BIOGRAPHICAL SKETCH

Ioannis Charalampopoulos

NAME: Ioannis Charalampopoulos, BSc, MSc, PhD Personal Webpage: http://regenera-pharm.med.uoc.gr (Regenerative Pharmacology Lab)	POSITION TITLE: Assistant Professor of Pharmacology, Medical School, University of Crete

EDUCATION /TRAINING

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	YEAR(s)	FIELD OF STUDY
Biology Dept., University of Patras	BSc	06/1997	Biology
Medical School, University of Crete	MSc	09/2000	Neuroscience
Medical School, University of Crete	PhD	12/2004	Neuropharmacology
Neuroscience Dept., Karolinska Institutet	Postdoctoral	09/2007	Molecular Neurobiology

A. ACADEMIC AND PROFESSIONAL POSITIONS

POSITIONS HELD

2014-present: Assistant Professor of Pharmacology, Medical School, University of Crete
2010-2014: Lecturer in Pharmacology, Medical School, University of Crete.
2007-2010: Research Scientist, Dept. of Pharmacology, Medical School, University of Crete
2005-2007: Post-doctoral fellow at Molecular Neurobiology Lab (PI: Prof. Carlos F. Ibáñez), Dept. of Neuroscience, Karolinska Institutet, Stockholm, Sweden

ADVISORY-ADMINISTRATIVE DUTIES

Member of the Editorial Board of '*Pharmacology Research & Perspectives', 'Journal of Pharmacology and Clinical Research', 'Clinical Pharmacology and Translational Medicine'* and Review Editor at *'Frontiers in Pharmacology', 'Frontiers in Neurology' and 'Frontiers in Neuroscience'* journals.
Member of the following Scientific Societies:

- Federation of European Biochemical Societies (FEBS).
- Federation of European Neuroscience Societies (FENS).
- European Cell Death Organization (ECDO).
- International Brain Research Organization (IBRO).
- The American Endocrine Society.
- Hellenic Society of Gene Therapy and Regenerative Medicine
- Hellenic Society of Molecular Biology and Biochemistry.
- Hellenic Society for Neuroscience.

B. RESEARCH INTERESTS

We are focusing our research interests on the investigation of the molecular mechanisms that growth factors and their receptors are using to regulate the regenerative capacity of nervous system. Such molecules, as Neurotrophins, control brain development and maintenance during adulthood and in aging, while they importantly participate in neuronal survival, differentiation and repair. Our studies are ranging from neurotrophin receptors structure-function experiments to development of novel ligands with specific effects on these receptors (mainly the TrkA and $p75^{NTR}$ receptors of the Nerve Growth Factor) and their therapeutic potential on animal models of neurodegenerative diseases (Alzheimer's Disease and Spinal Cord Injury). The aim of our work is to decipher the multiple signaling effects of these receptors and thus to design and test novel analogs of their ligands with desired pharmacological properties (targeted signaling, small size, lipophilicity etc). In order to explore the aforementioned effects of neurotrophins analogs to their receptors we use a plethora of molecular biology techniques (site-directed mutagenesis, signaling mechanisms studies, cellular effects like proliferation and apoptosis) in primary neuronal and glial cultures (neurons, oligodendrocytes and Schwann cells isolated from hippocampus, cortex, cerebellum, Superior Cervical Ganglia and Dorsal Root Ganglia) or embryonic (cortical) and adult (SVZ and hippocampal) neural stem cells cultures. Finally, we test our compounds for their efficacy –mediated from the neurotrophin receptors- to promote neuroprotection or neurorepair through their ability to induce adult neurogenesis, in *in vivo* animal models of neurodegenerative diseases, like Alzheimer's Disease (using the 5xFAD mice) or Spinal Cord Injury.

C. SELECTED PEER-REVIEWED PUBLICATIONS *(in chronological order).*

1. Pediaditakis I, Kourgiantaki A, Prousis KC, Potamitis C, Xanthopoulos KP, Zervou M, Calogeropoulou T, Charalampopoulos I, Gravanis A. **Front Pharmacol. 2016 Dec 26;7:512.**
2. Pediaditakis I, Efstathopoulos P, Prousis KC, Zervou M, Arévalo JC, Alexaki VI, Nikoletopoulou V, Karagianni E, Potamitis C, Tavernarakis N, Chavakis T, Margioris AN, Venihaki M, Calogeropoulou T, Charalampopoulos I, Gravanis A. **Neuropharmacology. 2016 Dec;111:266-282.**
3. Efstathopoulos P, Kourgiantaki A, Karali K, Sidiropoulou K, Margioris AN, Gravanis A, Charalampopoulos I. ***Transl Psychiatry*. 2015 Nov 24;5:e685 (# Corresponding author).**
4. Pediaditakis I, Iliopoulos I, Theologidis I, Delivanoglou N, Margioris AN, **Charalampopoulos I[#],** Gravanis A. ***Endocrinology. 2015, 156(1):16-23.***
5. Charalampopoulos I, Vicario A, Pediaditakis I, Gravanis A, Simi A, Ibáñez CF. ***Cell Rep. 2012, 27;2(6):1563-70.***
6. Lazaridis I.*, Charalampopoulos I*, Alexaki VI, Avlonitis N, Pediaditakis I, Efstathopoulos P, Calogeropoulou T, Castanas E, Gravanis A. ***PloS Biol., Vol 9(4), 2011,*** (*equal contributors)
7. Vilar M*, Charalampopoulos I*, Kenchappa RS*, Simi A*, Karaca E, Reversi A, Choi S, Bothwell M, Mingarro I, Friedman W, Schiavo G, Bastiaens P, Verveer P, Carter BD, Ibáñez CF. ***Neuron, 2009, 62(1): 72-83*** (* equal contributors)
8. Charalampopoulos I, Remboutsika E, Margioris AN, Gravanis A. ***Trends Endocrinol Metab. 2008, 19(8):300-7.***
9. Charalampopoulos I*, Alexaki VI*, Lazaridis I, Dermitzaki E, Avlonitis N, Tsatsanis C, Calogeropoulou T, Margioris AN, Castanas E, Gravanis A. ***FASEB J. 2006, 20:577-9.*** (* equal contributors)
10. Charalampopoulos I, Tsatsanis C, Dermitzaki E, Alexaki VI, Castanas E, Margioris AN, Gravanis A. ***Proc Natl Acad Sci U S A. 2004, 101:8209-14.***