Barcelona BioMed Conference
Drosophila as a cancer model
April 8-10, 2019

Monday, April 8, 2019

8.30 Registration

9.00 Welcome by Francesc Posas (IRB Barcelona Director) and organizers

Session I

9.15 **Developmental cancer: where oncology meets embryology**
Jaume Mora, Sant Joan de Déu Barcelona Children's Hospital (Barcelona, Spain)

9.45 **The two faces of JNK in *Drosophila*: pro-apoptotic and pro-tumorigenic**
Ginés Morata, Centro de Biología Molecular, CSIC-UAM (Madrid, Spain)

10.15 - 11.00 ***Coffee break and poster session***

11.00 **Understanding genome instability of adult intestinal stem cells**
Allison Bardin, Institut Curie (Paris, France)

11.30 Short talk 1 **Collective cell migration and metastases induced by an epithelial to-mesenchymal transition in *Drosophila* intestinal tumors**
Andreu Casali, IRB Lleida (Lleida, Spain)

11.45 Short talk 2 **Cytoneme-mediated signaling essential for tumorigenesis**
Sol Fereres, University of California (San Francisco, CA, USA)

12.00 **Non-apoptotic Roles of Caspases for Proliferation and Cancer in *Drosophila***
Andreas Bergmann, University of Massachusetts Medical School (Worcester, MA, USA)

12.30 **Autophagy and Cancer: What Flies Tell Us**
Tor Erik Rusten, The Norwegian Radium Hospital, Oslo University Hospital (Montebello, Oslo, Norway)

13.00 – 15.00 ***Lunch (IEC courtyard)***

Session II

15.00 **Ablation of Arf1-mediated lipolysis pathway kills cancer stem cells and elicits anti-tumor responses in *Drosophila* and mice**
Steven X. Hou, NCI Center for Cancer Research (MD, USA)

15.30 Short talk 3 **Diet-enhanced *Drosophila* tumors induce muscle wasting as a nutrient-scavenging metabolic program**
Susumu Hirabayashi, MRC London Institute of Medical Sciences (London, UK)

15.45 **Selective killing of RAS-malignant tissues by exploiting oncogene-induced DNA damage**
Marco Milán, IRB Barcelona/ICREA (Barcelona, Spain)

16.15 - 17.00 ***Coffee break and poster session***

17.00 **Cell polarity tumour suppressors in signalling pathway regulation and tumourigenesis**
Helena Richardson, La Trobe University (Victoria, Australia)

17.30 Short talk 4 **Decoding nutrient sensing and metabolic rewiring in the Hipk tumor model**
Esther M. Verheyen, Simon Fraser University (Burnaby, Canada)

17.45 Short talk 5 **Deciphering the Molecular Networks that link Diet, Dietary Diseases and Cancer**
Linda M. Parsons, School of Medicine University of Tasmania (Hobart, Australia)

18.00 **Tumor progression via microRNA-mediated inhibition of cellular senescence**
Tatsushi Igaki, Kyoto University Graduate School of Biostudies (Kyoto, Japan)

18.30 ***End of session***

Tuesday, April 9, 2019

Session III

9.00 ***Drosophila* gut tumors and organ wasting**
Norbert Perrimon, Harvard Medical School (Boston, MA, USA)

9.30 **PRC1 Polycomb complex facilitates stage-specific enhancer-promoter contacts during *Drosophila* development**
Anne-Marie Martinez, University of Montpellier, Institute of Human Genetics – CNRS (Montpellier, France)

10.00 Short talk 6 **Application of single-cell RNA sequencing (Drop-seq) to dissect tissue heterogeneity in development and disease**
Maxim V Frolov, University of Illinois at Chicago (Chicago, USA)

10:15– 11.00 ***Coffee break and poster session***

11.00 **Modeling the genetic complexity of colorectal cancer in *Drosophila***
Erdem Bangi, Florida State University (FL, USA)

11.30 Short talk 7 **Active wingless vampirization by glioblastoma network leads to brain tumor growth and neurodegeneration**
Marta Portela, Instituto Cajal-CSIC (Madrid, Spain)

11.45 Short talk 8 **A systematic investigation of intratumor heterogeneity in a *Drosophila* tumor model through single-cell transcriptomic analysis**
Yan Yan, Hong Kong University of Science and Technology (Hong Kong, China)

12.00 **Cell competition and cancer**
Eduardo Moreno, Champalimaud Centre for the Unknown (Lisbon, Portugal)

12.30 **Sensing and Responding to Differences in Cell Fitness During Tissue Growth**
Laura A. Johnston, Columbia University Medical Center (New York, NY, USA)

13.00 – 15.00 ***Lunch (IEC courtyard)***

Session IV

15.00 **Immune escape of tumors relies on remote metabolic shift**
María Domínguez, Neuroscience Institute of Alicante, UMH-CSIC (San Juan de Alicante, Alicante, Spain)

15.30 Short talk 9 **MYC-induced super competition requires the SSF1/SSF2 ortholog *Peter Pan***
Norman Zielke, University of Helsinki (Helsinki, Finland)

15.45 **Cytokinesis failure, miRNAs, and tumor formation**
Héctor Herranz, University of Copenhagen (Copenhagen, Denmark)

16.15-17.00 ***Coffee break and poster session***

17.00 **Modeling brain tumors in *Drosophila*-putting an end to dedifferentiation**
Hongyan Wang, Duke-NUS Medical School (Singapore, Singapore)

17.30 Short talk 10 **Coordination between cell proliferation and apoptosis after DNA damage**
Carlos Estella, Centro de Biología Molecular Severo-Ochoa. CSIC (Madrid, Spain)

17.45 Short talk 11 **Non-autonomous stress responses in the host intestine function as a tumor-suppressive mechanism in *Drosophila***
Yu-ichiro Nakajima, Frontier Research Institute for Interdisciplinary Sciences, Tohoku University (Sendai, Japan)

18.00 **An integrated approach to cancer therapeutics**
Ross Cagan, Icahn School of Medicine at Mount Sinai (New York, NY, USA)

18.30 ***End of session***

20.30 ***Speakers dinner***
(*Restaurant els 4 Gats, Montsió, 3)*

Wednesday, April 10, 2019

Session V

9.00 **Asymmetric division of *Drosophila* neural stem cells in development and tumorigenesis**
Ana Carmena, Neuroscience Institute of Alicante, UMH-CSIC (San Juan de Alicante, Alicante, Spain)

9.30 Short talk 12 **The role of hydroxyproline in cancer-induced organismal death in *Drosophila melanogaster***
Lynna Yang, RIKEN Center for Biosystems Dynamics Research (Kobe, Japan)

9.45 **Deciphering the mechanisms of cell hierarchy within neuro-developmental tumors**
Cédric Maurange, IBDM, Aix-Marseille University, CNRS (Marseille, France)

10.15 - 11:00 ***Coffee break and poster session***

11.00 **Using *Drosophila* larval brain tumours to understand malignant and normal growth during development**
Cayetano González, IRB Barcelona/ICREA (Barcelona, Spain)

11.30 Short talk 13 **Cell-cell Interactions promoting Oncogenic Ras-mediated Tumor Overgrowth**
Chiswili Yves Chabu, University of Missouri (Columbia, Missouri, USA)

11.45 **A multidisciplinary approach to drug target discovery for brain tumors: from Drosophila glia to human glioblastoma**
Renee Read, Winship Cancer Institute, Emory University School of Medicine (Atlanta, GA, USA)

12.15 **A large-scale resource for tissue-specific CRISPR mutagenesis in *Drosophila***
Michael Boutros, German Cancer Research Center (DKFZ) and Heidelberg University (Heidelberg, Germany)

12.45 ***Closing remarks & end of conference***