

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 research proposals of Ministry of Health, Italy
- Reviewer of research proposals of Hong-Kong
- Reviewer for memberships provided by Onassis 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: 100

B) INTERNATIONAL: 70

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 ~ 140 students performing either their Diploma Thesis or Master’s Thesis.

SUPERVISOR OF THE 15 PhD THESES

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) PUBLICATIONS IN INTERBATIONAL JOURNALS (SCI)

- 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: 2.570)
- B2)** Gaitanaki C. and Beis I. (1985). Enzymes of adenosine metabolism in *Hymenolepis diminuta* (Cestoda). *Int. J. Parasitol.*, **15**: 651-654. (Impact Factor 3.53,, 5-year I.F. 3.5)
- 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. (Impact Factor 2.219, 5-year I.F. 2.046)
- 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. (Impact Factor 1.966, 5-year I.F. 2.211)
- 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 3.126)
- 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. (Impact Factor 4.057, 5-year I.F. 4.086)
- 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. (Impact Factor 3.057, 5-year I.F. 3.37)
- 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. (Impact Factor 4.057, 5-year I.F. 4.086)
- 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. (Impact Factor 2.219, 5-year I.F. 2.046)
- 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. (Impact Factor 2.062, 5-year I.F. 2.042)
- 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. (Impact Factor 4.057, 5-year I.F. 4.086)
- 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 3.126)
- 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 3.126)
- 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. (Impact Factor 2.219, 5-year I.F. 2.046)
- 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 3.126)

- B16)** Pafilis P., Theologidis J., **Gaitanaki K.** and Valakos E. (1999). The effect of temperature on the digestive efficiency of a prey components in two lacertids lizards. **Comp. Biochem. Physiol., 124A: S139.** (*Impact Factor 2.219, 5-year I.F. 2.046*)
- B17)** Pafilis P., Theologidis J., **Gaitanaki K.** and Valakos E. (1999). The effect of temperature on the digestive efficiency of a prey components in two lacertids lizards. **Comp. Biochem. Physiol., 124A: S139.** (*Impact Factor 2.219, 5-year I.F. 2.046*)
- B18)** 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.** (*Impact Factor 2.042, 5-year I.F. 2.072*)
- B19)** Aggeli, I.-K., **Gaitanaki C.** and Beis I. (2000) Mechanical stress activates all three MAPK families (ERKs, JNKs and p38) in the isolated perfused *Rana ridibunda* heart. **Biochem. Soc. Trans. 28: A24**
- B20)** 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.** (*Impact Factor 2.795, 5-year I.F. 2.681*)
- B21)** 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.** (*Impact Factor 3.391, 5-year I.F. 3.48*)
- B22)** 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.** (*Impact Factor 3.026, 5-year I.F. 3.255*)
- B23)** 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.** (*Impact Factor 6.205, 5-year I.F. 6.521*)
- B24)** Iliodromitis E.K., **Gaitanaki C.**, Lazou A., Bofilis E., Zoga A., Beis I. and Kremastinos D.Th. (2001). Activation of mitogen-activated protein kinases in various models of preconditioning. **J. Mol. Cell. Cardiol., 33:A50.** (*Impact Factor 4.133, 5-year I.F. 5.065*)
- B25)** 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. Physiol. Society Abstracts, 8: 0303R.**
- B26)** 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.** (*Impact Factor 3.014, 5-year I.F. 3.44*)
- B27)** 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: 1.854*)
- B28)** 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.** (*Impact Factor 3.014, 5-year I.F. 3.44*)
- B29)** **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.** (*Impact Factor 5.4, 5-year I.F. 4.354*)
- B30)** 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.** (*Impact Factor 4.133, 5-year I.F. 5.065*)

- B31)** Iliodromitis E.K., **Gaitanaki C.**, Lazou A., Zoga A., Steliou I., Beis I. and Kremastinos D. (2002). Stress activated protein kinases and ischaemic preconditioning in vivo. **Eur. Heart J.**, **4**: S216. (*Impact Factor 22.673, 5-year I.F. 22.162*)
- B32)** Koufaki M., Calogeropoulou T., Detsi A., Roditis A., Kourounakis A.P., Papazafiri P., **Gaitanaki C.** and Kourounakis P. (2002). **Drugs Fut.**, **27**: S307.
- B33)** **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. (*Impact Factor 5.4, 5-year I.F. 4.354*)
- B34)** **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. (*Impact Factor 3.014, 5-year I.F. 3.44*)
- B35)** 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. (*Impact Factor 3.073, 5-year I.F. 2.916*)
- B36)** **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. (*Impact Factor 2.795, 5-year I.F. 2.681*)
- B37)** **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. (*Impact Factor 2.042, 5-year I.F. 2.072*)
- B38)** 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. (*Impact Factor 3.057, 5-year I.F. 3.37*)
- B39)** Koufaki M., Detsi A., Theodorou E., Kirizidi C., Calogeropoulou T., Vassilopoulos A., Kourounakis A.P., Rekka 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. (*Impact Factor 3.073, 5-year I.F. 2.916*)
- B40)** 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. (*Impact Factor 5.4, 5-year I.F. 4.354*)
- B41)** 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. (*Impact Factor 3.014, 5-year I.F. 3.44*)
- B42)** 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. (*Impact Factor 1.655, 5-year I.F. 1.82*)
- B43)** 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. (*Impact Factor 3.014, 5-year I.F. 3.44*)
- B44)** 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. (*Impact Factor 11.981, 5-year I.F. 7.434*)

- B45)** 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. (*Impact Factor 3.968, 5-year I.F. 3.959*)
- B46)** Andreadou I., Iliodromitis E.K., Tsovolas K., Aggeli I.-K., Zoga A., **Gaitanaki C.**, Paraskevaïdis 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. (*Impact Factor 6.17, 5-year I.F. 6.457*)
- B47)** **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. (*Impact Factor 2.795, 5-year I.F. 2.681*)
- B48)** Kefaloyianni E., **Gaitanaki C.** and Beis I. (2006). ERK1/2 and p38-MAPK signalling pathways, through MSK1, are involved in NF-κB transactivation during oxidative stress in skeletal myoblasts. **Cell. Signal.**, **18**: 2238-2251. (*Impact Factor 3.968, 5-year I.F. 3.959*)
- B49)** Stathopoulou K., **Gaitanaki C.** and Beis I. (2006). Alkalosis induces anti-apoptotic events via the MAPK signalling pathways in rat cardiac myoblasts. **FEBS J.**, **273**: S113. (*Impact Factor 4.392, 5-year I.F. 4.267*)
- B50)** Gourgou E., **Gaitanaki C.** and Beis I. (2006). Thermal stress induces anti-apoptotic events via the p38-MAPK pathway in *M. galloprovincialis*. **FEBS J.**, **273**:S114. (*Impact Factor 4.392, 5-year I.F. 4.267*)
- B51)** Andreadou I., Iliodromitis E.K., Tsovolas K., **Gaitanaki C.**, Zoga A., Aggeli I.K., Beis I., Kremastinos D.Th. (2006). Acute administration of vitamin E triggers preconditioning via KATP channels and cyclic-GMP without inhibiting lipid peroxidation. **Rev. Clin. Pharmacol. Pharmacokinet., Int. Ed.**, **20**: 70.
- B52)** **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. (*Impact Factor 3.014, 5-year I.F. 3.44*)
- B53)** **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. (*Impact Factor 3.014, 5-year I.F. 3.44*)
- B54)** Iliodromitis E.K., Aggeli I.K.S, **Gaitanaki C.**, Zoga A., Beis I. and Kremastinos D. (2007). Nicorandil restores the lost protection of preconditioning in vivo and equalizes the intracellular mediators c-GMP, PKC and p38-MAPK. **Eur. Heart J.**, **28**: S363. (*Impact Factor 22.673, 5-year I.F. 22.162*)
- B55)** 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. (*Impact Factor 3.263, 5-year I.F. 3.266*)
- B56)** 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. (*Impact Factor 2.795, 5-year I.F. 2.681*)
- B57)** Gourgou E., Meletiou A. Beis I. and **Gaitanaki C.** (2008). Protection mechanisms against oxidative stress in *Mytilus galloprovincialis*. **Comp. Biochem. Physiol. (A)**, **151**:, S9 (*Impact Factor 1.966, 5-year I.F. 2.211*)
- B58)** 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. (*Impact Factor 3.968, 5-year I.F. 3.959*)

- B59)** 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. (Impact Factor 3.014, 5-year I.F. 3.44)
- B60)** 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. (Impact Factor 3.864, 5-year I.F. 3.722)
- B61)** Stathopoulou K., Beis I. and Gaitanaki C. (2008). Increases in extracellular pH activate the MAPK signalling pathways in a mammalian cardiac experimental model. **J. Mol. Cell. Cardiol.**, *44*: S737. (Impact Factor 4.133, 5-year I.F. 5.065)
- B62)** Aggeli I.-K. S, Gaitanaki C. and Beis I. (2008). ERKS and JNKS regulate hydrogen peroxide-induced EGR-1 mRNA and protein stimulation and nuclear accumulation in H9c2 cells. **J. Mol. Cell. Cardiol.**, *44*: S737. (Impact Factor 4.133, 5-year I.F. 5.065)
- B63)** Aggeli I.-K.S, Beis I. and Gaitanaki C. (2008). Intracellular calcium levels and p38-MAPK signalling pathways sequentially regulate H₂O₂ and calpain inhibition-induced alpha B-crystallin phosphorylation in H9c2 cells. **FEBS J.**, *275*: S116. (Impact Factor 4.392, 5-year I.F. 4.267)
- B64)** Gourgou H., Beis I. and Gaitanaki C. (2008). Transcription factors activation by hyperthermia in *Mytilus galloprovincialis*. **FEBS J.**, *275*: S122. (Impact Factor 4.392, 5-year I.F. 4.267)
- B65)** 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. (Impact Factor 2.795, 5-year I.F. 2.681)
- B66)** 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. (Impact Factor 1.655, 5-year I.F. 1.82)
- B67)** 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. (Impact Factor 2.839, 5-year I.F. 3.046)
- B68)** 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. (Impact Factor 3.014, 5-year I.F. 3.44)
- B69)** Aggeli I.K., Kefaloyianni E., Beis I. and Gaitanaki C. (2010). HOX-1 and COX-2: Two key mediators regulating C2 myoblast tolerance to oxidative stress. **Cardiovasc. Res.**, *87S*: S126. (Impact Factor 8.168, 5-year I.F. 6.86)
- B70)** Demerouti E., Andreadou I., Zoga A., Aggeli I.K., Gaitanaki C., Beis I., Anastasiou-Nana M., Kremastinos D.Th. and Iliodromitis E.K. (2010). Ovariectomy restores the infarct size-limiting effect of postconditioning in female rabbits. **Eur. Heart J.**, *31S*, p87. (Impact Factor 22.673, 5-year I.F. 22.162)
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