microtubules in mechanotransduction during cell migration.

12:30-12:45: Koen Vandendries

Septins as novel regulators of podosome actin dynamics

12:45-13:00: Flash talks selected from posters

13:15: Lunch

14:30-16:00: Poster session

AFTERNOON SESSION: Session III: Adhesion structure and dynamics

16:00-16:30: Benny Geiger

The mechanobiology of integrin adhesions family: similar mechanisms - variable geometry

16:30-17:00: Corinne Albiges-Rizo

Force tuning through regulation of clathrin-dependent integrin endocytosis

17:00-17:15: Marion Jasnin

Podosome actin filaments store elastic energy to produce nanoscale forces

17:15-17:30: Liisa M. Hirvonen

Investigating the structure and mechanics of podosomes by correlative STORM/PALM and atomic force microscopy

17:30-18:00: Coffee and poster viewing

18:00-18:30: Sara Courtneidge

The role of Tks5 in invadopodia formation and function *in vitro* and *in vivo*

18:30-18:45: Ester Martin-Villar

Podoplanin-CD44 interaction modulates invadopodia-mediated invasiveness of squamous carcinoma cells

18:45-19:00: Or-Yam Revach

Cross-talk between the receptor tyrosine kinases AXL and ERBB3 regulates invadopodia formation in melanoma cells

20.00: Dinner

21:00-22:30: Poster session and networking

Day 3 (21st June 2019)

MORNING SESSION: Session IV: Mechanobiology

9:00-9:30: Alessandra Cambi

Modular actin nano-architecture enables podosome protrusion and mechanosensing

9:30-10:00: Philippe Chavrier

Tumor invasion is mediated by MT1-MMP-based force-producing proteolytic contacts

10:00-10:15: Carine Rosse

Tuning cell contractility and vinculin localization at cell junctions is required for oncogenic basal cell extrusion

10:15-10:30: Hon Man Sit

Cofilin in mechanosensitive podosomes

10:30-10:45: Flash talks selected from posters

10:45-11:30: Coffee and poster viewing

11:30-12:00: Isabelle Maridonneau-Parini

Mechanisms and mechanics of macrophage migration

12:00-12:30: Martin Humphries

The response of the adhesion nexus to changes in extracellular rigidity

12:30-12:45: Daniel Lietha

Structure and force activation of focal adhesion signalling

12:45-13:00: Renaud Poincloux

Nanoscale architecture and mechanics of macrophage podosomes

13:15: Lunch

14:30-16:00: Poster session

AFTERNOON SESSION: Session V Mechanisms of tissue invasion

16:00-16:30: Laura Machesky

Mechanotransduction controls invasive behaviour through a metabolic switch in pancreatic cancer cells

16:30-17:00: Elisabeth Genot

Podosomes in endothelial cells, angiogenesis and beyond

17:00-17:15: Olivier Destaing

Collective extrusion of epithelial cells

17:15-17:30: Manon Ros

Extracellular collagen degradation requires disulfide bond reduction mediated by calnexin and ERp57

17:30-18:00: Coffee and poster viewing

18:00-18:30: Peter Friedl

MMP-independent single-cell and collective cancer cell invasion in vivo

18:30-18:45: Robert Herzog

A semi-automatic tool for analysis of podosomes and associated proteins

18:45-19:00: ROUND TABLE

20:00: Dinner

Day 4 (22nd June 2019)

MORNING SESSION: Session VI: Genomic and nuclear regulation in invasion

9:00-9:30: Jan Lammerding

Nuclear mechanobiology in cancer cell invasion

9:30-10:00: Ines Anton

Cytoskeletal regulators of transcription and cell invasion

10:00-10:15: Capucine HERAUD

New insights into p190RhoGAP regulation at invadosomes from the study of cancer-associated mutations

10:15-10:30: Frederic Saltel

Discoidin domain receptors (DDR): new impact players in cell migration, invasion and matrix degradation

10:30-11:15: Coffee and poster viewing

11:15-11:45: Adam Byron

Characterising functional links between the adhesome and the nucleus

11.45-12.15: Tito Panciera

Biology and regulation of the mechanotransducers YAP/TAZ

12:15-12:30: Jan Brábek

The interaction of p130Cas with PKN3 promotes malignant growth

12:30-12:45: Saverio Gentile

Potassium channel activity controls breast cancer metastasis by affecting β -catenin signaling

12:45: Final comments and meeting end