



Simposio Internacional / *International Symposium:*

Competición celular, apoptosis y cáncer
Cell competition, apoptosis and cancer

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CV

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My research career has focused on the genetic regulation of embryonic development and tissue regeneration/homeostasis. During my PhD (CIB-CSIC) I was trained in *Drosophila* genetics, and during the postdoctoral period (MPI-Germany) I majored in vertebrate development and the use embryonic stem cell-based mouse genetics methodology. In 1996 I started my independent group, dedicated to understanding the molecular and cellular processes involved in organogenesis of the limb and heart. Our findings have helped to establish new concepts on how vertebrate limbs develop and are relevant for understanding organ regeneration. A large part of our work on organogenesis has relied on the study of genes encoding homeodomain transcription factors, area in which we have contributed transgenic and molecular resources. In parallel, we have made contributions to understanding the conservation of cell death pathways in metazoans and provided the first evidence of endogenous cell competition for survival in vertebrates. The development of transgenic and imaging tools has also been a constant effort of our group and led to the establishment of methods for cellular mosaic analyses and new imaging approaches. Currently, we focus our efforts in understanding various aspects of heart and limb development and in identifying the mechanisms and physiological relevance of cell competition in vertebrates