

KATERINA A. MOUTOU

Curriculum Vitae

PERSONAL DETAILS

Date and Place of Birth: 16 July 1969, Volos, Greece
Current Position: Associate Professor, Vertebrate Biology
Work Address: Department of Biochemistry and Biotechnology, University of Thessaly
26 Ploutonos Street, 41221 Larissa, Greece
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UNIVERSITY EDUCATION

Jan 1993-May 1996 Ph.D., University of Aberdeen, U.K. Departments of Zoology and Pharmacology
“Feeding behaviour, growth performance and toxicological responses in rainbow trout (*Oncorhynchus mykiss*
(Walbaum)) fed on normal and medicated diets”; Supervised by Prof. D.F. Houlihan and Prof. M.D. Burke; Funded
by the Greek State Scholarship Foundation

Sep 1987-Oct 1991 Aristotle University of Thessaloniki, Greece, B.Sc. (Hons) in Biology; Final Mark: 7.55
(max 10.0) equivalent to B-upper

SCIENTIFIC POSITIONS

Apr 1997-Aug 1998: **UCTRA, University of Algarve, Portugal.** EU Research Fellow
Sep 1998–Aug 2001: **University of Thessaly, Department of Agriculture, Plant & Animal Production, Greece.**
Lecturer
Disciplines taught: Ichthyology, Reproduction Physiology of Aquatic Organisms, Physiology of Fish Nutrition.
Sep 2000–Aug 2003: **University of Thessaly, Department of Biochemistry & Biotechnology, Greece.** Lecturer
Disciplines taught: Introduction to Biology, Cell Biology, Developmental Biology.
Sep 2003–Oct 2010: **University of Thessaly, Department of Biochemistry & Biotechnology, Greece.** Assistant
Professor
Disciplines taught: Introduction to Biology, Cell Biology, Developmental Biology, Immunology.
Oct 2010-today: **University of Thessaly, Department of Biochemistry & Biotechnology, Greece.** Associate
Professor
Disciplines teaching: Introduction to Biology, Cell Biology, Developmental Biology, Ecology.

PARTICIPATION IN RESEARCH PROJECTS

Apr 1997-Aug 1998: UCTRA, University of Algarve, Portugal. EU Research Fellow in **FAIR961422: Endocrine control
as a determinant of larval quality in fish aquaculture.**

2001–2002: **Molecular cloning and sequence of the embryonic form of Sparus aurata skeletal myosin alkali light
chain: developmental expression** funded by Instituto de Cooperação Científica e Tecnológica Internacional (ICCTI)
of Portugal.

Mar 2001–Mar 2002: **Sex differentiation and stress: correlation of the levels of expression of P450 aromatase
and the brain peptide pro-opiomelanocortin (POMC)** funded by the Research Committee of University of
Thessaly, Greece.

Nov 2002-Oct 2005: **Molecular cloning and characterization of the main serine proteases in the euryhaline
teleost Sparus aurata: salinity and hormonal regulation of gene expression and enzyme activity levels** funded
by the Ministry of Education, Greece.

2004-2005: **The importance of the genetic polymorphism of Major Histocompatibility Complex (MHC) in
disease susceptibility in mammals: the case of European brown hare (Lepus europaeus)** funded by the Ministry
of Education, Greece.

Jan 2004-Jan 2007: **Incorporation of legumes and carob seed germ meal in sea bream and sea bass feeds** funded
by the General Secretariat of Research and Technology, Greece.

2004-2008: Member of Working Group 2 **Genetic variation in prenatal events and its effect on postnatal growth and meat/fish quality** of COST Action 925 «The importance of prenatal events for postnatal muscle growth in relation to the quality of muscle based foods» (www.agrsci.dk/costaction925).

2008- currently: Member of Working Group 1 **Basic knowledge on fish larvae biology** of COST Action FA0801 «LARVANET: Critical success factors for fish larval production in European Aquaculture: a multidisciplinary network» (www.larvanet.org)

2010 – 2013: **Expression of skeletal myosin light chain 2 (MLC2) in gilthead sea bream (*Sparus aurata* L.): regulation and correlation with growth markers** funded by the Ministry of Education, Greece.

PEER-REVIEWED PUBLICATIONS

1. Martha Kaloyianni, Basile Michaelides, **Katerina Moutou** (1993). Effect of adenosine on glucose metabolism of *Rana ridibunda* erythrocytes. *Journal of experimental Biology*, 177, 41-50.
2. Ian D. McCarthy, Dominic F. Houlihan, Chris G. Carter, **Katerina Moutou** (1993). Variation in individual food consumption rates in fish and its implications for the study of fish nutrition and physiology. *Proceedings of the Nutrition Society*, 52, 427-436.
3. Martha Kaloyianni and **Katerina Moutou** (1994). Substrate utilization by *Rana ridibunda* erythrocytes. *Comparative Biochemistry and Physiology*, 108B, 357-366.
4. **Katerina A. Moutou**, Thomas Braunbeck and Dominic F. Houlihan (1997). Quantitative analysis of alterations in liver ultrastructure of rainbow trout (*Oncorhynchus mykiss* (Walbaum)) after administration of the aquaculture antibacterials oxolinic acid and flumequine. *Diseases of Aquatic Organisms*, 29, 21-34.
5. **Katerina A. Moutou**, Ian D. McCarthy and Dominc F, Houlihan (1998). The effect of feeding ration and social rank on the fin damage in rainbow trout, *Oncorhynchus mykiss* (Walbaum). *Journal of Fish Biology*, 52, 756-770.
6. **Katerina A. Moutou**, M. Danny Burke and Dominc F, Houlihan. (1998). Hepatic P450 Monooxygenase response in rainbow trout (*Oncorhynchus mykiss* (Walbaum)) administered aquaculture antibiotics. *Fish Physiology and Biochemistry*, 18, 97-106.
7. **Katerina A. Moutou**, Silvia Socorro, Deborah M. Power, Zissis Mamuris, and AdelinoV.M. Canario (2001). Molecular cloning and sequence of gilthead sea bream (*Sparus aurata*) α -skeletal actin: tissue and developmental expression. *Comparative Physiology and Biochemistry B*, 130, 13-21.
8. Zissis Mamuris, Costas Stamatis, **Katerina A. Moutou**, Apostolos Apostolidis and Costas Triantaphyllidis (2001). Application of RFLP analysis of PCR amplified mitochondrial DNA segments to evaluate genetic variation in striped red mullet (*Mullus surmuletus* L.) and in red mullet (*Mullus barbatus* L.) populations. *Marine Biotechnology*, 3, 264-274.
9. **K.A. Moutou**, A.V.M. Canario, Z. Mamuris, and D.M. Power (2001). Molecular cloning and sequence of *Sparus aurata* skeletal myosin light chains expressed in white muscle: developmental expression and thyroid regulation. *Journal of Experimental Biology*, 204, 3009-3018.
10. **Katerina A. Moutou**, Ian D. McCarthy and Dominic F, Houlihan (2001). The effect of dietary flumequine on food consumption and growth of rainbow trout. *Aquaculture International*, 9, 95-102.
11. Costas Stamatis, Alexander Triantafyllidis, **Katerina A. Moutou** and Zissis Mamuris (2004). Mitochondrial DNA variation in Northeast Atlantic and Mediterranean populations of Norway lobster, *Nephrops norvegicus*. *Molecular Ecology*, 13, 1377-1390.
12. **Katerina A. Moutou**, Panagiota Panagiotaki, and Zissis Mamuris (2004). Effects of salinity on digestive protease activity in the euryhaline sparid *Sparus aurata* L: a preliminary study. *Aquaculture Research*, 35, 1-3.
13. Marco A. Campinho, **Katerina A. Moutou**, and Deborah M. Power (2004). Temperature sensitivity of skeletal ontogeny in *Oreochromis mossambicus*. *Journal of Fish Biology*, 65, 1003-1025.
14. **Moutou K.A.**, Silva N., Mamuris Z., Power D.M. (2005). Expression of the myosin light chains 1 and 2 in the developing fast muscle of gilthead sea bream (*Sparus aurata*). *Archiv fur Tierzucht*, 48 Special Issue, p. 75
15. Zissis Mamuris, Maria Th. Stoumboudi, Costas Stamatis, Roberta Barbieri and **Katerina A. Moutou** (2005). Genetic variation in populations of the endangered fish *Ladigesocypris ghigii* and its implications for conservation. *Freshwater Biology*, 50, 1441-1453.

16. Elena Sarropoulou, Deborah M. Power, Zissis Mamuris and **Katerina A. Moutou** (2006). The two isoforms of myosin light chain 2 in gilthead sea bream (*Sparus aurata*); alternative polyadenylation site selection and tissue expression. *Archives of Animal Breeding*, 49 Special Issue, 92-96.
17. Costas Stamatis, Alexander Triantafyllidis, **Katerina A. Moutou** and Zissis Mamuris (2006). Allozymic variation in Northeast Atlantic and Mediterranean populations of Norway lobster, *Nephrops norvegicus*. *ICES Journal of Marine Science*, 63, 875-882
18. Eleni Psochiou, Zissis Mamuris, Panagiota Panagiotaki, Dimitrios Kouretas, **Katerina A. Moutou**. (2007) The response of digestive proteases to abrupt salinity decrease in the euryhaline sparid *Sparus aurata* L. *Comparative Biochemistry & Physiology*, 147B, 156-163.
19. Eleni Psochiou, Elena Sarropoulou, Zissis Mamuris, **Katerina A. Moutou** (2007). Sequence analysis and tissue expression pattern of *Sparus aurata* chymotrypsinogens and trypsinogen. *Comparative Biochemistry & Physiology*, 147B, 367-377.
20. Costas Stamatis, Franz Suchentrunk, **Katerina A. Moutou**, , Zissis Mamuris (2009). Phylogeography of the brown hare (*Lepus europaeus*) in Europe: a legacy of south-eastern Mediterranean refugia? *Journal of Biogeography*, 36, 515-528.
21. Apostolos P. Apostolidis, **Katerina A. Moutou**, Costas Stamatis, Zissis Mamuris (2009). Genetic structure of three marine fishes from the Gulf of Pagasitikos (Greece) based on allozymes, RAPD and mtDNA RFLP markers. *Biologia*, 64, 1005-1010.
22. Evagelia A. Koutsogiannouli, **Katerina A. Moutou**, Theologia Sarafidou, Costas Stamatis, Vasiliki Spyrou, Zissis Mamuris (2009). Major histocompatibility complex variation at class II *DQA* locus in the brown hare (*Lepus europaeus*). *Molecular Ecology*, 18, 4631-4649.
23. Evagelia A. Koutsogiannouli, **Katerina A. Moutou**, Theologia Sarafidou, Costas Stamatis, Zissis Mamuris (2010). Detections of hybrids between wild boars (*Sus scrofa scrofa*) and domestic pigs (*Sus scrofa F. domestica*) in Greece, using the PCR-RFLP method on melanocortin-1 receptor (MC1R) mutations. *Mammalian Biology*, 75, 69-73.
24. Zissis Mamuris, **Katerina A. Moutou**, Costas Stamatis, Theologia Sarafidou, Franz Suchentrunk. (2010) Y DNA and Mitochondrial lineages in European and Asian populations of the brown hare (*Lepus europaeus*). *Mammalian Biology*, 75, 233-242.
25. Nikolopoulou, D., **Moutou, K.A.**, Fountoulaki, E., Venou, B., Adamidou, S., Alexis, M.N. (2011) Patterns of gastric evacuation, digesta characteristics and pH changes along the gastrointestinal tract of gilthead sea bream (*Sparus aurata* L.) and European sea bass (*Dicentrarchus labrax* L.): a comparative approach. *Comparative Biochemistry & Physiology*, 158A, 406-414.
26. **Katerina A. Moutou**, Zissis Mamuris, Tania Firme, Maria Kontou, Theologia Sarafidou, Maria Th. Stoumboudi. (2011) Patterns of variability at the major histocompatibility class I and class II loci in populations of the endangered cyprinid *Ladigesocypris ghigii*. *Conservation Genetics*, 12, 1159-1171.
27. **Moutou, K.A.**, Tsikogias, S., Papadimitriou, T., Kagalou, I. (2012) Oxidative stress in *Cyprinus carpio* to analyze microcystin impact in eutrophic shallow lakes: A preliminary study. *Journal of Environmental Monitoring*, 14, 2195-2203.
28. Koutsogiannouli, E.A., **Moutou, K.A.**, Stamatis, C., Mamuris, Z. (2012) Analysis of MC1R genetic variation in *Lepus* species in Mediterranean refugia. *Mammalian Biology*, 77, 428-433.
29. **Moutou, K.A.**, Koutsogiannouli, E.A., Stamatis, C., Billinis, C., Kalbe, C., Scandura, M., Mamuris, Z. (2013) Domestication does not narrow MHC diversity in *Sus scrofa*. *Immunogenetics*, 65, 195-209.
30. Valente, L.M.P., **Moutou, K.A.**, Conceição, L.E.C., Engrola, S., Fernandes, J.M.O., Johnston, I.A. (2013) What determines growth potential and juvenile quality of farmed fish species? *Reviews in Aquaculture*, 5, S168-S193.
31. Iacovakis, C., Mamuris, Z., **Moutou, K.A.**, Touloudi, A., Hammer, A.S., Valiakos, G., Giannoulis, T., Stamatis, C., Spyrou, V., Athanasiou, L.V., Kantere, M., Asferg, T., Giannakopoulos, A., Salomonsen, C.M., Bogdanos, D., Birtsas, P., Petrovska, L., Hannant, D., Billinis, C. (2013) Polarisation of Major Histocompatibility Complex II Host Genotype with Pathogenesis of European Brown Hare Syndrome Virus. *PLoS ONE*, 8 (9), art. no. e74360.

Cumulative impact factor: 64.543

Total number of citations: 347

h-index: 9

Other relevant experience

- Reviewer of the international scientific journals *Comparative Biochemistry & Physiology*, *Journal of Fish Biology*, *Journal of Experimental Biology*, *Fish Physiology & Biochemistry*, *Aquaculture*, *Aquaculture Research*, *BMC Genetics*
- Evaluator of research proposals for the Biotechnology and Biological Sciences Research Council (BBRSC), UK, and the European Union Research Frameworks.
- Invited speaker in the undergraduate courses of Faculdade de Engenharia dos Recursos Naturais, University of Algarve, Portugal in the frame of Socrates Exchange Programme.
- Invited speaker in the MSc course “Aquaculture”, organized by Universitat de Barcelona in collaboration with Universitat Autònoma de Barcelona and Universitat Politècnica de Catalunya.
- Supervisor of three PhD and eight MSc projects, Department of Biochemistry & Biotechnology, University of Thessaly.
- Member of the Hellenic Aquaculture, Technology and Innovation Platform (Working groups of *Sustainable Feed Production* and *Knowledge Management*).
- Development of OPTIFEED Services for Hatcheries, Fish Farmers and Fish Feed Manufacturers (http://www.aquark.gr/index.php?option=com_content&view=article&id=170&Itemid=289).