

Dr Arkadios Dimitroglou

Personal information	<p>Date of Birth: 14 June 1980 Nationality: Greek Marital status: Married with 2 children</p> <p>Email: a.dimitroglou@aua.gr</p>
Education	<ul style="list-style-type: none"> • 2005-2009: University of Plymouth, School of Biological Sciences, Plymouth, U.K. Full time PhD student, submitted thesis title: “Effects of dietary mannan oligosaccharide (MOS) supplementation in relation to intestinal integrity, microbiota, health and production of cultured fish species”. • 2003-2004: University of Plymouth, School of Biological Sciences, Plymouth, U.K. MRes Applied Fish Biology, thesis title: “The role of mannan oligosaccharide on the development of white sea bream (<i>Diplodus sargus</i>) larvae • 1998-2002: T.E.I. of Epirus, Department of Aquaculture and Fisheries, Igoumenitsa, Greece Bachelor’s degree (Hons), thesis title: “Activity of lactate dehydrogenase in liver tissue of slow growing (lower modal group) and fast growing (upper modal group) of cultured trout <i>Oncorhynchus mykiss</i>. A case study from a farm in Epirus.”
Working Experience	<ul style="list-style-type: none"> • 15/11/2010 – present Nireus Aquaculture S.A., Greece <u>R & D Scientist</u>. Working with research projects including fish nutritional trials as well as broodstock management (Nireus selective breeding programs for European sea bass and gilthead sea bream). • 2005-2008 University of Plymouth, School of Biological Sciences, Plymouth, U.K. <u>Part-time demonstrator (3 years contract)</u>. Mainly teaching and support students at laboratory classes. • 1/11/2002–15/9/2003 Hellenic Centre of Marine Research, Department of Aquaculture <u>Research assistant (10½ months)</u>. Improving phytoplankton mass production using solar systems as well as the production of rotifer culture systems. • 1/5/2002–30/10/2002 Hellenic Centre of Marine Research, Department of Aquaculture <u>Industrial placement (6 months)</u>. During that period, I was trained in production of live food and marine species fry as well as broodstock management.
Workshops	<ul style="list-style-type: none"> ▪ “HERMES: Harmonisation & Recognition of LAS education and training in Member States”. Ellinikos Georgikos Organismos-Veterinary Research Institute, 24/9/2020 ▪ Project Management, National and Kapodistrian University of Athens, Center of Continuing Education and Lifelong Learning, 2019 (16,25 ECVET). ▪ Research-Innovation-Production on Aquaculture & Fisheries, Technical Seminar. University of Thessaly, Messolonghi 11/11/2016

	<ul style="list-style-type: none"> ▪ Care and Use of Laboratory Animals, Federation of European Laboratory Animal Science Associations (FELASA), Certificate ID 051/15_6_2016, University of Crete, Heraklion 30/5-10/6/2016. ▪ Fish Immunology, Wageningen Institute of Animal Sciences (WIAS), The Netherlands 10-14/4/2005
Languages	<ul style="list-style-type: none"> ▪ Greek: native speaker ▪ English: near native / fluent
Computer skills	<ul style="list-style-type: none"> ▪ ECDL U.K. (Windows, MS WORD, EXCEL, POWER POINT, ACCESS, INTERNET) ▪ PREDICTA SA, Greece, "Introduction to IBM SPSS Statistics & Basic Statistical Measurements"
Books	<ul style="list-style-type: none"> ▪ Lauzon, H. L., Dimitroglou, A., Merrifield, D. L., Ringø, E., Davies, S. J. (2014). Probiotics and Prebiotics: Concepts, Definitions and History. In Merrifield D. & Ringø E. (Eds), <i>Aquaculture Nutrition: Gut Health, Probiotics and Prebiotics</i>, Wiley-Blackwell scientific Publication. ▪ Ringø, E., Dimitroglou, A., Hoseinifar, S. H., Davies, S. J. (2014) Prebiotics in finfish: an update. In Merrifield, D. & Ringø, E. (Eds), <i>Aquaculture Nutrition: Gut Health, Probiotics and Prebiotics</i>, Wiley-Blackwell scientific Publication.
Peer reviewed publications	<ul style="list-style-type: none"> • Papapetrou, M., Kazlari, Z., Papanna, K., Papaharisis, L., Oikonomou, S., Manousaki, T., Loukovitis, D., Kottaras, L., Dimitroglou, A., Gourzioti, E., Pagonis, C., Kostandis, A., Tsigenopoulos, C.S., Chatziplis, D. 2021. On the trail of detecting genetic (co)variation between resistance to parasite infections (<i>Diplectanum aequans</i> and <i>Lernanthropus kroyeri</i>) and growth in European seabass (<i>Dicentrarchus labrax</i>). Aquaculture Reports, under review • Krick, M.V., Desmarais, E., Samaras, A., Gueret, E., Dimitroglou, A., Pavlidis, M., Tsigenopoulos, C.S., Guinand, B., 2021. Family-effects in the epigenomic response of red blood cells to a challenge test in the European sea bass (<i>Dicentrarchus labrax</i>, L.). BMC Genomics 22, 111 ▪ Chatziplis, D., Oikonomou, S., Loukovitis, D., Tsiokos, D., Samaras, A., Dimitroglou, A., Kottaras, L., Papanna, K., Papaharisis, L., Tsigenopoulos, C., Pavlidis, M., 2020. QTL for stress and disease resistance in European sea bass, <i>Dicentrarchus labrax</i> L.. Animals, 10, 1668. ▪ Papaharisis, L., Tsironi, T., Dimitroglou, A., Taoukis, P., Pavlidis, M., 2019. Stress assessment, quality indicators and shelf life of three aquaculture important marine fish, in relation to harvest practices, water temperature and slaughter method. Aquaculture Research, 50, 2608-2620. ▪ Samaras, A., Dimitroglou, A., Sarropoulou, E., Papaharisis, L., Kottaras, L., Pavlidis, M., 2016. Repeatability of cortisol stress response in the European sea bass (<i>Dicentrarchus labrax</i>) and transcription differences between individuals with divergent responses. Scientific Reports, 6, 34858; doi: 10.1038/srep34858. ▪ Dimitroglou, A., Merrifield, D. L., Carnevali, O., Picchietti, S., Avella, M., Daniels, C., Güroy, D., Davies, S. J., 2011. Microbial manipulations to improve fish health and production – A Mediterranean perspective. Fish & Shellfish Immun. 30, 1-16. ▪ Dimitroglou, A., Reynolds, P., Ravnoy, B., Johnsen, F., Sweetman, J. W., Johansen, J., Davies S. J., 2011. The effect of mannan oligosaccharide supplementation on Atlantic salmon smolts (<i>Salmo salar</i> L.) fed diets with high levels of plant proteins. J. Aquac. Res. & Dev. S1-011 ▪ Dimitroglou, A., Moate, R., Janssens, T., Spring, P., Sweetman, J. W., Davies S. J., 2011. Field observations on the effect of a mannan oligosaccharide on

	<p>mortality and gut integrity of sole (<i>Solea senegalensis</i>, Kaup) infected by <i>Photobacterium damsela</i> subsp. <i>piscicida</i>. J. Aquac. Res. & Dev. S1-013</p> <ul style="list-style-type: none"> ▪ Merrifield, D. L., Dimitroglou, A., Foey, A., Davies, S. J., Baker, R. T. M., Børgwald, J., Castex, M., Ringø, E., 2010. The current status and future focus of probiotic and prebiotic applications for salmonids. Aquaculture 302, 1-18. ▪ Dimitroglou, A., Merrifield, D. L., Spring, P., Sweetman, J., Moate, R., Davies, S.J., 2010. Effects of mannan oligosaccharides (MOS) supplementation on growth performance, feed utilisation, intestinal histology and gut microbiota of gilthead sea bream (<i>Sparus aurata</i>) fed diets with or without soybean meal. Aquaculture 300,182-188. ▪ Merrifield, D. L., Bradley, G., Baker, R. T. M., Dimitroglou, A., Davies, S. J., 2010. Probiotic applications for rainbow trout (<i>Oncorhynchus mykiss</i> Walbaum) I. Effects on growth performance, feed utilisation, intestinal microbiota and related health criteria. Aqua. Nutr. 16, 504–510. ▪ Merrifield, D. L., Harper, G., Dimitroglou, A., Ringø, E., Davies, S. J., 2010. Possible influence of probiotic adhesion to intestinal mucosa on the activity and morphology of rainbow trout (<i>Oncorhynchus mykiss</i>) enterocytes. Aqua. Res. 41, 1268–1272. ▪ Sweetman, J. W., Torrecillas, S., Dimitroglou, A., Rider, R., Davies, S. J., Izquierdo, M. S., 2010. Enhancing the natural defences and barrier protection of aquaculture species. Aqua. Res. 41, 345-355. ▪ Dimitroglou, A., Davies, S.J., Sweetman, J., Divanach, P., Chatzifotis, S., 2010. Dietary supplementation of mannan-oligosaccharide on white sea bream (<i>Diplodus sargus</i> L.) larvae: effects on development, gut morphology and salinity tolerance. Aqua. Res., 41, 245-251. ▪ Dimitroglou, A., Merrifield, D. L., Moate, R., Davies, S.J., Spring, P., Sweetman, J., Bradley, G., 2009. Dietary mannan oligosaccharide supplementation modulates intestinal microbial ecology and improves gut morphology of rainbow trout, <i>Oncorhynchus mykiss</i> (Walbaum). J. Anim. Sci. 87, 3226-3234. ▪ Merrifield, D. L., Dimitroglou, A., Bradley, G., Baker, R. T. M., Davies, S. J., 2009. Soybean meal alters autochthonous microbial populations, microvilli morphology and compromises intestinal enterocyte integrity of rainbow trout (<i>Oncorhynchus mykiss</i> Walbaum). J. Fish Dis. 32, 755-766.
<p>Non-peer reviewed publications</p>	<ul style="list-style-type: none"> ▪ Harper, G. M., Dimitroglou, A., Ringø, E., Merrifield D. L., 2011. Electron microscopy: an important tool to assess the effects of dietary components on the gastrointestinal tract of fish. Asian Aquaculture, The Practical Vol 2, Issue 1, 22-24 ▪ Sweetman, J., Dimitroglou, A., Davies, S. J., Torrecillas, S., 2008. Gut morphology: a key to efficient nutrition. Int. Aquafeed 11 26-30.
<p>Peer-review oral presentations in International conferences</p>	<ul style="list-style-type: none"> • Vela-Avitúa, S., Thorland, I., Bakopoulos, V., Papanna, K., Dimitroglou, A., Papaharisis, L., Guinand, B. Advanced selective breeding for disease resistance in European seabass (<i>Dicentrarchus labrax</i>). European Aquaculture society, Aquaculture Europe Conference 7-10 October 2019, Berlin, Germany. • Samaras, A., Dimitroglou, A., Papaharisis, L., Kottaras, E., Pavlidis, M. Family-based differences and stress responsiveness patterns in European sea bass (<i>Dicentrarchus labrax</i>). European Aquaculture society, Aquaculture Europe Conference 17-20 October 2017, Dubrovnik, Croatia.

	<ul style="list-style-type: none"> • Thorland, I., Barkas, D., Papaharisis, L., Dimitroglou, A., Kottaras, L. Growth trials demonstrate low feed composition by genotype interaction in gilthead seabream (<i>Sparus aurata</i>). European Aquaculture society, Aquaculture Europe Conference 17-20 October 2017, Dubrovnik, Croatia. • Loukovitis, D., Tsigenopoulos, C.S., Papaharisis, L., Kottaras, E., Dimitroglou, A., Terzoglou, V., Chatziplis, D. Detection of quantitative trait loci (QTL) related to growth in farmed gilthead sea bream (<i>Sparus aurata</i> L.). International Scientific Symposium Bioengineering of Animal Resources. May 28-29, 2015. Timisoara, Romania. • Sweetman, J. W., Dimitroglou, A., Merrifield, D. L., Moate, R., Davies, S. J., Spring, P., Bradley, G. Dietary mannan oligosaccharide supplementation modulates intestinal microbial ecology and improves gut morphology of rainbow trout <i>Oncorhynchus mykiss</i>. World Aquaculture Meeting, 22-25 September 2010, San Diego, CA, USA • Sweetman, J. W., Ravnoy, B., Johnsen, F., Johansen, J., Reynolds, P., Dimitroglou, A., Davies, S.J. The effect of a specific mannan oligosaccharide (Bio-Mos, Alltech) supplementation on the alleviation of gut structural changes induced by plant protein rich diets in salmon <i>Salmo salar</i>. World Aquaculture Meeting, 22-25 September 2010, San Diego, CA, USA • Dimitroglou, A., Davies, S. J., Sweetman, J. W., Morkore, T. Influence of mannan oligosaccharide on salmon (<i>Salmo salar</i>, L.) hind gut morphology using light and electron microscopy. European Aquaculture society, Aquamedit 2008, 4th International Congress on Aquaculture, Fisheries Technology and Environmental Management, 21 – 22 November 2008, Athens, Greece.
<p>Posters in International conferences</p>	<ul style="list-style-type: none"> • Samaras, A., Dimitroglou, A., Papaharisis, L., Tsigenopoulos, C.S., Chatziplis, D., Pavlidis, M. Divergent cortisol responsiveness in European sea bass <i>Dicentrarchus labrax</i>: integration of results and future perspectives. European Aquaculture society, Aquaculture Europe Conference 7-10 October 2019, Berlin, Germany. • Rawling, M., Dimitroglou, A., Leclercq, E., Merrifield, D., Barkas, D., Castex, M. The effects of feeding a novel multi-strain yeast fraction on the mucosal responses of juvenile gilthead seabream (<i>Sparus aurata</i>). European Aquaculture society, Aquaculture Europe Conference 25-29 August 2018, Montpellier, France. • Dimitroglou, A., Amoiridis, G., Barkas, D., Pavlidis, M., Papaharisis, L. Big scale trial with fish meal and fish oil substitution with animal originated raw materials feeding gilthead sea bream (<i>Sparus aurata</i>). European Aquaculture society, Aquaculture Europe Conference 17-20 October 2017, Dubrovnik, Croatia. • Rawling, M., Dimitroglou, A., Leclercq, E., Castex, M., Barkas, D., Merrifield, D. Effects of a yeast-based functional additive on the skin and intestinal

	<p>mucosal surfaces of juvenile gilthead seabream (<i>Sparus aurata</i>). European Aquaculture society, Aquaculture Europe Conference 17-20 October 2017, Dubrovnik, Croatia.</p> <ul style="list-style-type: none"> • Chatziplis, D., Samaras, A., Loukovitis, D., Dimitroglou, A., Kottaras E., Ekonomaki, K., Papaharisis, L., Tsigenopoulos, C.S., Pavlidis. M. Confirmation of quantitative trait loci (QTL) related to stress response in farmed seabass (<i>Dicentrarchus Labrax</i>) European Aquaculture society, Aquaculture Europe Conference 20-23 October 2015, Rotterdam, The Netherlands • Samaras, A., Dimitroglou, A., Tsigenopoulos, C.S., Kottaras, L., Chatziplis, D., Papaharisis, L., Loukovitis, D., Pavlidis, M. Improved fitness and genetic selection programs in Mediterranean Aquaculture. Biological Engineering Conference 27-29 November 2014, Istanbul, Turkey. • Papaharisis, L., Pavlidis, M., Chatziplis, D., Kottaras, E., Dimitroglou, A., Samaras, A., Loukovitis, D., Tsigenopoulos, C.S. Improving Greek fish farming competitiveness through innovative breeding selection programs for European sea bass (<i>Dicentrarchus labrax</i>) and gilthead sea bream (<i>Sparus aurata</i>). European Aquaculture society, Aquaculture Europe Conference 14-17 October 2014, Donostia - San Sebastián, Spain. • Papaharisis, L., Kottaras, E., Dimitroglou, A. Estimating performance of commercial fish stocks. European Aquaculture society, Aquaculture Europe Conference 18-21 October 2011, Rhodes, Greece. • Dimitroglou, A., Davies, S.J., Sweetman, J.W. The effect of dietary mannan oligosaccharides on the intestinal histology of rainbow trout (<i>Oncorhynchus mykiss</i>). Society of Experimental Biology, Annual Main Meeting, 6 - 10 July 2008, Marseille, France. • Dimitroglou, A., Davies, S.J., Sweetman, J.W., Spring, P. Influence of Bio-Mos on rainbow trout (<i>Oncorhynchus mykiss</i>) gut integrity in commercial rearing conditions. European Aquaculture society, Aquaculture Europe Conference, 24 – 27 October 2007, Istanbul, Turkey. • Dimitroglou, A., Papapetrou, M., Divanach, P. Development and production of rotifer <i>Brachionus plicatilis</i> culture using phytoplankton produced by solar photobioreactor as a main source of feeding. 7th National Symposium Oceanography and Fisheries, 6-9 May 2003, Hersonisos, Crete.
<p>Research Projects</p>	<ul style="list-style-type: none"> • “Future growth in sustainable, resilient and climate friendly organic and conventional European Aquaculture” (FutureEUAqua): Horizon 2020 BG-2018. (Dr. Åsa Maria O. Espmark, Nofima). • “Translating knowledge for legume-based farming for feed and food systems” (Legumes Translated): Horizon 2020 RUR-2017 (Dr Jens Dauber, Johann Heinrich von Thuenen – Institut). • "SUStainable production of High quality aquaculture FISH using innovative tools and production strategies and integrating novel processing methods and cold chain management" SUSHIFISH: ERANET-COFASP 2016-2019. (Dr

Adelino V. M. Canario, Centre of Marine Science, University of Algrave).

- “Cardioprotective properties of farming gilthead sea bream enriched with biologically active lipids from olive oil by-products”: National Funding MIS: 5031794, 2014 - 2020. (Dr Smaragdi Antonopoulou, Harokopio University of Athens).
- “Development of an Innovative Method of Genetic Fish Selection with improved feed efficiency”: National Funding MIS: 5010669, 2014 - 2020. (Dr Katerina Moutou, University of Thessaly).
- “Optimizing the exterior coloring of farmed red sea bream through the use of innovative nutritional approaches”: National Funding MIS: 5010684, 2014 - 2020. (Dr Michail Pavlidis, University of Crete).
- “Development of microarray PCR to determine gene changes related to seabass resistance to viral necrosis of b-nodavirus, with commercial availability” National Funding MIS: 5010925, 2014 - 2020. (Dr Vasileios Bakopoulos, University of Aegean).
- “Advanced selective breeding for robustness, disease and stress resistance in European sea bass (*Dicentrarchus labrax*) through the use of Next Generation Sequencing techniques for genetic improvement” (RobustBass): ERANET-COFASP 3rd Call (Dr Constantinos S. Tsigenopoulos, NCMR).
- “Consumer driven Production: Integrating Innovative Approaches for Competitive and Sustainable Performance across the Mediterranean Aquaculture Value Chain” (PerformFISH): Horizon 2020 (Dr Katerina Moutou, University of Thessaly).
- “Increasing the Competitiveness of Greek Fish Farming through an Innovative Genetic Selection Program in E. Sea Bass”. National Funding 2007 - 2013 (Dr Michail Pavlidis, University of Crete).
- “Development and introduction of biotechnological innovations, utilizing molecular genetic markers, in the genetic improvement of cultivated sea bream (*Sparus aurata*)”: National Funding 2007 – 2013 (Leonidas Papaharisis, Nireus Aquaculture S.A.).
- “Development of a new fishing method to meet the requirements of product quality and well-being”: National Funding 2007 – 2013 (Leonidas Papaharisis, Nireus Aquaculture S.A.).