Curriculum Vitae

Education:

- **PhD:** 2004, Université Joseph Fourier, Institut de Biologie Structurale, Grenoble-France, PhD de Biologie Structurale et Nanobiologie.
- **M.Sc.:** 2001, Université Joseph Fourier, Institut de Biologie Structurale, Grenoble-France, DEA de Biologie Structurale et Fonctionnelle.
- **B.S Chemistry:** 2000, National and Kapodistrian University of Athens, Department of Chemistry, Greece.

Training:

- HERCULES (The Higher European Research Course for Users of Large Experimental Systems), Grenoble, France.
- **FENS**-NEUROTRAIN (Neuroscience Training in Europe). "Neuronal plasticity and neurodegenerative disorders: Dysfunction and treatment", Innsbruck, Austria.
- 2nd Kemali-**IBRO** Mediterranean School of Neuroscience. "Invertebrate Neurobiology, Neuroethology and Plasticity", Naples, Italy**.**
- 10th **ISN** Advanced school of Neurochemistry. "Molecular Basis of Higher Cognitive Functions", Delphi, Greece.

Positions and Employment

2017 Stavros Niarchos Associate Researcher BSRC "Alexander Fleming."

2006-2016: Post-doctoral Researcher, BSRC "Alexander Fleming".

2005 Visiting Postdoctoral Scientist, Biomedical Electron Microscopy Facility MIT Boston, USA.

2004-2006 Temporary lecturer position (Π.Δ. 407), University of Crete, Department of Materials Science and Technology.

PERSONAL STATEMENT:

My scientific interests were always centered on diseases of conformation, where a particular soluble innocuous protein transforms and aggregates into an insoluble fibrillar structure, which deposits in extracellular or intracellular spaces of specific organs. During my Master's and PhD I used the fibre protein of adenovirus as a simplified model system for the study of folding, assembly, and registration of β-type structures both in native and in amyloid contexts. Amyloid fibrils are found as deposits of insoluble proteinaceous aggregates in patients with a range of diseases such as systematic amyloidoses, spongiform encephalopathies and Alzheimer's disease. My research was focused on the understanding of how natural β-fibrous proteins avoid amyloid formation in order to provide further insight on amyloid inhibition strategies. I obtained my PhD Degree in September 2004 and moved to the University of Crete where I got a temporary lecturer position in the Department of Materials Science and Technology. In the summer 2005 I joined the lab of Pr. Jonathan King at MIT as a visiting scientist to study the *in vitro* polymerization into amyloid fibrils of Human γD crystallin, a protein involved in cataract formation. Armed with a strong *in vitro* background in the study of protein aggregates (Electron Microscopy, Infrared Spectroscopy, X-ray fibre Diffraction) and seeking a biomedical application for my expertise, I focused in the field of neurodegenerative diseases because it met my scientific goals. Aberrant protein processing and accumulation are considered to be the culprits of many

neurodegenerative diseases with agonizing symptoms such as Tauopathies and various polyglutamine diseases. The *in vivo* approach had always been a challenge for me and Drosophila caught my attention as a valuable tool for investigating the molecular mechanisms of neurodegenerative diseases due to its highly evolved nervous system, which is well-characterized and highly accessible. In 2006 I joined the lab of Dr Efthimios Skoulakis to study the biochemical alterations on Tau (i.e phosphorylation, metal binding) that result in toxicity and dysfunction, using the Drosophila adult brain as a model. Currently, I am trying to probe molecular interactions of Tau protein that are important in preventing or enhancing its deleterious effects *via* a proteomic approach. In agreement with my scientific background, I am particularly interested in the molecular mechanisms of Tau aggregation. Tau-linked neurodegenerative diseases is the research field to which I am committed, and my work aims to address the biology and pharmaceutical amelioration of these devastating diseases.