Barcelona BioMed Conference
Modelling cancer in Drosophila: September 14-16, 2009

IRB BARCELONA
INSTITUTE FOR RESEARCH IN BIOMEDICINE

Programme

Monday, September 14, 2009

8.00 Registration
9.00 Welcome by Joan J Guinovart, IRB Barcelona Director

Session 1 - 9:15-10:15
Morphogens, Signalling Pathways in Organ Growth control

9:15-9:45 - **Marcos González** University of Geneva (Geneva, Switzerland)
Spatial *versus* temporal Dpp computation during proliferation control

9:45-10:15 - **Pierre Leopold** Institute of Developmental Biology and Cancer (Nice, France)
Growth during non-feeding states in *Drosophila*

10.15 – 11.00 Coffee break and poster session

Session II - 11:00-13:00
Signalling Pathways, Apico-Basal Polarity in Organ Growth Control

11:00-11:30 - **Nick Tapon** London Research Institute (London, UK)
Growth control by the Hippo signalling pathway

11:30-11:45 - **Georg Halder** M. D. Anderson Cancer Center (Houston, Texas, USA)
The Hippo tumor suppressor pathway regulates apical domain size in parallel to tissue growth

11:45 – 12:15 - **Nicola Grzeschik** Peter MacCallum Cancer Centre (Melbourne, Australia)
Lgl Acts Antagonistically to Crumbs and aPKC to Regulate the Salvador/Warts/Hippo Pathway

12:15-12:45 - **Florence Janody** Instituto Gulbenkian de Ciência (Oeiras, Portugal)
Actin Capping Protein promotes activation of the Hippo signalling pathway

12:45- 13:00 - **Yoichiro Tamori** Florida State University (Tallahassee, FL, USA)
Involvement of Lgl and Mahjong in Cell Competition

13.00 – 15.00 Lunch (FrescCo, C/ Carme, 16) and Posters

Session III 15:00-16:15
Cell Polarity and Organ Growth Control

15:00-15:30 - **Andreas Wodarz** Göttinger Zentrum für Molekulare Biowissenschaften (Göttingen, Germany)
Control of apical-basal cell polarity in *Drosophila* by antagonistic kinases and phosphatases

15:30-15:45 - **Franck Pichaud** University College London, UK
DaPKC-dependent apical exclusion of Bazooka is required to establish the sub-apical membrane domain and zonula adherens in polarized cells

15:45–16:15- **Daniel St Johnston** The Gurdon Institute (Cambridge, UK)
Unexpected links between energy homeostasis, cell polarity and tumorigenesis

16.15 – 16.55 Coffee break and poster session

Session IV 16:55-18:25
Signalling Pathways in Cooperative Tumorigenesis Models

16:55-17:25 - **Maria Dominguez** Instituto de Neurociencias de Alicante (Alicante, Spain)
Mechanisms behind cancer metastasis

17:25-17:40 **Anne-Marie Martinez** Institut de Génétique Humaine, CNRS. (Montpellier, France)
Polyhomeotic has a tumour suppressor activity mediated by repression of *Notch* signalling

17:40-18:10 **Dirk Bohmann** University of Rochester (Rochester, NY, USA)
Regulatory interactions between FGF and MMPs control branching morphogenesis and invasive growth

18:10-18:25 **Marcus Vidal** Beatson Institute for Cancer Research (Glasgow UK)
Oncogenic Ras diverts a host TNF tumor suppressor activity into tumor promoter

Tuesday, September 15, 2009

Session V 9:00-10:15
Cell Competition and Compensatory Proliferation

9:00-9:30 - **Nick Baker** Albert Einstein College of Medicine (Bronx, NY, USA)
Mechanisms of Cell Competition in Drosophila

9:30-10:00 - **Iswar Hariharan** University of California (Berkeley, CA, USA)
Growth after tissue injury: Imaginal disc regeneration in Drosophila

10:00-10:15 **Andreas Bergmann** MD Anderson Cancer Center (Houston, TX, USA)
Apoptosis-induced compensatory proliferation: Life after Death

10.15 – 11.00 Coffee break and poster session

Session VI 11:00-13:00
Cell competition and Cooperative Tumorigenesis

11:00-11:30 - **Laura Johnston** Columbia University (New York, NY, USA)
Competitive interactions during growth in *Drosophila*

11:30-12:00 **Gines Morata** Centro de Biologia Molecular Severa Ochoa (Madrid, Spain)
Tumorigenic potential of *lgl* cells

12:00-12:30 - **Pradip Sinha** Indian Institute of Technology (Kanpur, India)
Modeling epithelial cancer in genetic mosaics of *Drosophila*: novel insights into the early events

12:30-13:00 - **David Bilder** University of California (Berkeley, CA, USA)
Epigenetic control of imaginal disc growth by Polycomb proteins

13.00 – 15.00 Lunch (Restaurant FrescCo, C/ Carme, 16) and Posters

Session VII 15:00-16:15
Models of Invasion/Metastasis/Wound Healing

15:00-15:30 - **Denise Montell** Johns Hopkins University (Baltimore, MD, USA)
Ovarian follicle cell models of tumor growth and cell invasion

15:30-16:00 - **Pernille Rorth** Temasek Life Sciences Laboratory Limited (Singapore)
Guided migration of a cell group

16:00-16:15 – **Florenci Serras** University of Barcelona (Barcelona, Spain)
Cell Death-Induced Regeneration in Wing Imaginal Discs

16.15 – 16.55 Coffee break and poster session

Session VIII 16:55-18:25
Asymmetric Cell Division and Tumorigenesis

16:55-17:25 - **Yukiko M. Yamashita** University of Michigan Life Sciences Institute (Ann Arbor, MI, USA)
Regulation of asymmetric stem cell division in the Drosophila testis

17:25-17:55 - **Chris Doe** University of Oregon (Eugene, OR, USA)
Type I neuroblast self-renewal: spindle orientation and polarity proteins

17:55-18:25 - **Hongyan Wang** Duke-NUS Graduate Medical School Singapore (Singapore)
Brain tumor suppressors and neural stem cell self-renewal in *Drosophila*

20.30 – open end: Speakers dinner

Wednesday, September 16, 2009

Session IX 9:00-10:15
Stem Cell Proliferation and Signalling pathways

9:00-9:30 – **Bruce Edgar** Cancer Research Center (Heidelberg, Germany)
Drosophila adult intestinal stem cell proliferation and the maintenance of intestinal homeostasis

9:30-10:00 – **Jens Januschke** Institute for Research in Biomedicine (Barcelona, Spain)
Polarity orientation memory in neuroblasts

10:00-10:15 - **Kai Chen Chang** Temasek Life Sciences Laboratory (Singapore)
A zinc-finger protein that inhibits excess self-renewal of *Drosophila* neural stem cells

10.15 – 11.00 Coffee break and poster session

Session X 11:00-13:00
Modelling Human Cancer - Genetic and Small Molecule Inhibitor Screens

11:00-11:30 - **Ross Cagan** Mount Sinai School of Medicine (New York, NY, USA)
Fly Models of Solid Tumors

11:30-12:00 - **Tony Brumby** Peter MacCallum Cancer Centre (Melbourne, Australia)
Cooperating pathways that promote neoplastic overgrowth in *Drosophila*

12:00 – 12:30 - **Renee D. Read** The Salk Institute for Biological Studies (San Diego, CA, USA)
Manipulating Drosophila glia to model human brain cancer

12:30-13:00 - **Tin Tin Su** University of Colorado (Boulder, CO, USA)
A *Drosophila* screen for combination therapies against human cancers

13.00 Concluding remarks