

## Short CV: Sebastian Amigorena

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Sebastian AMIGORENA was born in Buenos Aires in 1960. He studied biology and biochemistry in Paris (Université Paris 7), and obtained his PhD in 1990. He spent a three-year post-doc at Yale Medical School (New Haven, in Ira Mellman's lab). Back to Paris in 1995, he became team leader at Institut Curie (Paris). He is now director of the INSERM lab 932 (Immunity and Cancer) and head of the Immunology and Immunotherapy department at Institut Curie. Sebastian AMIGORENA was elected to the French Academie des Sciences in 2005. He received several awards, including the Médaille d'Argent of CNRS, the Liliane Bettencourt award for life sciences and the ARC Leopold Griffuel award.

The research of Sebastian AMIGORENA lies at the border between cell biology, immunology and cancer. He made critical contributions to our understanding of the molecular and cell biological mechanisms of antigen presentation to T lymphocytes. As a student and post doc, he discovered the molecular motifs in cytosolic tails of receptors for IgG that control inhibition of activation (the ITIM motifs) and internalization of antigens. His team defined the endocytic routes and the intracellular compartments involved in MHC class I- and class II-restricted antigen presentation. They also described the molecular mechanisms of phagosome pH regulation in dendritic cells, and analyse the mechanisms of recruitment of endoplasmic reticulum-resident proteins to phagosomes. They described functionally and characterized biochemically the exosomes produced by dendritic cells and contributed to the first phase clinical trials using exosomes as vaccination vectors. Sebastian Amigorena's team also used two-photon intravital microscopy to analyze the interactions between dendritic cells and T lymphocytes, and to characterize the role of regulatory T cells in the regulation of this process. More recently, the Amigorena team analyzed phenotypically and functionally human dendritic cells in human secondary lymphoid organs from cancer patients, including lymph nodes, tonsils and inflammatory environments.