

Brief Bio

Eleni Katsantoni- Investigator D, Biomedical Research Foundation, Academy of Athens (BRFAA)

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Eleni Katsantoni received her degree in Biology from the University of Athens, Greece, Master of Science in Medical Genetics from the University of Newcastle, UK and PhD in Molecular Biology and Biomedicine from the University of Crete, Greece. Her PhD research (Molecular Biology Laboratory, Medical School, University of Crete) focused on investigation of the molecular mechanisms of globin genes transcriptional regulation and hemoglobin switching, analysing the role of cis acting elements of the beta globin gene cluster. Her work identified an enhancer element, capable of altering the developmental pattern of expression of A-gamma globin gene, which was later successfully used in gene therapy vectors. She also analysed the role of silencer elements capable of altering the developmental pattern of expression of A-gamma globin gene. During her PhD she was awarded 2 short term EMBO fellowships to visit the Department of Cell biology and Genetics, Erasmus Medical Center, Rotterdam, Netherlands. For the period 1999-2005, Katsantoni worked in the Department of Cell biology and Genetics, Erasmus Medical Center, Rotterdam, Netherlands, initially as a visiting PhD student and then as a postdoctoral fellow, funded by a Marie Curie post-doctoral fellowship (EU) and by Erasmus MC. Her post-doctoral work focused on understanding the role of erythropoietic transcription factors via characterization of transcription factor complexes and target genes, implicated in erythroid differentiation. She developed inducible systems in transgenic mice to analyse transcription factors role and bioinformatics tools for analysis of target genes networks. In 2005 Katsantoni returned in Greece, supported by a Marie Curie European Reintegration Grant (EU) and since then is working in the Basic Research Center of BRFAA. Her research focuses on mechanisms of transcriptional regulation and the role of transcription factors in this process, stress related responses and erythropoiesis. Her projects are funded from EU (FP6, FP7), Research Promotion Foundation (Cyprus), General Secretariat for Research & Development and Ministry of Education (Greece).

Selected Publications

Nanou A, Toumpeki C, Lavigne MD, Lazou V, Demmers J, Papparountas T, Thanos D, **Katsantoni E**. The dual role of LSD1 and HDAC3 in STAT5-dependent transcription is determined by protein interactions, binding affinities, motifs and genomic positions. *Nucleic Acids Res.* 2017 Jan 9;45(1):142-154. doi: 10.1093/nar/gkw832. Epub 2016 Sep 19.

Theodorou M, Speletas M, Mamara A, Papachristopoulou G, Lazou V, Scorilas A, **Katsantoni E**. Identification of a STAT5 target gene, Dpf3, provides novel insights in chronic lymphocytic leukemia. *PLoS One.* 2013 Oct 14;8(10):e76155.

E. Katsantoni, Protein complexes and target genes identification by in vivo biotinylation: The STAT5 paradigm. *Sci. Signal.* 5, pt13 (2012).

Gazouli M, **Katsantoni E** et al. Persistent fetal gamma-globin expression in adult transgenic mice following deletion of two silencer elements located 3' to the human Agamma-globin gene. *Mol Med.* 2009 Nov-Dec;15 (11-12):415-24.

Katsantoni EZ et al. Ubiquitous expression of the rTA2S-M2 inducible system in transgenic mice driven by the human hnRNPA2B1/CBX3 CpGisland. *BMC Dev Biol.* 2007 Sep 27;7:108.

Horsman S, Moorhouse MJ, de Jager VC, van der Spek P, Grosveld F, Strouboulis J, **Katsantoni EZ**. TF Target Mapper: a BLAST search tool for the identification of Transcription Factor target genes. *BMC Bioinformatics*.2006 Mar 8;7:120

Katsantoni EZ et al. An embryonic-specific repressor element located 3' to the Agamma-globin gene influences transcription of the human beta-globin locus in transgenic mice. *ExpHematol*. 2004 Feb;32(2):224-33.

Katsantoni EZ, et al. Persistent gamma-globin expression in adult transgenic mice is mediated by HPFH-2, HPFH-3, and HPFH-6 breakpoint sequences. *Blood*. 2003 Nov 1;102(9):3412-9.

de Boer E, Rodriguez P, Bonte E, Krijgsveld J, **Katsantoni E** et al. Efficient biotinylation and single-step purification of tagged transcription factors in mammalian cells and transgenic mice. *Proc Natl AcadSci U S A*.2003 Jun 24;100(13):7480-5.