



## George Liapakis Asst. Professor of Pharmacology

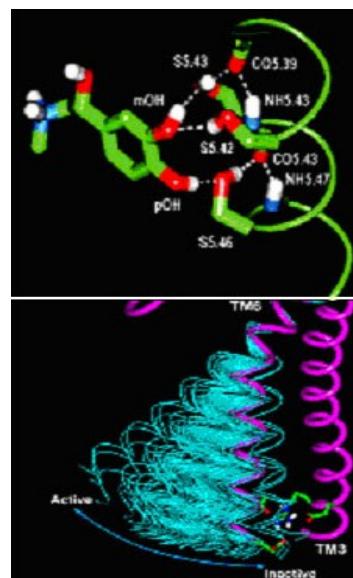
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### Professional History

2000-: Assistant Professor of Pharmacology, Faculty of Medicine, University of Crete  
1997-2000: Postdoctoral Research Scientist, Center for Molecular Recognition, Columbia University, New York, USA  
1994-1997: Postdoctoral Research Fellow, University of Pennsylvania, School of Medicine, Dept of Pharmacology, Philadelphia, USA  
1989-1994: PhD in Pharmacology, Faculty of Medicine, University of Crete, Greece  
1986: Diploma of Pharmacy, School of Pharmacy, Aristotelion University of Thessaloniki, Greece

### Research Interests

Elucidation of the structure and function of G-protein coupled receptors (GPCRs), and particularly the beta2-adrenergic and the corticotropin releasing factor (CRF) receptors.



### Representative Publications

1. Gkountelias K, Tselios T, Venihaki M, Deraos M, Lazaridis I, Rassouli O, Gravanis A, and Liapakis G (2009). Alanine scanning mutagenesis of the second extracellular loop of type 1 corticotropin releasing factor receptor revealed residues critical for peptide binding. Mol. Pharmacol., 75:793–800.
2. Venihaki M, Sakihara S, Subramanian S, Dikkes P, Weninger SC, Liapakis G, Graf T, Majzoub JA (2004). Urocortin III, a brain neuropeptide of the corticotropin-releasing hormone family: modulation by stress and attenuation of some anxiety-like behaviors. J Neuroendocrinol., 16(5): 411-422.

3. Liapakis G., Chan W.C., Papadokostaki M. and Javitch J.A. (2004). Synergistic Contributions of the Functional Groups of Epinephrine to its Affinity and Efficacy at the  $\beta$ 2 Adrenergic Receptor. *Mol Pharmacol.* 2004, 65(5): 1181-1190
4. Shi L, Liapakis G, Xu R, Guarnieri F, Ballesteros JA, Javitch JA. (2002). [S.L. and L.G. equally contributed to this work]. Beta2 adrenergic receptor activation. Modulation of the proline kink in transmembrane 6 by a rotamer toggle switch. *J Biol Chem.*, 277(43): 40989-40996
5. Javitch J.A., Shi L. and Liapakis G (2002). Use of the substituted cysteine accessibility method to study the structure and function of G protein-coupled receptors. *Methods Enzymol.* 2002;343:137-56.
6. Ballesteros J.A., Jensen A.D., Liapakis G., Rasmussen S.G.F., Shi L., Gether U., and Javitch J.A. (2001). [B.J.A., J. A.D., L.G., and R.S.G.F contributed equally to this work]. Activation of the beta2 adrenergic receptor involves disruption of an ionic lock between the cytoplasmic ends of transmembrane segments 3 and 6 . *J Biol Chem.*, 276(31):29171-29177.
7. Liapakis G., Ballesteros J.A., Papachristou S., Chan W.C., Chen X., and Javitch J.A. (2000) The Forgotten Serine: A critical role for Ser 203(5.42) in ligand binding to and activation of the beta2 adrenergic receptor. *J Biol Chem.*, 275(48): 37779-37788.