

RESEARCH SCOPE AND EXPERTISE

I am a research fellow at the Department of Neurology (Tzartos' group). During the last years my research interest focuses on in depth understanding of Myasthenia Gravis (MG), Neuromyelitis Optica (NMO) and other autoantibody depended neuroimmune diseases, with one of the main aim being the development of novel assays for their diagnosis and the study of the autoantibody pathogenicity. In the past, I worked on the development of a specific therapeutic approach in MG. Since the main autoantigen (muscle type nicotinic acetylcholine receptor AChR) in this prototype neuroimmune disease is well characterized we intended to develop a column with the immobilized antigen, to be used in ex vivo clearance of patients' plasma. In addition, I worked with some of the neuronal type AChRs, and especially with the wild type extracellular domains of the subunits and several mutants in order to find a form with biochemical properties near to that of the native receptors. As a post-doctoral fellow I worked on signal transduction pathways by which neurotrophic factors influence differentiation, survival and axonal growth of neurons.

PROJECTS

- Development of novel and sensitive assays to be used for the diagnosis of autoimmune neurological diseases
- Development of an antigen specific therapy for Myasthenia Gravis
- Expression of recombinant human membrane proteins and design of mutated forms appropriate for biochemical and crystallization studies
- Studies on antiapoptotic factors in motoneurons
- Studies on regulation of the mouse DNA-Replication

PROFESSIONAL AND RESEARCH EXPERIENCE

- 1998 –2001: Research Assistant/PhD Student at the Biochemistry Institute, University of Wuerzburg, Germany
- 2001-2003: Post-doctoral Research Associate at the Clinical Neurobiology Institute, University of Wuerzburg, Germany
- 2004-present : Research Fellow at the Hellenic Pasteur Institute, Department of Neurology, Laboratory of Molecular Neurobiology and Immunology

EDUCATION

- 1992-1994: B.Sc. in Biology, University of Wuerzburg, Germany
- 1994-1997: M.Sc. in Biology (Biochemistry, Immunology-Virology, Cell and Developmental Biology), University of Wuerzburg, Germany
- 1998-2001: PhD (Dr. rer. nat.) in Biochemistry, University of Wuerzburg, Germany

SCHOLARSHIP AND AWARDS

- 1997 Scholarship holder of the "Akademische Auslandsamt", Wuerzburg, Germany
- 1998 Scholarship holder of the "Graduiertenkolleg": Regulation of Cell Growth, Germany
- 2007 Travel Scholarship for attending the 11th International Conference on Myasthenia Gravis and Related Disorders, Chicago
- 2012 Travel Scholarship for attending the 12th International Conference on Myasthenia Gravis and Related Disorders, New York

PUBLICATIONS

- Hong Y, Skeie GO, Zisimopoulou P, Karagiorgou K, Tzartos SJ, Gao X, Yue YX, Romi F, Zhang X, Li HF, Gilhus NE. Juvenile-onset myasthenia gravis: autoantibody status, clinical characteristics and genetic polymorphisms. *J Neurol*. 2017 Mar 31. doi: 10.1007/s00415-017-8478-z. [Epub ahead of print]
- Kruger JM, Karussis D, Zisimopoulou P, Petrou P. Low-Density Lipoprotein Receptor-Related Protein 4-Positive Myasthenia Gravis in a Double-Seronegative, Electromyography-Negative Patient. *J Neuroophthalmol*. 2017 Mar 27. doi: 10.1097/WNO.0000000000000499. [Epub ahead of print]
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