

## BIOGRAPHICAL SKETCH

Ioannis Charalampopoulos

**NAME:** Ioannis Charalampopoulos

Personal Webpage: <http://regenera-pharm.med.uoc.gr>

**POSITION TITLE:** Assistant Professor of  
Pharmacology, Medical School, University of Crete

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral 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. Positions and Honors.

#### Academic Positions

2005-2007: Post-doctoral fellow at Molecular Neurobiology Lab (Prof. Carlos F. Ibáñez), Dept. of Neuroscience, Karolinska Institutet

2007-2010: Research Scientist, Dept. of Pharmacology, Medical School, University of Crete

2010-2014: Lecturer in Pharmacology, Medical School, University of Crete.

2014-present: Assistant Professor of Pharmacology, Medical School, University of Crete

2012-present: Scientific collaborator, Institute of Molecular Biology and Biotechnology (IMBB), Foundation of Research and Technology, Hellas (FORTH)

#### Other Experience and Professional Memberships

Member of the Editorial Board of '*Pharmacology Research & Perspectives*' and '*Frontiers in Pharmacology*' journals.

Member of the following Scientific Societies:

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

#### Honors

Invited speaker in:

2015: FFRM-FENS meeting (Thessaloniki, Greece).

2012: NGF Meeting (Würzburg, Germany).

2012: Golden Helix Symposium (Turin, Italy).

2012: NICHe Conference (Heraklion, Greece).

2011: MSRM International Meeting (Heraklion, Greece).

2010: ENDOCYTOSIS Conference (Chalkidiki, Greece).

2009: 7th EACPT Summer School in Clinical Pharmacology and Therapeutics (Alexandroupolis, Greece).

#### Awards:

2015: 1<sup>st</sup> award for oral presentation in 66<sup>th</sup> Annual Hellenic Conference of the Greek Society for Biochemistry and Molecular Biology.

2010: 1<sup>st</sup> award for oral presentation in 6<sup>th</sup> Annual Hellenic Meeting of the Greek Pharmacological Society.

2009: 1<sup>st</sup> award for oral presentation in 60<sup>th</sup> Annual Hellenic Conference of the Greek Society for Biochemistry and Molecular Biology.

2004: 1<sup>st</sup> award for poster presentation in 56<sup>th</sup> Annual Hellenic Conference of the Greek Society for Biochemistry and Molecular Biology.

**B. Selected peer-reviewed publications (in chronological order).**

**43 peer-reviewed Medline papers** (all PubMed papers at:

<http://www.ncbi.nlm.nih.gov/pubmed/?term=Charalampopoulos+I> )

ResearchGate: [https://www.researchgate.net/profile/loannis\\_Charalampopoulos2](https://www.researchgate.net/profile/loannis_Charalampopoulos2)

Google Scholar: <https://scholar.google.gr/citations?user=4V1FeLwAAAAJ&hl=el&oi=ao>

Scopus Author ID: 55883246200

ResearcherID: I-6319-2012

ORCID ID: [orcid.org/0000-0003-3415-7332](http://orcid.org/0000-0003-3415-7332)

**h index: 23, Total Citations: 1400**

Selected Publications:

1. Efstathopoulos P, Kourgiantaki A, Karali K, Sidiropoulou K, Margioris AN, Gravanis A, Charalampopoulos I. ***Transl Psychiatry*. 2015 Nov 24;5:e685 (# Corresponding author).**
2. Pediaditakis I, Iliopoulos I, Theologidis I, Delivanoglou N, Margioris AN, Charalampopoulos I<sup>#</sup>, Gravanis A. ***Endocrinology*. 2015, 156(1):16-23. (# Corresponding author).**
3. Vasileia Anagnostopoulou, Ioseph Pediaditakis, Saad Alkahtani, Eva-Maria Schmidt, Florian Lang, Achille Gravanis, Ioannis Charalampopoulos#, Christos Stournaras. ***Endocrinology* 2013, 154(7):2446-56 (# Corresponding author)**
4. Charalampopoulos I, Vicario A, Pediaditakis I, Gravanis A, Simi A, Ibáñez CF. ***Cell Rep*. 2012, 27;2(6):1563-70.**
5. Gravanis A, Calogeropoulou T, Panoutsakopoulou V, Thermos K, Neophytou C, Charalampopoulos I. ***Science Signal*. 2012, 16;5(246):pt8**
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, Margioris AN, Gravanis A. ***J Neurochem*. 2008, 107(5):1457-69.**
10. 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)**
11. Charalampopoulos I, Dermitzaki E, Vardouli L, Tsatsanis C, Stournaras C, Margioris AN, Gravanis A. ***Endocrinology*. 2005, 146:3309-18.**
12. 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**

**Patent Application:** PCT (International Publication Number): WO 2008/155534 A2

EPO-UK 711948,0: Neuroprotective synthetic spiro-neurosteroids.

### C. Research Support.

#### A) From International Grants:

- Novartis, Basel: funding grant for the project 'The effects of FTY720 (Fingolimod) on neurogenesis'. Duration: 09/2011-03/2013. 120,000€ (Collaborative Researcher).
- Karolinska Institutet, NIH Grant Number: 1R01MH071624-01A2 (2006-2007) 25.000€ (Postdoctoral Researcher)
- Karolinska Institutet, Research Training Network within the 5th Framework Programme of European Commission, HPRN-CT-2002-00263 (2007) 15.000€ (Postdoctoral Researcher).

#### B) From National Grants:

- Special Research Account of the University of Crete, 2011-2013: 15.000€ (Principal Investigator)
- Bodossakis Foundation for Stem Cells Laboratory equipment: 42,400€ (Collaborative Researcher).
- ERC Grant Schemes National Initiative, General Secretary of Research and Technology: '3D Scaffolds hosting neural stem cells: developing Neuroimplants and Neurobiosensors.' Duration: 04/2012-10/2015, 1.037.000€ (Collaborative Researcher).
- Excellence II grant, General Secretary of Research and Technology: 'Investigation of New Therapeutics for Diabetic Retinopathy: Neurosteroids/ Microneurotrophins'. Duration: 01/02/2014 – 31/07/2015, 180.000€ (Collaborative Researcher).
- Special Research Account of the University of Crete, 2010-2012: 15.000€ (Collaborative Researcher).
- Medical School scholarship (2007-2009, 2005-2006) 58.000€ (Graduate student).
- General Secretary of Research and Technology: 27.000€, Duration: 2002-2005 (Graduate student)).
- Foundation of National Scholarships (I.K.Y.) (2002) 600€ (Stipend).

### D. PERSONAL STATEMENT

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<sup>NTR</sup>, receptors of the Nerve Growth Factor) and their therapeutic potential on animal models of neurodegenerative diseases (Alzheimer's Disease, Amyotrophic Lateral Sclerosis 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 (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.