

CURRICULUM VITAE

NAME CATHERINE GAITANAKI
POSITION : **PROFESSOR OF PHYSIOLOGY**
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Academic Qualifications

1984: D. Phil., School of Biology, Aristotle University of Thessaloniki, Greece

1980: Graduate in Biology, Aristotle University of Thessaloniki, Greece

Employment Record

2008-present : **Professor**, Dept. of Animal & Human Physiology, School of Biology, UoA

2002-2008: **Associate Prof.**, Dept. of Animal & Human Physiology, School of Biology, UoA

1995-2002: **Assistant Prof.**, Dept. of Animal and Human Physiology, School of Biology, UoA.

1990-1995: **Assistant Prof.**, Dept. of Zoology, School of Biology, Aristotle University of Thessaloniki

1985-1990: **Lecturer**, Dept. of Zoology, School of Biology, Aristotle University of Thessaloniki

Memberships of professional bodies

- ❖ Hellenic Society for Biological Sciences
- ❖ European Society of Comparative Physiology
- ❖ European Biochemical Society
- ❖ British Cardiothoracic Society
- ❖ Hellenic Society of Biochemistry and Molecular Biology
- ❖ Hellenic Foundation of Endocrine & Metabolism Diseases
- ❖ American Society of Physiology
- ❖ European Society for Cardiology
- ❖ Hellenic Society of Free Radicals and oxidative stress
- ❖ European Society of Free Radicals and oxidative stress

Research grants sources:

- G.S.R.T.
- Special Account for Research, Aristotle University of Thessaloniki
- Special Account for Research, University of Athens
- European Community
- Empirikion Foundation of Athens
- Bodosakis Foundation
- Ministry of Education Lifelong Learning and Religious Affairs (MELLRA)
- Medical Research Council, U.K.
- Clinical Research Committee, National Heart and Chest Hospitals, U.K.

Other professional occupations

- Reviewer of research proposals of G.S.R.T.
- Reviewer of research proposals of MELLRA
- Reviewer of research proposals of Cyprus Foundation
- Reviewer of scientific papers in diverse international journals (e.g.):

American Journal of Physiology

Biochimica Biophysica Acta

Molecular and Cellular Biochemistry

Journal of Experimental Biology

Journal of Comparative Physiology

Comparative Biochemistry and Physiology

Cardiovascular Research

Endocrinology

Cellular and Molecular Biology Letters

Journal of Cellular Physiology

International Journal of Biochemistry & Cell Biology

FEBS Letters

- Member of various committees for the examination of Master's Theses and PhD Theses
- General Secretary of the Hellenic Society of Biological Sciences (2005-07)
- Member of the organization committee of various conferences of the HSBS

Post-graduate studies-Collaborations:

- **May-July 1982.** Institute für Tierpathologie der Ludwig-Maximilians-Universität, München, Germany.
- **June-August 1983.** Department of Molecular Biology, University of Warwick, U.K.
- **September 1987-September 1988.** Sabbatical, Department of Cardiac Medicine, National Heart & Lung Institute, University of London, U.K.
- **June-August 1989.** Department of Cardiac Medicine, National Heart & Lung Institute, University of London, U.K.
- **July-August 1997.** Department of Cardiac Medicine, National Heart & Lung Institute, Imperial College of London, U.K.
- **December 1997.** Department of Cardiac Medicine, National Heart & Lung Institute, Imperial College of London, U.K.
- **June-September 1998.** Department of Cardiac Medicine, National Heart & Lung Institute, Imperial College of London, U.K.
- **July-August 1999.** Department of Cardiac Medicine, National Heart & Lung Institute, Imperial College of London, U.K.

Research Interests:

- ❖ Primary cultures of animal cells
- ❖ The calpain-calpastatin system in various vertebrate and invertebrate tissues
- ❖ The “calcium paradox” in the vertebrate heart
- ❖ Energy metabolism in vertebrate and invertebrate tissues
- ❖ Intracellular molecular signal transduction mechanisms at the organism, organ/tissue, and cellular levels of vertebrates (with emphasis in the heart) and marine invertebrates
- ❖ Preconditioning and postconditioning of the mammalian heart
- ❖ Stress and regulation of gene expression in diverse cell types
- ❖ Physiological responses of cardiac and skeletal myocytes to oxidative stress. Induction of either pro-apoptotic or anti-apoptotic molecular mechanisms
- ❖ Subcellular distribution of active molecules

PARTICIPATION IN CONFERENCES

A) NATIONAL: 40

B) INTERNATIONAL: 35

Educational Experience

- ◆ Animal and Human Physiology (1980-present)
- ◆ Comparative Animal Physiology (1981- 2000)
- ◆ Advanced Animal Physiology (1982-90) and (1995-present)
- ◆ Basic Principles of Physiology (1989-90)
- ◆ Special Topics on Animal and Human Physiology (1986-present)
- ◆ Signal transduction (2000-present)
- ◆ Immunology (1995-present)
- ◆ Cell cultures (1998-2003)
- ◆ Molecular basis of human diseases (2000-present)
- ◆ Supervision of ~ 70 students performing either their Diploma Thesis or Master’s Thesis.

SUPERVISOR OF THE FOLLOWING PhD THESES

- 1) **Sargianos N. (1989-1994)**. “Studies of the calpain-calpastatin system in *Rana ridibunda* skeletal muscle”, School of Biology, Aristotle University of Thessaloniki.
- 2) **Hatzizisis D. (1989-1997)**. “Studies on the calpain-calpastatin system in *Octopus vulgaris* arm muscle”, School of Biology, Aristotle University of Thessaloniki.
- 3) **Aggeli I.K. (1997-2001)**. “Contribution on the MAPKs study in the amphibian *Rana ridibunda* heart”, School of Biology, UoA.
- 4) **Kefaloyianni E. (2002-2007)**. “Signal transduction pathways induced by stress at the organism and cellular levels”, School of Biology, UoA.
- 5) **Liakata E. (1998-2007)**. «Study of autoimmunity: Characterization of self-active T-lymphocytes from patients with Hashimoto disease and development of an experimental model for the study of Grave’s disease”. School of Biology, UoA.

- 6) **Stathopoulou K. (2002-2008)**. “Effects of alkalosis on the signal transduction pathways in vertebrate heart”, School of Biology, UoA.
- 7) **Gourgou E. (2003-2010)**. “Signal transduction pathways in marine invertebrates” School of Biology, UoA.
- 8) **Margaroni M. (2008-present)**. “Development of experimental vaccines against intracellular bacteria”, School of Biology, UoA.

LIST OF PUBLICATIONS

A) PhD Thesis

Gaitanaki Catherine (1984). Production and uses of monoclonal antibodies for the study of pyruvate kinase isoenzymes. School of Biology, Aristotle University of Thessaloniki.

B) ORIGINAL ARTICLES

- B1) Gaitanaki C.J., Koliais S.J. and Beis I.D. (1985)**. Monoclonal antibodies to pyruvate kinase of rabbit skeletal muscle that distinguish the type M isoenzyme from other types of isoenzymes in rabbit and other species. **Mol. Physiol.**, **7**: 201-210. (5-year Impact Factor): 1.570
- B2) Gaitanaki C. and Beis I. (1985)**. Enzymes of adenosine metabolism in *Hymenolepis diminuta* (Cestoda). **Int. J. Parasitol.**, **15**: 651-654. (5-year Impact Factor): 3.938
- B3) Lazou A., Gaitanaki C., Michaelidis B., Papadopoulos A. and Beis Is. (1987)**. Purification, catalytic and regulatory properties of malate dehydrogenase from the foot of *Patella caerulea* (L). **Comp. Biochem. Physiol.**, **88B**: 1033-1040. (5-year Impact Factor): 1.914
- B4) Hailey A., Gaitanaki C. and Loumbourdis N.S. (1987)**. Metabolic recovery from exhaustive activity by a small lizard. **Comp. Biochem. Physiol.**, **88A**: 683-689. (5-year Impact Factor): 2.302
- B5) Michaelidis B., Gaitanaki C. and Beis Is. (1988)**. Modification of pyruvate kinase from the foot muscle of *Patella caerulea* (L) during anaerobiosis. **J. Exp. Zool.**, **248**: 264-271. (5-year Impact Factor): 2.838
- B6) Fuller S.J., Gaitanaki C.J. and Sugden P.H. (1989)**. Effects of increasing extracellular pH on protein synthesis and protein degradation in the perfused working rat heart. **Biochem. J.**, **259**: 173-179. (5-year Impact Factor): 4.592
- B7) Gaitanaki C.J., Sugden P.H. and Fuller S.J. (1990)**. Stimulation of protein synthesis by raised extracellular pH in cardiac myocytes and perfused hearts. **FEBS Lett.**, **260**: 42-44. (5-year Impact Factor): 3.399
- B8) Fuller S.J., Gaitanaki C.J. and Sugden P.H. (1990)**. Effects of catecholamines on protein synthesis in cardiac myocytes and perfused hearts isolated from adult rats; Stimulation of translation is mediated through the α_1 -adrenoceptor. **Biochem. J.**, **266**: 727-736. (5-year Impact Factor): 4.592
- B9) Papadopoulos A.I., Gaitanaki C.J. and Beis I.D. (1990)**. Pyruvate kinase isoenzymes in marine invertebrates: A comparative study by the use of monoclonal antibodies. **Comp. Biochem. Physiol.**, **96B**: 229-234. (5-year Impact Factor): 1.914
- B10) Gaitanaki C., Papadopoulos A. and Beis Is. (1990)**. Time course of covalent modification of pyruvate kinase during anaerobiosis in the mantle muscle and the hepatopancreas of the limpet *Patella caerulea* (L). **J. Comp. Physiol. (B)**, **160**: 529-535. (5-year Impact Factor): 2.453
- B11) Fuller S.J., Gaitanaki C.J., Hatchett R.J. and Sugden P.H. (1991)**. Acute α_1 -adrenergic stimulation of cardiac protein synthesis may involve increased intracellular pH and protein kinase C activity. **Biochem. J.**, **273**: 347-353. (5-year Impact Factor): 4.592
- B12) Sargianos N., Gaitanaki C. and Beis I. (1994)**. Purification and characterization of m-calpain from the skeletal muscle of the amphibian *Rana ridibunda*. **J. Exp. Zool.**, **269**: 95-105. (5-year Impact Factor): 2.838

- B13)** Sargianos N., **Gaitanaki C.** and Beis I. (1995). Studies on the autolysis of m-calpain from the skeletal muscle of the amphibian *Rana ridibunda*. **J. Exp. Zool.**, **271**: 82-94. (5-year Impact Factor):2.838
- B14)** Hatzizisis D., **Gaitanaki C.** and Beis Is. (1996). Purification and properties of a calpain II-like proteinase from *Octopus vulgaris* arm muscle. **Comp. Biochem. Physiol.** **113B**: 295-303. (5-year Impact Factor): 1.914
- B15)** Sargianos N., **Gaitanaki C.**, Dimitriadis B. and Beis I. (1996). Proteolytic degradation of isolated myofibrils and myofibrillar proteins by m-calpain from the skeletal muscle of the amphibian *Rana ridibunda*. **J. Exp. Zool.**, **276**: 30-42. (5-year Impact Factor):2.838
- B16)** Hatzizisis D., **Gaitanaki C.** and Beis I. (2000). Degradation of myofibrillar proteins by a calpain II-like proteinase in the arm muscle of *Octopus vulgaris*. **J. Comp. Physiol. (B)**, **170**: 447-456. (5-year Impact Factor):2.453
- B17)** 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**: 63-69. (5-year Impact Factor):1.959
- B18)** Seraskeris S., **Gaitanaki C.** and Lazou A. (2001). α_{1D} -adrenoceptors do not contribute to phosphoinositide hydrolysis in adult rat cardiac myocytes. **Arch. Biochem. Biophys.**, **392**: 117-122. (5-year Impact Factor): 2.850
- B19)** 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. Integrative Comp. Physiol.**, **281**: R1689-R1698. (5-year Impact Factor): 3.395
- B20)** Koufaki M., Calogeropoulou Th., Detsi A., Roditis A., Kourounakis A.P., Papazafiri P., Tsiakitzis K., **Gaitanaki C.**, Beis I. and Kourounakis P.N. (2001). Novel potent inhibitors of lipid peroxidation with protective effects against reperfusion arrhythmias. **J. Med. Chem.**, **44**: 4300-4303. (5-year Impact Factor): 5.180
- B21)** 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**: 443-454. (5-year Impact Factor): 3.424
- B22)** Lazou A., **Gaitanaki C.**, Vaxevanellis S. and Pehtelidou A. (2002). Identification of α_1 -adrenergic receptors and their involvement in phosphoinositide hydrolysis in the frog heart. **J. Exp. Zool.**, **293**: 99-105. (5-year Impact Factor): 2.838
- B23)** Aggeli I.-K. S., **Gaitanaki C.**, Lazou A. and Beis I. (2002). α_1 - and β - adrenergic receptor stimulation differentially activate p38-MAPK and atrial natriuretic peptide production in the isolated perfused amphibian heart. **J. Exp. Biol.**, **205**: 2387-2397. (5-year Impact Factor): 3.424
- B24)** **Gaitanaki C.**, Anezaki M., Margieti M.-M., Papazafiri P. and Beis I. (2002). Characterisation of the calcium paradox in the isolated pigeon heart: protection by hypothermia, acidosis and alkalosis. **Cell. Physiol. Biochem.**, **12**: 93-100. (5-year Impact Factor):3.276
- B25)** Iliodromitis E.K., **Gaitanaki C.**, Lazou A., Bofilis E., Karavolias G.K., Beis I. and Kremastinos D.Th. (2002). Dissociation of stress-activated protein kinase (p38-MAPK and JNKs) phosphorylation from the protective effect of preconditioning in vivo. **J. Mol. Cell. Cardiol.**, **34**: 1019-1028. (5-year Impact Factor): 5.376
- B26)** **Gaitanaki C.**, Papazafiri P. and Beis I. (2003). The calpain-calpastatin system and the calcium paradox in the isolated perfused pigeon heart. **Cell. Physiol. Biochem.**, **13**: 173-180. (5-year Impact Factor):3.276
- B27)** **Gaitanaki C.**, Stathopoulou K., Stavridou C. and Beis I. (2003). Oxidative stress stimulates multiple MAPK signalling pathways and phosphorylation of the small HSP27 in the perfused amphibian heart. **J. Exp. Biol.**, **206**: 2759-2769. (5-year Impact Factor): 3.424 *
- B28)** Koufaki M., Calogeropoulou T., Rekka E., Chryselis M., Papazafiri P., **Gaitanaki C.** and Makriyiannis A. (2003). Bifunctional agents for reperfusion arrhythmias: Novel hybrid vitaminE/class I antiarrhythmics. **Bioorg. Med. Chem.**, **11**: 5209-5219. (5-year Impact Factor):3.108

* One out of the three best articles of the issue.

- B29)** Gaitanaki C., Kefaloyianni E., Marmari A. and Beis I. (2004). Various stressors rapidly activate the p38-MAPK signaling pathway in *Mytilus galloprovincialis* (Lam.). **Mol. Cell. Biochem.**, **260**: 119-127. (5-year Impact Factor):1.959
- B30)** Gaitanaki C., Labrakakis C., Papazafiri P. and Beis I. (2004). Various divalent cations protect the isolated perfused pigeon heart against a calcium paradox. **J. Comp. Physiol. (B)**, **174**: 371-382. (5-year Impact Factor):2.453
- B31)** Komis G., Apostolakos P., Gaitanaki C. and Galatis B. (2004). Hyperosmotically induced accumulation of a phosphorylated p38-like MAPK involved in protoplast volume regulation of plasmolyzed wheat root cells. **FEBS Lett.**, **573**: 168-174. (5-year Impact Factor):3.399
- B32)** Koufaki M., Detsi A., Theodorou E., Kirizidi C., Calogeropoulou T., Vassilopoulos A., Kourounakis A.P., Reka E., Kourounakis P.N., Gaitanaki C. and Papazafiri P. (2004). Synthesis of chroman analogues of lipoic acid and evaluation of their activity against reperfusion arrhythmias. **Bioorg. Med. Chem.**, **12**: 4835-4841. (5-year Impact Factor):3.108
- B33)** Vassilopoulos A., Gaitanaki C., Papazafiri P. and Beis I. (2005). Atrial natriuretic peptide mRNA regulation by p38-MAPK in the perfused amphibian heart. **Cell. Physiol. Biochem.**, **16**: 183-192. (5-year Impact Factor): 3.276
- B34)** Kefaloyianni E., Gourgou E., Ferle V., Kotsakis E., Gaitanaki C. and Beis I. (2005). Acute thermal stress and various heavy metals induce tissue-specific pro- or anti-apoptotic events via p38-MAPK signal transduction pathway in *Mytilus galloprovincialis* (Lam.). **J. Exp. Biol.**, **208**: 4427-4436. (5-year Impact Factor):: 3.424
- B35)** Lazou A., Markou T., Zioga M., Vasara E., Efstathiou A. and Gaitanaki C. (2006). Dopamine mimics the cardioprotective effect of ischemic preconditioning via activation of α_1 -adrenoceptors in the isolated rat heart. **Physiol. Res.**, **55**: 1-8. (5-year Impact Factor): 1.663
- B36)** Stathopoulou K., Gaitanaki C. and Beis I. (2006). Extracellular pH changes activate the p38-MAPK signalling pathway in the amphibian heart. **J. Exp. Biol.**, **209**: 1344-1354. (5-year Impact Factor): 3.424
- B37)** Iliodromitis E.K., Gaitanaki C., Lazou A., Aggeli I.-K., Gizas V., Bofilis E., Zoga A., Beis I. and Kremastinos D.Th. (2006). Differential activation of mitogen activated protein kinases in ischemic and nitroglycerin-induced preconditioning. **Bas. Res. Cardiol.**, **101**: 327-335. (5-year Impact Factor): 4.725
- B38)** 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**: 1801-1812. (5-year Impact Factor):: 4.114**
- B39)** Andreadou I., Iliodromitis E.K., Tsovolas K., Aggeli I.-K., Zoga A., Gaitanaki C., Paraskevaidis I.A., Markantonis S.L., Beis I. and Kremastinos D.Th (2006). Acute administration of vitamin E triggers preconditioning via K_{ATP} channels and cyclic-GMP without inhibiting lipid peroxidation. **Free Rad. Biol. Med.**, **41**: 1092-1099. (5-year Impact Factor): 5.773
- B40)** Gaitanaki C., Papatriantafyllou M., Stathopoulou K. and Beis I. (2006). Effects of various oxidants and antioxidants on the p38-MAPK signalling pathway in the perfused amphibian heart. **Mol. Cell. Biochem.**, **291**: 107-117. (5-year Impact Factor): 1.959
- B41)** Kefaloyianni E., Gaitanaki C. and Beis I. (2006). ERK1/2 and p38-MAPK signalling pathways, through MSK1, are involved in NF- κ B transactivation during oxidative stress in skeletal myoblasts. **Cell. Signal.**, **18**: 2238-2251. (5-year Impact Factor): 4.114*
- B42)** Gaitanaki C., Pliatska M., Stathopoulou K. and Beis I. (2007). Cu²⁺ and acute thermal stress induce protective events via the p38-MAPK signalling pathway in the perfused *Rana ridibunda* heart. **J. Exp. Biol.**, **210**: 438-446. (5-year Impact Factor): 3.424
- B43)** Gaitanaki C., Kalpachidou T., Aggeli I.-K. S., Papazafiri P. and Beis I. (2007). CoCl₂ induces protective events via the p38-MAPK signalling pathway and ANP in the perfused amphibian heart. **J. Exp. Biol.**, **210**: 2267-2277. (5-year Impact Factor): 3.424

* 7th out of the 25 most downloaded articles for July-September of 2006.

** 12th out of the 25 most downloaded articles for January-March 2006.

- B44)** Iliodromitis E.K., Aggeli I., **Gaitanaki C.**, Tsiafoutis I., Zoga A., Beis I. and Kremastinos D.Th. (2008). p38-MAPK is involved in restoration of the lost protection of preconditioning by nicorandil in vivo. **Eur. J. Pharmacol.**, **579**: 289-297. (5-year Impact Factor): 2.587
- B45)** Pechtelidou A., Beis I. and **Gaitanaki C.** (2008). Transient and sustained oxidative stress differentially activate the JNK1/2 pathway and apoptotic phenotype in H9c2 cells. **Mol. Cell. Biochem.**, **309**: 177-189. (5-year Impact Factor): 1.959
- B46)** Aggeli I.-K. S, Beis I. and **Gaitanaki C.** (2008). Oxidative stress and calpain inhibition induce alpha B-crystallin phosphorylation via p38-MAPK and calcium signalling pathways in H9c2 cells. **Cell. Signal.**, **20**: 1292-1302. (5-year Impact Factor): 4.114
- B47)** **Gaitanaki C.**, Matri M., Aggeli I.-K.S. and Beis I. (2008). Differential roles of p38-MAPK and JNKs in mediating early protection or apoptosis in the hyperthermic perfused amphibian heart. **J. Exp. Biol.**, **211**: 2524-2532. (5-year Impact Factor): 2.424
- B48)** Stathopoulou K., Beis I. and **Gaitanaki C.** (2008). MAPK signaling pathways are needed for survival of H9c2 cardiac myoblasts under extracellular alkalosis. **Am. J. Physiol., Heart Circ. Physiol.**, **295**: H1319-H1329. (5-year Impact Factor): 3.856
- B49)** Markou T., Cieslak D., **Gaitanaki C.** and Lazou A. (2009). Differential roles of MAPKs and MSK1 signalling pathways in the regulation of c-Jun during phenylephrine-induced cardiac myocyte hypertrophy. **Mol. Cell. Biochem.**, **322**: 103-112. (5-year Impact Factor): 1.959
- B50)** Aggeli I.-K. S., Beis I. and **Gaitanaki C.** (2010). Hydrogen peroxide upregulates Egr-1 expression and nuclear accumulation in H9c2 cells via ERKs and JNKs. **Physiol. Res.** **59**: 443-454. (5-year Impact Factor): 1.663
- B51)** Aggeli I.K., Kefaloyianni E., Beis I. and **Gaitanaki C.** (2010). HOX-1 and COX-2: two key mediators of skeletal myoblast tolerance under oxidative stress. **Free Radic. Res.**, **44**: 679-693. (5-year Impact Factor): 2.982
- B52)** Gourgou E., Aggeli I.K., Beis I. and **Gaitanaki C.** (2010). Hyperthermia-induced transcriptional upregulation are mediated by p38-MAPK and JNKs in *Mytilus galloprovincialis* (Lamarck): a pro-survival response. **J. Exp. Biol.** **213**: 347-357. (5-year Impact Factor): 3.424
- B53)** Aggeli I.K., Theofilatos D., Beis I. and **Gaitanaki C.** (2011). Insulin-induced oxidative stress upregulates heme oxygenase-1 via diverse signaling cascades in C2 skeletal myoblasts. **Endocrinology**, **In Press**. (5-year Impact Factor): 5.265
- B54)** Karagouni E., Kammona O., Margaroni M., Kotti K., Karageorgiou V., **Gaitanaki C.** and Kiparissides C. (2013). Uptake of BSA-FITC Loaded PLGA Nanoparticles by Bone Marrow-Derived Dendritic Cells Induces Maturation But Not IL-12 or IL-10 Production. **Nanosci. Nanotechnol. Lett.** **5**: 498-504. (5-year Impact Factor): 0.528
- B55)** Demerouti E., Andreadou I., Aggeli I.K., Farmakis D., Zoga A., **Gaitanaki C.**, Beis I. Anastasiou-Nana M., Kremastinos D.T. and Iliodromitis E.K. (2013). Ovariectomy reinstates the infract size-limiting effect of postconditioning in female rabbits. **Cell. Biochem. Biophys.** **65**: 373-380. (5-year Impact Factor): 3.107
- B56)** Aggeli I.K., Koustas E., **Gaitanaki C.** and Beis I. (2013). Curcumin acts as a pro-oxidant inducing apoptosis in the perfused amphibian *Rana ridibunda* heart. **J. Exp. Zool. (A)**, **In Press**. (5-year Impact Factor): 1.612
- B57)** Aggeli I.K., Zacharias T., Papapavlou G., **Gaitanaki C.** and Beis I. (2013). Calcium paradox induces apoptosis via p38-MAPK in the isolated perfused *Rana ridibunda* heart. **Can. J. Physiol. Pharmacol. In Press**. (5-year Impact Factor): 1.920
- B58)** Livanos P., Galatis V., **Gaitanaki C.** and Apostolakos P. (2013). Phosphorylation of a p38-like MAPK is involved in sensing cellular redox state and drives atypical tubulin polymer assembly in wheat root cells. **Plant Cell Environ. (Under revision)**. (5-year Impact Factor): 5.748

C) ABSTRACTS IN NATIONAL and INTERNATIONAL CONFERENCES (130)**BOOKS FOR EDUCATION**

- 1) Beis I. and **Gaitanaki C. (1985)**. Special Issues on Physiology I, pp.216.
- 2) Beis I., **Gaitanaki C.** and Lazou A. **(1985)**. Special Issues on Physiology II, pp. 172.
- 3) Beis I., **Gaitanaki C.**, Kaloyianni M., Lazou A. and Papadopoulos A. **(1990)**. Principles of Physiology, pp. 320.
- 4) Beis I., **Gaitanaki C.**, Theophilidis G., Kaloyianni M., Lazou A., Michaelidis B. and Papadopoulos A. **(1990)**. Experimental Physiology (volume I), pp. 60.
- 5) Beis I. and **Gaitanaki C. (1991)**. Experimental Physiology (volume II), pp. 67.
- 6) Beis I., Lazou A. and **Gaitanaki C. (1991)**. Simulations of physiological systems, pp. 60.
- 7) Beis I. and **Gaitanaki C. (1995, 2003, 2007)**. Experimental Animal Physiology, pp. 135.
- 8) **Gaitanaki C.**, Karagouni E., Papazafiri P. and Tsitsiloni O. **(1995, 2007)**. Practicals in Immunology, pp. 120.
- 9) Beis I., **Gaitanaki C.** and Valakos E.D. **(1997)**. Practicals in Comparative Physiology, pp. 94.
- 10) Beis I., **Gaitanaki C.**, Valakos E.D., Papazafiri P., and Lazou A. **(2000)**. Vertebrate Physiological Systems, pp. 124.
- 11) **Gaitanaki C.** and Baxevanis C. **(2007, 2013)**. Immunology (R. Goldsby, Kindt T., Osborne B.), Translation, Broken Hill Publishers Ltd., pp. 800.
- 12) Beis I., **Gaitanaki C.** and Marmari A. **(2007)**. Environmental Animal Physiology, Volume I: Comparative Physiology (P. Willmer, G. Stone and I. Johnston), Translation, AEI Publisher, pp. 447.
- 13) Beis I., **Gaitanaki C.**, Marmari A. and Valakos E. **(2010)**. Environmental Animal Physiology, Volume II: Copying with the Environment (P. Willmer, G. Stone and I. Johnston), Translation, Odysseus Publisher, pp. 397.