

Curriculum Vitae

Ioanna Katerina Aggeli

Email: ikaggeli@biol.uoa.gr

Tel: 210 7274948

ACADEMIC QUALIFICATIONS

- 1997 – 2001 Doctorate of Philosophy
Section of Animal & Human Physiology; Department of Biology, School of Science, National and Kapodistrian University of Athens, Greece.
Contribution to the study of MAPKs in the cardiac muscle of the amphibian *Rana ridibunda*
- 1992 – 1996 B.Sc. Biology, Department of Biology, School of Science,
National and Kapodistrian University of Athens.

EMPLOYMENT RECORD

- Sept 14-Today ASSISTANT PROFESSOR Section of Animal & Human Physiology;
Department of Biology, NKUA.
- Oct 08-Aug 14 LECTURER. Section of Animal & Human Physiology; Department of
Biology, NKUA.
- Oct 07-Aug 08 TUTOR (P.D. 407) Section of Animal & Human Physiology; Department
of Biology, NKUA.
- Jan 05-Jun 07 POST DOCTORAL RESEARCH. Supervisor: Prof. Is. Beis. Section of
Animal & Human Physiology; Department of Biology, NKUA.
-PYTHAGORAS I {70/3/7399}. -Stress and molecular mechanisms of signal
transduction mechanisms in the mammalian heart.
- Dec 01-Nov 04 POST DOCTORAL RESEARCH. Supervisor: Prof. P Sugden.
National Heart and Lung Institute, Department of Cardiac Medicine, Flowers
Building, Imperial College of Science, Technology and Medicine, London, UK
- Oct 97-Nov 01 PhD RESEARCH. Supervisor: Dr C Gaitanaki.
Section of Animal & Human Physiology; Department of Biology,
NKUA, Greece
- Aug 96-Feb 97 SCIENTIFIC VISITOR. Supervisor: Dr. H Dotsika
Department of Parasitology, Hellenic Pasteur Institute, Athens

CONFERENCES/WORKSHOPS

- 40th FEBS Congress, Two novel antioxidants with diverse biological effects on curcumin-induced apoptosis in C2 skeletal myoblasts; signaling mechanisms involved. July 4-9 2015, The biochemical basis of life. Berlin, Germany.
- 38th FEBS Congress, Calcium paradox induces apoptosis in the isolated perfused vertebrate heart; involvement of p38-MAPK and calpain. July 6-11 2013, Mechanisms in Biology. St Petersburg, Russia.
- 38th FEBS Congress, Curcumin-induced signal transduction pathways in H9c2 cardiac myoblasts. July 6-11 2013, Mechanisms in Biology. St Petersburg, Russia
- Frontiers in CardioVascular Biology, European Society for Cardiology. HOX-1 and COX-2: Two key mediators regulating C2 myoblast tolerance to oxidative stress, 2010, Berlin, Germany.
- 33rd FEBS Congress & 11th IUBMB Conference. Intracellular calcium levels and p38-MAPK signalling pathways sequentially regulate H₂O₂- and calpain inhibition-induced alpha B-crystallin phosphorylation in H9c2 cells. (2008) Athens, Greece
- Apoptosis 2008. Role of calcium and p38-MAPK/MSK1 signaling in the regulation of H₂O₂-induced phosphorylation of sHsp in H9c2 cells. Luxembourg, Abstract No *III 1*.
- European Society of Cardiology. Nicorandil restores the lost protection of preconditioning in vivo and equalizes the intracellular mediators c-GMP, PKC and p38-MAPK. (2007) Vienna, Austria

Poster or oral presentations in 42 National Scientific Meetings

PUBLICATIONS-ORIGINAL PAPERS

1. **Aggeli I.K.S.**, Gaitanaki C., Lazou A. and Beis I. (2001). Activation of multiple MAPK pathways (ERKs, JNKs, p38-MAPK) by diverse stimuli in the amphibian heart. **Mol. Cell. Biochem.** **221 (1-2): 63-69.**

2. **Aggeli I.K.S.**, Gaitanaki C., Lazou A. and Beis I. (2001). Stimulation of multiple MAPK pathways by mechanical overload in the perfused amphibian heart. **Am. J. Physiol.** **281 (5): R1689-1698.**

3. **Aggeli I.K.S.**, Gaitanaki C., Lazou A. and Beis I. (2002). Hyperosmotic and thermal stresses activate p38-MAPK in the perfused amphibian heart. **J. Exp. Biol.** **205 (Pt 4): 443-454.**

4. **Aggeli I.K.S.**, Gaitanaki C., Lazou A. and Beis I. (2002). Alpha(1)- and beta-adrenoceptor stimulation differentially activate p38-MAPK and atrial natriuretic peptide production in the perfused amphibian heart. **J. Exp. Biol.** **205 (Pt 16): 2387-2397.**

5. Kemp T.J., **Aggeli I.K.**, Sugden P.H. and Clerk A. (2004). Phenylephrine and endothelin-1 upregulate connective tissue growth factor in neonatal rat cardiac myocytes. **J. Mol. Cell. Cardiol.** **37 (2): 603-606.**

6. Clerk A., **Aggeli I.K.S.**, Stathopoulou K. and Sugden P.H. (2006). Peptide growth factors signal differentially through protein kinase C to extracellular signal-regulated kinases in neonatal cardiomyocytes. **Cell. Signal.** **18 (2): 225-235.**

7. Iliodromitis E.K., Gaitanaki C., Lazou A., **Aggeli I.K.**, Gizas V., Bofilis E., Zoga A., Beis I. and Kremastinos D. (2006). Differential activation of mitogen-activated protein kinases in ischemic and nitroglycerin-induced preconditioning. **Basic Res. Cardiol.** **101 (4): 327-335.**

8. **Aggeli I.K.S.**, Gaitanaki C. and Beis I. (2006). Involvement of JNKs and p38-MAPK / MSK1 pathways in H₂O₂-induced upregulation of heme oxygenase-1 mRNA in H9c2 cells. **Cell. Signal.** **18 (10): 1801-1812.**

9. Andreadou I., Iliodromitis E., Tsovolas K., **Aggeli I.K.**, Zoga A., Gaitanaki C., Paraskevaidis I., Beis I. and Kremastinos D. (2006). Acute administration of vitamin E triggers preconditioning via KATP channels and cyclic-GMP without inhibiting lipid peroxidation. **Free Rad. Biol. Med.** **41 (7):**

10. Gaitanaki C., Kalpachidou Th., **Aggeli I.K.S.** and Beis I. (2007). Effects of CoCl₂ on p38-MAPK signalling pathway in the perfused amphibian (*Rana ridibunda*) heart. **J. Exp. Biol.** **210 (Pt 13): 2267-2277.**
11. Iliodromitis E., **Aggeli I.K.**, Gaitanaki C., Tsiafoutis I., Zoga A., Beis Is. and Kremastinos D. (2008). p38-MAPK is involved in restoration of the lost protection of preconditioning by nicorandil *in vivo*. **Eur. J. Pharmacol.** **579 (1-3): 289-297.**
12. **Aggeli I.K.**, Gaitanaki C. and Beis Is. (2008). Oxidative stress and calpain inhibition induce alpha B-crystallin phosphorylation via p38- MAPK and calcium signalling pathways in H9c2 cells. **Cell. Signal.** **20 (7): 1292-1302.**
13. Gaitanaki C., Mastri M., **Aggeli I.K.S.** and Beis Is. (2008). Differential roles of p38-MAPK and JNKs in mediating early protection or apoptosis in the hyperthermic perfused amphibian heart. **J. Exp. Biol.** **211 (Pt 15): 2524-2532.**
14. **Aggeli IK**, Beis I, Gaitanaki C. (2010). ERKs and JNKs mediate hydrogen peroxide-induced Egr-1 expression and nuclear accumulation in H9c2 cells. **Physiol Res.** **59 (3): 443-454.**
15. Gourgou E, **Aggeli IK**, Beis I, Gaitanaki C. (2010). Hyperthermia- induced Hsp70 and MT20 transcriptional upregulation are mediated by p38-MAPK and JNKs in *Mytilus galloprovincialis* (Lamarck); a pro- survival response. **J. Exp. Biol.** **213 (Pt 2): 347-357.**
16. **Aggeli IK**, Kefaloyianni, E., Beis I, Gaitanaki C. (2010). HOX-1 and COX-2: Two differentially regulated key mediators of skeletal myoblast tolerance under oxidative stress. **Free Radic. Res.** **44 (6): 679-93.**
17. **Aggeli IK**, Theofilatos D, Beis I, Gaitanaki C. (2011). Insulin-induced oxidative stress up-regulates heme oxygenase-1 via diverse signaling cascades in the C2 skeletal myoblast cell line. **Endocrinology** **152 (4): 1274-1283.**
18. Demerouti E, Andreadou I, **Aggeli I-K**, Farmakis D, Zoga A, Gaitanaki C, Beis I, Anastasiou-Nana M, Kremastinos D, Iliodromitis E. (2013). Ovariectomy reinstates the infarct size-limiting effect of postconditioning in female rabbits. **Cell. Biochem. Biophys.** **65 (3): 373-80.**
19. **Aggeli I-K**, Koustas E, Gaitanaki C and Beis I. (2013). Curcumin acts as a pro-oxidant inducing apoptosis via JNKs in the isolated perfused *Rana ridibunda* heart. **J. Exp. Zool. A Ecol. Genet. Physiol.** **319 (6): 328-39.**
20. **Aggeli I-K**, Triantafyllos F., Papapavlou G., Beis I. and Gaitanaki C. (2013) "Calcium paradox in the isolated perfused *Rana ridibunda* heart: role of calpains and p38-MAPK " **Can. J. Physiol. Pharmacol.** **91 (12):1095-106.**
21. Zikaki K., **Aggeli I-K**, Gaitanaki C. and Beis I. (2014) "Curcumin induces the apoptotic intrinsic pathway via upregulation of reactive oxygen species and JNKs in H9c2 cardiac myoblasts" **Apoptosis** **19 (6): 958- 74.**
22. Kotsakiozi P., Parmakelis A., **Aggeli I.-K.**, Gaitanaki C., Giokas S., Valakos E. (2015) "Water balance and expression of heat-shock protein 70 in *Codringtonia* species: a study within a phylogenetic framework" **J. Moll. Stud.** **81: 24-36.**
23. Peleli M., **Aggeli I-K.**, Matralis A.N., Kourounakis A.P., Beis I. and Gaitanaki C. (2015) "Evaluation of two novel antioxidants with differential effects on curcumin-induced apoptosis in C2 skeletal myoblasts; involvement of JNKs" **Biorg. Med. Chem.** **23: 390-400.**
24. **Aggeli I.K.**, Kapogiannatou A., Paraskevopoulou F. and Gaitanaki C. (2021). Differential response of cardiac aquaporins to hyperosmotic stress; salutary role of AQP1 against the induced apoptosis. **Eur RevMed Pharmacol Sci** **25: 313-325.**

MEMBERSHIPS

2008 - today Hellenic Society for Biological Sciences

Hellenic Society for Biochemistry and Molecular
Biology

Hellenic Society of Free Radicals and oxidative
stress

2006 – today International Society for Heart Research (European Section)

FELLOWSHIPS and AWARDS

2011-2012 Fulbright Foundation scholarship, Children’s Hospital Medical Center,
Division of Molecular Cardiovascular Biology, Cincinnati, Ohio, USA

1997-2001 National Scholarship Foundation, PhD Scholarship Program

2008 Bodosaki Foundation Award - Selected among the 10 best poster
presentations in the 33rd FEBS Congress & 11th IUBMB Conference. Athens,
Greece

Other professional occupations:

Editor **ANIMALS**-MDPI (2020-....)

Guest Editor **BIOLOGY**-MDPI Special issue: “Cardiac protein kinases as homeostatic molecular
“switches” and regulators of cell fate” (2021)

Reviewer of scientific papers in international journals (*Food and Chemical Toxicology, Nutrients,
Biology, Molecules, Cells, International Journal of Molecular Sciences, Biomolecules, Antioxidants* etc.)

Member of committees for the examination of Master Theses

Member of the organizing committee of various conferences of the HSBS