



## **Ioannis Zaganas, MD/PhD**

Assistant Professor of Neurology  
School of Medicine / Department of Neurology  
University of Crete  
Email: [zaganas@uoc.gr](mailto:zaganas@uoc.gr)  
Tel: +302810394643

### **Education**

1991-1997	University of Crete, Medical School (MD Degree)
1999-2005	PhD, Medical School, University of Crete, Greece
2004-2005	Postdoctoral Fellow, Mount Sinai School of Medicine, New York, USA
2005-2008	Resident, Neurology Department, University Hospital of Heraklion, Crete, Greece

### **Research Interests**

The focus of my research is on the genetic basis and the molecular mechanisms of neurodegeneration, especially in relation to Alzheimer's disease and other dementias. I have also focused on the genetic basis of rare neurogenetic disorders.

Specifically, I am interested in:

- Understanding the functional properties and role of glutamate dehydrogenase, a key enzyme in glutamate metabolism and glutamate-induced neurodegeneration
- Dissecting the role of genetic factors, as found using whole exome sequencing and other genetic analysis strategies, in the pathophysiology of Alzheimer's disease and other dementias, as well as other neural and non-neural phenotypes
- Studying the role of environmental factors on the onset and progression of dementia and other neurological disorders
- Establishing procedures for the use of whole exome sequencing and other next generation sequencing techniques in the diagnostic investigation of neurogenetic diseases

### **Selected Funding**

- "Next Generation Sequencing in patients with neurological and other disorders" (Code 4106, University of Crete).
- "Basic, epidemiological, genetic and clinical research in neurological disorders" (Code 4313, University of Crete).
- "MDND-Mitochondrial dysfunction in neurodegenerative diseases" (Code 377226, European Union/European Social Fund and Greek national funds, 2013-2015, Co-Investigator).
- "MNSAD-Multidisciplinary network for the study of Alzheimer's Disease" (Code 377299, European Union/European Social Fund and Greek national funds, 2013-2015, Co-Investigator).

### **Selected Publications**

- Plaitakis A, **Zaganas I**. Regulation of Human Glutamate Dehydrogenases: Implications for Glutamate, Ammonia and Energy Metabolism in Brain. *J Neurosci Res* 66: 899-908, 2001.
- Zaganas I**, Plaitakis A. Single amino acid substitution (G456A) in the vicinity of the GTP binding domain of human housekeeping glutamate dehydrogenase markedly attenuates GTP inhibition and abolishes the cooperative behaviour of the enzyme. *J Biol Chem* 277: 26422-28, 2002.
- Zaganas I**, Halpin AP, Oleinik A, Alegakis A, Kotzamani D, Zafirios S, Chlapoutaki C, Tsimoulis D, Giannakoudakis E, Chochlidakis N, Ntailiani A, Valatsou C, Papadaki E, Vakis A, Furie KL, Greenberg SM, Plaitakis A. A comparison of acute hemorrhagic stroke outcomes in 2 populations: the Crete-Boston study. *Stroke* 42: 3640-2, 2011.
- Zaganas I**, Kapetanaki S, Mastorodemos V, Kanavouras K, Colosio C, Wilks MF, Tsatsakis AM. Linking pesticide exposure and dementia: What is the evidence? *Toxicology* 307:3-11, 2013
- Zaganas I**, Simos P, Basta M, Kapetanaki S, Panagiotakis S, Koutentaki I, Fountoulakis N, Bertsias A, Duijker G, Tziraki C, Scarmeas N, Plaitakis A, Boumpas D, Lionis C, Vgontzas A. The Cretan Aging Cohort: cohort description and burden of dementia and mild cognitive impairment. *Am J Alzheimer's Dis Other Demen* 34: 23-33, 2019.