Research Programmes

CELL AND DEVELOPMENTAL BIOLOGY

Cayetano González: Cell Division

Group Members

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Highlights

- In *Drosophila* neuroblasts, asymmetric division is largely driven by cortical polarity.
- Upon asymmetric mitosis in *Drosophila* neuroblasts, the mother centrosome is inherited by the differentiating daughter cell.
- The stemness properties of *Drosophila* neuroblasts are not linked to mother centrosome inheritance.

Publications

- **Drosophila neuroblasts retain the daughter centrosome**
  Januschke J, Llamazares S, Reina J and Gonzalez C.
  Nat Commun **2**, 243 (2011)
- **An ana2/ctp/mud complex regulates spindle orientation in Drosophila neuroblasts**
  Wang C, Li S, Januschke J, Rossi F, Izumi Y, Garcia-Alvarez G, Gwee SS, Soon SB, Sidhu HK, Yu F, Matsuzaki F, Gonzalez C, Wang H.
  Dev Cell, **21**, 520 (2011)

PhD Theses

- A link between loss of developmentally controlled gene silencing and tumour growth. Ana Janic, Universitat de Barcelona (2011). Thesis director: Cayetano González. Honors: Summa Cum Laude

Research projects

- Grupo de división celular, Grups de Recerca reconeguts per la Generalitat de Catalunya 2009-2013 (2009 SGR 938). Agency for Administration of University and Research Grants (AGAUR). Principal investigator: Cayetano González
- Nuevas estrategias basadas en biomarcadores para la detección del cáncer, su pronóstico, la predicción de respuesta y el desarrollo de nuevos tratamientos. CEN-20091016 CENIT Centro de Desarrollo tecnológico Industrial (CDTI) . Principal investigator: Cayetano González
- Stem cell polarity, genomic instability and tumor growth in Drosophila. Proyectos Investigación fundamental (BFU2009-07975). Spanish Ministry of Science and Innovation (MICINN), 2010-2012. Principal investigator: Cayetano González
- Hacia la comprensión estructural y funcional del centrosoma. CENTROSOME 3D CSD2006-00023 Consolider Spanish Ministry of Science and Innovation (MICINN) 2006-2011. Principal investigator: Cayetano González

Collaborations

- *Centrosoma 3D*, Luís Serrano Pubull, Center for Genomic Regulation (Barcelona, Spain)
- *Neuroblast polarity and self-renewal*, Dr. Hongyan Wang, National University of Singapore and NUS Graduate School for Integrative Sciences and Engineering (Singapore, Singapore)
- *New strategies for cancer detection and prognosis*, GP Pharm (Gavà (Barcelona), Spain)

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