

CAREER DEVELOPMENT AWARDEES



Title	Giovanni Armenise-Harvard Career Development Awardee
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Laurea	<i>Medical Doctor degree obtained at the University "Federico II" of Naples, Italy- July 1993</i>
Ph.D	<i>Naples, University Federico II, Naples, Italy- April 1999</i>
Postdoc	<i>1997-2001- Institute of Genetics, University of Cologne, Germany- 2001-2006- The CBR Institute for Biomedical Research, Harvard Medical School</i>
Previous work experience	<i>As a PhD student I studied the role of the imprinted genes Igf2 and H19 in cancer pathogenesis using both mouse models and human primary tumor specimens. As a postdoctoral fellow first and junior investigator later on, I developed a Cre-loxP based inducible system to study gene function in mice specifically in germinal center B-lymphocytes and in their direct progeny, the high-affinity antibody-secreting plasma cells and the memory B cells. I also generated two mouse mutants expressing in a Cre-dependent manner the Epstein-Barr Virus proteins LMP1 and LMP2A to determine their contribution to the transformation of germinal center B cells as seen in Hodgkin's lymphoma pathogenesis.</i>
Association memberships	

Research Interests	<i>We are interested in understanding the molecular mechanisms responsible for the development and transformation of mature B-lymphocytes, with a particular emphasis given to germinal center B cells. Using conditional gene targeting in mice, we aim to identify the genetic determinants that control the establishment of the pool of mature naïve B cells and their differentiation into high-affinity memory B cells and antibody-secreting plasma cells during the germinal center reaction. We are also interested to analyze in existing mouse models of germinal center B-cell-derived Hodgkin and non-Hodgkin B-cell lymphomas, and in additional ones currently generated in our laboratory, the function of genes that participate to lymphoma initiation, progression and maintenance.</i>
Selected Publications	<i>Casola S Control of peripheral B-cell development Curr Opin Immunol. 2007. In press Casola S and Rajewsky K. B cell recruitment and selection in mouse GALT germinal centers. Curr Top Microbiol Immunol. 2006.; 308:155-171 Klein U, Casola S., Cattoretti G, Shen Q, Lia M, Mo T, Ludwig T, Rajewsky K and Dalla-Favera R. 2006. Transcription factor IRF4 controls plasma cell differentiation and class-switch recombination. Nat</i>

	<p><i>Immunol.</i> 2006; 7(7):773-82.</p> <p>Casola S, Cattoretti G, Uyttersprot N, Koralov SB, Segal J, Hao Z, Waisman A, Egert A, Ghitza D and Rajewsky K. Tracking germinal center B cells expressing germ-line immunoglobulin [gamma]1 transcripts by conditional gene targeting. <i>Proc Natl Acad Sci U S A.</i> 2006; 103(19): 7396-401.</p> <p>Novobrantseva TI, Majeau GR, Amatucci A, Kogan S, Brenner I, Casola S, Shlomchik MJ, Kotliansky V, Hochman PS and Ibraghimov A. Attenuated liver fibrosis in the absence of B cells. <i>J Clin Invest.</i> 2005; 115 (11):3072-82.</p> <p>Sasaki Y, Casola S., Kutok JL, Rajewsky K and Schmidt-Supprian M. BAFF-R-dependent and -independent roles in B cell physiology. <i>J Immunol.</i> 2004; 173(4),2245-52.</p> <p>Schmidt-Supprian M, Tian J, Ji H, Terhorst C, Bhan AK, Grant EP, Pasparakis M, Casola S., Coyle AJ and Rajewsky K. IKK2-deficiency in T cells leads to defects in priming, B cell help, germinal center reactions and homeostatic expansion. <i>J Immunol.</i> 2004; 173(3),1612-19.</p> <p>Casola S. Conditional gene mutagenesis in B lineage cells. <i>Methods Mol Biol. Humana Press</i> 2004; 271, 91-109.</p> <p>Casola S, Otipoby KL, Alimzhanov M, Humme S, Uyttersprot N, Kutok JL, Carroll MC and Rajewsky K. B cell receptor signal strength determines B cell fate. <i>Nat Immunol.</i> 2004; 5(3), 317-27.</p>
<p>Laboratory Members</p>	<p><i>Federica Zanardi- Ph.D. students</i> <i>Marieta Caganova-Ph.D. student</i> <i>Serena Bologna-Master thesis student</i></p>