

# IRB BARCELONA 2011 ANNUAL REPORT

## Research Programmes

### CELL AND DEVELOPMENTAL BIOLOGY

#### Ferran Azorín: Chromatin Structure and Function



#### Group Members

##### Group Leader

Ferran Azorín (CSIC)

##### Research Associates

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##### Lab Technician

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#### Highlights

- We have unveiled the essential function of linker histone H1 in the maintenance of genome stability.
- We have determined the pattern of post-translational modifications of *Drosophila* linker histone H1.
- We have revealed the role of dKDM5/LID in the regulation of H3K4me3 at the transcriptional start site of developmental genes and its contribution to transcription.

#### Publications

- Moreno-Moreno O, Medina-Giró S, Torras-Llort M and Azorín F.  
**The F box protein partner of paired regulates stability of *Drosophila* centromeric histone H3, CenH3(CID)**  
Curr Biol, **21**, 1488-93 (2011)
- Batlle M, Marsellach FX, Huertas D and Azorín F.  
***Drosophila* vigilin, DDP1, localises to the cytoplasm and associates to the rough endoplasmic reticulum**  
Biochim Biophys Acta, **1809**, 46-55 (2011)

#### PhD Theses

- *Identificació d'isoformes i modificacions posttraduccionals del factor GAGA de Drosophila melanogaster. (Identificación de isoformas y modificaciones posttraduccionales del factor GAGA de Drosophila melanogaster).* Aran Guiu, Xavier, University of Barcelona (2010). Thesis director: Jordi Bernués. Honors: Cum Laude

#### Research projects

- Study of the Determinants of Heterochromatin Formation and Maintenance (HETCHROMPROJECT) 268400 FP7- People- Marie Curie Action: "Reintegration Grants" European Commission (EC) 2011-2015. Principal investigator: Anne Daulny
- Caracterización biológica de inhibidores de metil transferasas PET2007-0319-02 PETRI Spanish Ministry of Science and Innovation (MICINN) 2009-2011. Principal investigator: Ferran Azorín
- Epigenética: Mecanismos y enfermedad CSD2006-49 Consolider Spanish Ministry of Science and Innovation (MICINN) 2006-2010. Principal investigator: Ferran Azorín

- REGULACION EPIGENETICA DE LA ESTRUCTURA Y FUNCION DE LA CROMATINA BFU2009-07111/BMC Proyectos Investigación Fundamental Spanish Ministry of Science and Innovation (MICINN) 2010-2012. Principal investigator: Ferran Azorín

## Collaborations

- *ChIP-seq analysis of histone modifications and chromatin binding proteins*, David Rossell, IRB BARCELONA (Barcelona, Spain)
- *Post-translational modifications of histones*, Ernest Giralt, IRB BARCELONA (Barcelona, Spain)



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