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Nationality: Portuguese
D.O.B.: 11th May 1974

Education

1998-2003	PhD in Comparative Immunology. University of St Andrews, UK. Thesis in “Antimicrobial peptides and antibacterial proteins from rainbow trout, <i>Oncorhynchus mykiss</i> ”, supervised by Dr Valerie Jane Smith.
1997-1998	Gulbenkian’s programme for PhD in Biology and Medicine. Instituto Gulbenkian de Ciência, Portugal.
1991-1997	BEng in Chemical Engineering and Biotechnology (first with distinction). Instituto Superior Técnico, Portugal.

Employment History

2024-present	Research Professor in Multidisciplinary Sciences, Institute of Marine Sciences (ICM-CSIC), Spain
2010-2023	Professor in Genomics and Molecular Biology, Faculty of Biosciences and Aquaculture, Nord University, Norway.
2007-2010	Associate Professor in Molecular Biology. Faculty of Biosciences and Aquaculture, Nord University, Norway.
2002-2007	Research Fellow. University of St Andrews, UK.

Grants

2024-2027	HOLOSEX: A timely holoeipigenomic approach to unravel the sexual dimorphism of the immune response in fish. Spanish Ministry of Science and Innovation (317,500 EUR, Ref. PID2023-146286OB-I00). Joint project leader
2024-2027	EPIBROOD: Intergenerational epigenetic effects in Norwegian salmon aquaculture. Norwegian Seafood Research Fund (15,000,000 NOK, Ref. 901923). Work package leader.
2024-2028	BLOWOMICS: Novel perspectives on non-invasive cetacean research using microRNA biomarkers in the exhaled breath. Research Council of Norway (10,000,000 NOK, Ref. 343348). Work package leader.
2023-2024	EPISELECT: Feasibility of a multi-panel of epigenetic markers of fish growth. ERC Proof of Concept Grant . European Research Council (150,000 EUR, Ref. 101081935). Project leader .
2023-2027	EPICOD: Novel insights into the epigenetic landscape of puberty onset in Atlantic cod. Research Council of Norway, HAVBRUK programme (12,000,000 NOK, Ref. 336112). Project leader .
2023-2027	TOXIGEN: Reproductive toxicity and transgenerational effects of petroleum mixtures in fish. Research Council of Norway (12,000,000 NOK, Ref. 324768). Work package leader.
2021-2024	BREEDFLAT: New approaches on the dietary-effects in broodfish: the role of nutrition on sustainable production of flatfish. EEA and Norway Grants (755,773 EUR, Ref. PT-INNOVATION-0080). Work package leader.
2021-2025	COOLFISH: Improving Atlantic salmon health and welfare by metabolic programming. Research Council of Norway, FRIMEDBIO programme (12,000,000 NOK, Ref. 325571).
2021-2024	NORBRAQUA: Cooperation between Norway and Brazil in research and education for improved breeding in sustainable aquaculture. Research Council of Norway, INTPART programme (2,666,000 NOK, Ref. 310103). Project leader .
2019-2021	EPIFISHGROWTH: Nutrient-responsive epigenetic programming in Atlantic salmon and zebrafish muscle growth. Research Council of Norway, HAVBRUK programme (2,200,000 NOK,

	Ref. 295118).
2018-2020	EPIMARK: Commercial feasibility of a kit for the identification of epigenetic markers in farmed fish. ERC Proof of Concept Grant . European Research Council (149,203 EUR, Ref. 812986). Project leader .
2017-2021	NUTREPI: Epigenetic and transcriptional effects of optimizing 1-C nutrients to improve healthy growth in Atlantic salmon. Research Council of Norway under the HAVBRUK programme (8,000,000 NOK, Ref. 267787).
2017-2019	EPIGREEN: Nutrigenomic and nutriepigenomic effect of plant protein-based aquafeeds on fish. Research Council of Norway under the HAVBRUK programme (2,000,000 NOK, Ref. 267944).
2016-2020	MARINALGAE4AQUA: Improving bio-utilisation of marine algae as sustainable feed ingredients to increase efficiency and quality of aquaculture production. ERA-NET COFASP (EU) and Research Council of Norway (4,090,000 NOK, Ref. 260190).
2016-2022	EPIFISH: Innovative epigenetic markers for fish domestication. ERC Consolidator Grant . European Research Council (1,996,000 EUR, Ref. 683210). Project leader .
2016-2022	EPIFISH: Innovative epigenetic markers for fish domestication. Research Council of Norway under the TOPPFORSK programme (2,800,000 NOK, Ref. 250548). Project leader .
2016-2020	SAFEFISH: Implications of green fish feed for consumer safety: carry-over of plant peptides, natural toxins and bioactive compounds. Research Council of Norway under the aquaculture programme (8,800,000 NOK, Ref. 254822). Work package leader.
2015-2017	FUNGUT: Functional ontogeny and physiology of the digestive system in juvenile diploid and triploid salmon (<i>Salmo salar</i>). Funded by the Regional Research Fund RFFNORD (2,645,000 NOK, Ref. 248028). Work package leader.
2014-2017	Exosomes from salmon (<i>Salmo salar</i>) leukocytes - composition, functions, biogenesis and immunodiagnostic potential. Funded by the Research Council of Norway under the FRIMEDBIO programme (6,815,000 NOK, Ref. 230735).
2014	Probiotic supplementation on <i>Solea senegalensis</i> diet: Effects on growth performance and immune status. Aquaculture infrastructures for excellence in European fish research (AQUAEXCEL, Ref. 0112/07/04/14a).
2013	GIA2013: Genomics in Aquaculture 2013 - International Symposium at the Nord University. Grant funded by the Research Council of Norway under the BIOTEK21 programme (200,000 NOK, Ref. 227854/030). Project leader .
2013-2015	Role of small non-coding RNA in fish development: comparative study on regulatory mechanisms. FRIPRO project funded by the Research Council of Norway (4,000,000 NOK, Ref. 213825).
2012-2015	ANNOTATE: analysis of multifunctional genes and their paralogs in teleosts: identification, evolution and annotation through transcriptome scans and functional studies. Aristeia National projects, Greece (180,000 EUR, ref. ESPA2007-2013).
2011-2013	Functional tools to estimate egg quality in Atlantic salmon, with particular reference to post-ovulatory aging. Project funded by the MABIT programme, Norway (2,800,000 NOK, ref. AF0057).
2010-2013	EPISOLE: Epigenetic regulation of growth and development in Senegalese sole (<i>Solea senegalensis</i>). Project funded by the Foundation for Science and Technology, Portugal (176,000 EUR, Ref. PTDC/MAR/110547/2009). Work package leader.
2010-2013	Molecular and biochemical investigation of mechanisms of action of the 'Focus lice' concept. Project funded by BioMar AS, Norway.
2009-2012	Ecological and evolutionary responses to global warming in the seaweed <i>Fucus serratus</i> , a key foundational species in the North Atlantic. Project financed by the Research Council of Norway (265,000 EUR, Ref. 196505).
2009-2010	The role of DNA (cytosine-5)-methyltransferases in the epigenetic regulation of sexual maturation and growth in Atlantic cod. YGGDRASIL grant funded by the Research Council of Norway (Ref. 195536). Project leader .

2009-2013	GROWCOD: Impact of photoperiod and sexual maturation on growth performance of Atlantic cod - a genomic perspective. Outstanding Young Investigator Award (11,330,000 NOK in total, 7,700,000 NOK funded by the Research Council of Norway , Ref. 190350/S40). Project leader.
2008-2009	GIA2009: Genomics in Aquaculture - International symposium at Nord University. Grant funded by the Research Council of Norway (200,000 NOK, Ref. 192126/S40). Project leader.
2008-2011	MUCOCOD: Mucosal immune system of Atlantic cod - creating a knowledge base. Project financed by the Research Council of Norway (870,000 EUR, Ref. 184703). Work package leader.
2008-2011	Larval quality in aquaculture: development of knowledge and technology platforms to improve larviculture. Project funded by the Research Council of Norway (415,000 EUR, Ref. 182653). Work package leader.
2008-2011	VACCINAQUA: Indo-Norwegian platform on fish and shellfish vaccine development. Project funded by the Research Council of Norway (Ref. 183204/S40).
2008	Lysyl oxidase: a molecular marker for fillet firmness in Atlantic halibut?. Research and development grant ('Små DRIFTS') from the Research Council of Norway (7,500 EUR, Ref. 73445). Project leader.
2007-2008	Several small research and development grants (FoU) for molecular biology and genomics projects, amounting a total of 6,000 EUR. Financed by the Nord University, Norway. Project leader.
2007	Development of molecular tools to quantify gene expression in Atlantic halibut. Research and development grant ('Små DRIFTS') from the Research Council of Norway (7,500 EUR, Ref. 73410). Project leader.

Academic Awards and Distinctions

2023	Top cited article (Rehman <i>et al.</i> 2021). <i>Journal of Fish Diseases</i> , Wiley.
2023	Nominated Full Member of Sigma Xi, The Scientific Research Honor Society (USA)
2016	Annual research prize. Nord University (Norway).
2016-2018	Invited visiting Professor (University of Alexandria, Egypt).
2015	Certificate of outstanding reviewer (Elsevier).
2014	Annual research prize. Nord University (Norway).
2013	Certificate of excellence in reviewing (Elsevier).
2008 - 2010	Top cited article (Fernandes <i>et al.</i> 2008). <i>Comparative Biochemistry and Physiology</i> , Elsevier.
2008 - 2016	Invited faculty member for the doctoral programme in Cell Biology and Biotechnology (University of Messina, Italy).
2006	Honorary Professorship at the Ocean Research Institute (The University of Tokyo, Japan).
1997 - 2001	PhD degree financed by a scholarship Praxis XXI (ref. BD/18583/98) from the Fundação para a Ciência e Tecnologia (Portugal) and from the Instituto Gulbenkian de Ciência (Gulbenkian Foundation, Portugal).
1996	Honours project supported by an Erasmus fellowship from the Portuguese Government (Junta Nacional de Investigação Científica e Tecnológica, Portugal).

Administrative Positions

2022	Scientific committee, 4 th Congress of the International Society of Fish & Shellfish Immunology, 12-15 December 2022 (Bodø, Norway)
2021 - 2022	Coordinator for Internationalisation, Faculty of Biosciences and Aquaculture (Nord University, Norway).
2020 - present	Scientific Advisory Panel member (Norwegian Seafood Research Fund, Norway)
2019-2022	College of Expert Reviewers (European Science Foundation, France)
2018	Selection of student abstracts for the Aquaculture America 2019 meeting (New Orleans, USA).

2018	Member of the working group to evaluate the current and future zebrafish facility at Nord University (Bodø, Norway).
2017	Co-organiser of the special session Epigenetics in Aquaculture at the Aquaculture Europe 2017 international meeting (Dubrovnik, Croatia).
2017	Organiser of the special session Genomics in Aquaculture at the Aquaculture Europe 2017 international meeting (Dubrovnik, Croatia).
2015	Abstract selection committee of the conference Epigenetics and Periconception Environment (Hersonissos, Greece).
2014 - 2015	Member of the steering committee for biological safety (Nord University, Norway).
2013	Scientific committee of the conference Epigenetics for Improved Food Production: From Model to Practice (Barcelona, Spain).
2012 - 2016	Management committee of the COST Action FA1201, Epigenetics and Periconception Environment - Periconception environment as an epigenomic lever for optimising food production and health in livestock (EU).
2012 - 2015	Member of the Faculty of Biosciences and Aquaculture management team (Nord University, Norway).
2012 - 2015	Leader of the Marine Genomics research group (Nord University, Norway).
2012 - 2018	Leader of the Aquaculture Genomics research unit (Nord University, Norway).
2011 - 2012	Member of the committee for restructuring the BSc degrees at the Faculty of Biosciences and Aquaculture (Nord University, Norway).
2009 - present	Founder of the biennial international symposium <i>Genomics in Aquaculture</i> .

Teaching Experience

2016-2017	Lecturer in 'Biotechnology' (BI228F), Nord University, Norway.
2012-2014	Coordinator of the 'Scientific Communication and Research Methods' course (BI300F), Nord University, Norway.
2009-2012	Lecturer in 'Molecular Population Genetics of Aquaculture Species' (AK406F), as part of the PhD in Aquaculture, Nord University, Norway.
2009-2012	Lecturer for the PhD course 'Development Biology of Aquatic Animals' (AK407F), Nord University, Norway.
2008-2024	Coordinator of the course 'Aquatic Genomics and Bioinformatics' (BI311F) for the MSc in Aquaculture, Nord University, Norway.
2008-2011	Lecturer in 'Aquaculture Practices and Principles' (AK303F) as part of the MSc in Aquaculture, Nord University, Norway.
2008-2016	Lecturer in 'Molecular Ecology' (BI214F) for the MSc in Aquaculture, Nord University, Norway.
2007-2015	Lecturer in 'Cellular and Molecular Biology' (BI210F) for the BSc course, Nord University, Norway.
2001-2003	Teaching Assistant in "Numerical Skills and Statistics", Access Summer School. University of St Andrews, UK.
2000-2002	Teaching Assistant in "Molecular Biology", "Cellular and Molecular Medicine", "Quantitative Methods in Biology" & "Animal Diversity" modules. University of St Andrews, UK.

Supervision Experience in Advanced Training

Post-doctoral fellows and visiting research associates

41. Ms Janaína Valandro (2024), EMBRAPA, Brazil.
40. Ms Elisa Samori (2023), University of Murcia, Spain.
39. Mr Alexandros Tsakogiannis (2023), University of the Algarve, Portugal.
38. Ms Lorena Rudnik (2023), State University of Londrina, Brazil.
37. Ms Myrian Hidalgo (2023), State University of Londrina, Brazil.

36. Mr Peter Palma (2023), University of Stirling, UK.
35. Mr Vinicius Silva (2023), State University of Londrina, Brazil.
34. Ms Karine Sequeira (2022), State University of Londrina, Brazil.
33. Mr Renan Appel (2022-2023), State University of Londrina, Brazil.
32. Mr Marco Albano (2022), University of Messina, Italy.
31. Mr Kristian Riolo (2022), University of Messina, Italy.
30. Dr Ioannis Konstantinidis (2020-present), Nord University, Norway.
29. Ms Joana Firmino (2020), Universitat Autònoma de Barcelona (Spain): RNA-seq technology for aquaculture research.
28. Dr Ignacio Fernandez (2020), Centro de Investigación en Acuicultura, Spain: miRNA expression and nutritional requirements of fat-soluble vitamins in fish
27. Ms Amanda López-Cánovas (2019), University of Murcia, Spain: integration of natural substances in different experiments to improve animal welfare and extend the shelf life of farmed Nile tilapia and Atlantic salmon.
26. Mr Darshan Young (2020), Norwegian University of Life Sciences, Norway: microinjection of CRISPR constructs in Nile tilapia embryos.
25. Mr Hanlin Xu (2020), Universidad de Las Palmas de Gran Canaria, Spain: miRNA profiling of seabream broodstock with different nutritional backgrounds.
24. Dr Igo Guimarães (2019), Universidade Federal de Goiás, Brazil: Hydroxymethylation profiles during early development in zebrafish.
23. Dr Anne-Catrin Adam (2019), Institute of Marine Research, Norway: Effect of parental dietary micronutrient status on the offspring muscle transcriptome.
22. Dr Artem Nedoluzhko (2018-2022), Nord University, Norway: circRNAs involved in Nile tilapia domestication.
21. Mr Fernando Paredes (2019-2020), University of Murcia, Spain: Oocyte rhythmicity and daily rhythms of *in vitro* fertilization in zebrafish.
20. Ms Rina Miyashita (2018-2019), The University of Tokyo, Japan: Genome-wide DNA methylation differences between wild and domesticated Nile tilapia.
19. Ms Maryam Pourmoghdam (2018), University of Tehran, Iran: Identification of SNPs associated with improved growth in Nile tilapia.
18. Mr Omid Jafari (2018), Gorgan University of Agricultural Sciences and Natural Resources, Iran: Signatures of selection during Nile tilapia domestication.
17. Dr Jorge Galindo-Villegas (2018-present), Nord University, Norway: Innovative epigenetic markers for fish domestication.
16. Mr Xianquan Chen (2017-2018), Sun Yat-Sen University, China: Epigenetic changes in muscle of zebrafish fed with plant protein ingredients.
15. Dr Anusha Dhanasiri (2017-2019), Nord University, Norway: Nutrigenomic and nutriepigenomic effect of plant protein-based aquafeeds on fish.
14. Mr André Santos (2016), Sparos SA, Portugal: Molecular analyses of dietary effects in Atlantic salmon.
13. Dr Tomasz Podgorniak (2016-2019), Nord University, Norway: Innovative epigenetic markers for fish domestication.
12. Dr Siu Shan Mak (2016-2017), Nord University, Norway: Innovative epigenetic markers for fish domestication.
11. Dr Sofia Engrola (2015), Centre of Marine Sciences, Portugal: Epigenetic regulation of protein accretion pathways. COST Epiconcept
10. Dr Ignacio Fernandez (2015), Centre of Marine Sciences, Portugal: Unveiling the underlying pathways of vitamin K requirements for fish gametogenesis. COST Aquagamete.
9. Ms Patricia Pereiro (2014), Institute of Marine Research (CSIC), Spain: Epigenetic regulation of the immune system in zebrafish.
8. Dr Alessio Alesci (2012), University of Messina, Italy: Hyperpolarization-activated cyclic nucleotide-gated channel genes in *Gadus morhua* and *Pollachius virens*.

7. Dr Kitani Yoichiro (2011-2012), Nihon University, Japan: Mucosal antibacterial proteins of cold water fish. Co-supervisor.
6. Dr Lech Kirtiklis (2010), University of Warmia and Mazury, Poland: Identification of oestrogen receptors in Atlantic cod (*Gadus morhua*).
5. Dr Kazue Nagasawa (2009-2013), Nord University, Norway: Impact of photoperiod and sexual maturation on growth performance of Atlantic cod - a genomic perspective.
4. Dr Alessia Giannetto (2009-2010), University of Messina, Italy: The role of DNA (cytosine-5)-methyltransferases in the epigenetic regulation of sexual maturation and growth in Atlantic cod. YGGDRASIL grant, Research Council of Norway
3. Mr Spyros Kollias (2009-2010), University of Crete, Greece: Developmental expression of genes involved in the hypoxic response of sea bass (*Dicentrarchus labrax*).
2. Ms Chiara Gambardella (2009), University of Messina, Italy: Characterization of leptin and its receptor in sea bass (*Dicentrarchus labrax*).
1. Professor P. Wright (2005), University of Guelph, Canada: Characterization of PGC-1 α during early development in zebrafish.

PhD theses

40. Ms Ana Claro (2025-present). Co-supervisor of the thesis provisionally entitled 'Investigating the interplay between poultry-based hydrolysates and epigenetic regulation in fish, under a climate change scenario'. University of Porto, Portugal
39. Ms Sandra López (2025-present). Co-supervisor of the thesis provisionally entitled 'Deciphering the role of sex in the fish immune system'. Institute of Marine Sciences, Spain.
38. Ms Dana Silva (2024-present). Supervisor of the thesis provisionally entitled 'Impact of photoperiod on the epi- and metagenomes in Atlantic cod'. Institute of Marine Sciences, Spain.
37. Mr Lorenzo Colonna (2024-present). Supervisor of the thesis provisionally entitled 'Transcriptional and epigenetic mechanisms of growth and sexual maturation in Atlantic cod subjected to photoperiod manipulation'. Nord University, Norway.
36. Ms Abigail Chapman (2023-present). Co-supervisor of the thesis provisionally entitled 'Multigenerational effects of exposure to crude oil on the Arctic keystone species *Boreogadus saida* and *Gadus morhua*, and the model *Danio rerio*'. University of Tromsø, Norway.
35. Mr Soumitra Chowdhuri (2022-present). Co-supervisor of the thesis provisionally entitled 'Mitochondria in zebrafish - Decoding the link to microorganism and inflammation'. Nord University, Norway.
34. Mr Renan Appel (2022-2025). Supervisor of the thesis entitled 'Comparative analysis of pathogenicity among *Streptococcus agalactiae* serotypes in Nile tilapia: Exploring strain diversity, host immune response and epigenetic regulation during infection'. Nord University, Norway.
33. Ms Helena Costa (2021-present). Co-supervisor of the thesis provisionally entitled 'Assessment of contaminant exposure and health effects in the northern Atlantic humpback whale (*Megaptera novaeangliae*)'. Nord University, Norway.
32. Mr Partha Tripathy (2021-present). Supervisor of the thesis provisionally entitled 'Mitochondrial epigenetics in fish'. Nord University, Norway.
31. Mr Tiago Lopes (2021-present). Supervisor of the thesis provisionally entitled 'Lumpfish stress response characterization, health and welfare improvement through nutritional management and selective breeding'. Nord University, Norway.
30. Mr Aruna Shankregowda (2019-2025). Co-supervisor of the thesis provisionally entitled 'Genetic and non-genetic adaptation in stickleback fishes'. Nord University, Norway.
29. Mr Likith Pinninti (2019-2023). Co-supervisor of the thesis entitled "Biosystematics and evolutionary genomics of deep-sea fish (lumpsuckers, snailfishes, and sculpins) (Perciformes: Cottoidei)". Nord University, Norway.
28. Mr Golam Rbbani (2018-2023). Supervisor of the thesis entitled 'Characterization of circular RNAs in Nile tilapia and thermal modulation of their expression'. Nord University, Norway.

27. Mr Adnan Gora (2018-2023). Co-supervisor of the thesis entitled 'Insights from a zebrafish model to combat dyslipidemia using microbe-derived bioactive compounds'. Nord University, Norway.
26. Ms Saima Rehman (2018-2023). Co-supervisor of the thesis entitled 'Elucidating diet-induced inflammation in zebrafish and its alleviation by functional oligo- and polysaccharides'. Nord University, Norway.
25. Ms Leona Milec (2018-present). Co-supervisor of the thesis provisionally entitled 'Population genomics and phylogenomics of freshwater sardines in Central/East-African lakes'. Nord University, Norway.
24. Mr Yousri Abdelhafiz (2018-2022). Co-supervisor of the thesis entitled 'Insights into the bacterial communities of Nile tilapia – core members and intergenerational transfer'. Nord University, Norway.
23. Mr Park Youngjin (2017-2021). Co-supervisor of the thesis entitled 'Transcriptomic and cellular responses in the intestine of Atlantic salmon'. Nord University, Norway.
22. Ms Amritha Johny (2017-2020). Co-supervisor of the thesis entitled 'Implications of green fish feed for consumer safety: carry-over of plant peptides, natural toxins and bioactive compounds'. University of Life Sciences, Norway.
21. Mr Ioannis Konstantinidis (2016-2020). Supervisor of the thesis entitled 'DNA hydroxymethylation and improved growth of Nile tilapia (*Oreochromis niloticus*) during domestication'. Nord University, Norway.
20. Ms. Shruti Gupta (2015-2019). Co-supervisor of the thesis entitled 'Feed additives elicit changes in the structure of the intestinal bacterial community of Atlantic salmon'. Nord University, Norway.
19. Mr Qirui Zhang (2014-2019). Supervisor of the thesis entitled 'The effect of embryonic incubation temperature on the immune response of larval and adult zebrafish (*Danio rerio*)'. Nord University, Norway.
18. Mr Prabhugouda Siriappagoudar (2014-2018). Supervisor of the thesis entitled 'The intestinal mycobiota of zebrafish - community profiling and exploration of the impact of yeast exposure early in life'. Nord University, Norway.
17. Mr Christopher Presslauer (2013-2017). Co-supervisor of the thesis entitled 'Comparative and functional analysis of microRNAs during zebrafish gonadal development'. Nord University, Norway.
16. Mr Lokesh Jeppinamogeru (2013-2016). Co-supervisor of the thesis entitled 'Microbiota of Atlantic salmon (*Salmo salar* L.) during their early and adult life'. Nord University, Norway.
15. Ms Eliza Kaitetidou (2012-2019). Co-supervisor of the thesis entitled 'Identification, molecular characterization and functional role of orthologous and paralogous genes in different fish species'. University of Thessaloniki, Greece.
14. Ms Sonia Batista (2011-2016). Co-supervisor of the thesis entitled 'Use of probiotics in sole (*Solea senegalensis*) diets: Effects on growth performance, host defense, morphology and ecology of the digestive tract'. University of Porto, Portugal. **(Graduated with distinction)**
13. Ms Giulia Micallef (2010-2014). Co-supervisor of the thesis entitled 'Understanding the molecular basis of dietary protection against sea lice *Lepeophtheirus salmonis* in Atlantic salmon *Salmo salar* - application of proteomics and transcriptomics'. University of Aberdeen, UK.
12. Mr Carlo Lazado (2010-2014). Supervisor of the thesis entitled 'Molecular basis of daily rhythmicity in fast skeletal muscle of Atlantic cod (*Gadus morhua*)'. Nord University, Norway.
11. Alexander Jüterbock (2010-2013). Co-supervisor of the thesis entitled 'Climate change impact on the seaweed *Fucus serratus*, a key foundational species on North Atlantic rocky shores'. Nord University, Norway.
10. Ms Joanna Babiak (2009-2014). Supervisor of the thesis entitled 'Induced masculinization of Atlantic halibut (*Hippoglossus hippoglossus* L.): towards the goal of all-female production'. Nord University, Norway.
9. Ms Catarina Campos (2008-2013). Supervisor of the thesis entitled 'Thermal epigenetic regulation of muscle growth and development in the Senegalese sole (*Solea senegalensis* Kaup, 1858)'. University of Porto, Portugal. **(Graduated with distinction)**
8. Ms Anusha Dhanasiri (2008-2013). Co-supervisor of the thesis entitled 'Transport-related stress in zebrafish: physiological responses and bioremediation'. Nord University, Norway.
7. Mr Binoy Rajan (2009-2013). Co-supervisor of the thesis entitled 'Proteomic characterization of Atlantic cod skin mucosa - emphasis on innate immunity and lectins'. Nord University, Norway.
6. Mr Arvind Sundaram (2009-2012). Supervisor of the thesis entitled 'Understanding the specificity of the innate immune response in teleosts: characterisation and differential expression of teleost-specific toll-like receptors and microRNAs'. Nord University, Norway.

5. Mr Teshome Bizuayehu (2008-2012). Co-supervisor of the thesis entitled 'miRNAs from Atlantic halibut and Atlantic cod'. Nord University, Norway.
4. Mr Carlos Lanes (2008-2012). Co-supervisor of the thesis entitled 'Comparative studies on the quality of eggs and larvae from broodstocks of farmed and wild Atlantic cod'. Nord University, Norway.
3. Mr Naveed Yousaf (2009-2012). Co-supervisor of the thesis entitled 'Characterization of the cardiac pacemaker and pathological responses to cardiac diseases Atlantic salmon (*Salmo salar*)'. Nord University, Norway.
2. Ms Jareeporn Ruangsri (2007-2012). Supervisor of the thesis entitled 'Characterization of antimicrobial peptides in Atlantic cod'. Nord University, Norway.
1. Ms Maren Mommens (2007-2011). Co-supervisor of the thesis entitled 'Maternal RNAs and larval quality in Atlantic halibut (*Hippoglossus hippoglossus*)'. University of St Andrews, UK.

MSc theses

21. Ms Fatimah Diab (2020-2024). Main supervisor of the thesis entitled 'Maternal and paternal contribution to the zygote circRNAome in zebrafish'. Nord University, Norway.
20. Mr Hans Ekvall (2020-2021). Main supervisor of the thesis entitled 'Exploring epigenetic resistance to infectious salmon anaemia in Atlantic salmon by genome-wide bisulfite sequencing in heart tissue'. Norwegian University of Life Sciences, Norway.
19. Mr Riaz Murshed (2020-present). Supervisor of the thesis entitled 'Profile of immune-related circRNAs in Nile tilapia'. Nord University, Norway.
18. Mr Soumitra Chowdhury (2018-2020). Co-supervisor of the thesis entitled 'Molecular studies on microorganisms isolated from fish intestine'. Nord University, Norway.
17. Ms Ramsha Iqbal (2018-2023). Supervisor of the thesis entitled 'Changes of fast muscle cellularity in male and female Nile tilapia (*Oreochromis niloticus*) over three generations of domestication'. Nord University, Norway.
16. Mr Alex Wardale (2017-2019). Supervisor of the thesis entitled 'Circulating miRNAs as potential non-invasive biomarkers of growth in Nile tilapia (*Oreochromis niloticus*)'. Nord University, Norway.
15. Mr Derrick Kwame Odei (2015-2018). Supervisor of the thesis entitled 'Dietary effects on myotomal enzymes and liver transcriptome of triploid and diploid Atlantic salmon during ontogeny'. Nord University, Norway.
14. Ms Mariia Bogdanova (2014-2016). Supervisor of the thesis entitled 'Thermal plasticity of the miRNA transcriptome in head kidney of zebrafish (*Danio rerio*)'. Nord University, Norway.
13. Ms Iuliia Belova (2013-2015). Supervisor of the thesis entitled 'Nutritional programming in lumpsucker, *Cyclopterus lumpus* - a transcriptomic approach'. Nord University, Norway.
12. Ms Anastasia Pesiakova (2013-2015). Supervisor of the thesis entitled 'Thermal plasticity of mRNA and miRNA expression in zebrafish (*Danio rerio*) fast muscle'. Nord University, Norway.
11. Ms Irina Shcherbakova (2013-2015). Supervisor of the thesis entitled 'Effect of temperature in zebrafish muscle and associated changes in DNA methylation patterns'. Nord University, Norway.
10. Ms Ghana V. Kalerammanna (2011-2013). Co-supervisor of the thesis entitled 'Effect of probiotics on intestinal inflammation in Atlantic salmon'. Nord University, Norway.
9. Ms Anna Abramova Alexandrovna (2011-2013). Co-supervisor of the thesis entitled 'Effect of temperature on microRNA expression in the liver of Atlantic cod'. Nord University, Norway.
8. Ms Chinmayee Das (2010-2012). Co-supervisor of the thesis entitled 'Immune relevant cells and molecules in intestine of Atlantic cod (*Gadus morhua*)'. Nord University, Norway.
7. Ms Elena Morozova (2010-2012). Co-supervisor of the thesis entitled 'Expression of androgen receptor, anti-Müllerian hormone, and fushi tarazu factor-1 in sex reversed Atlantic halibut (*Hippoglossus hippoglossus* L.)'. Nord University, Norway.
6. Ms Hiruni Kumaratunga (2010-2012). Supervisor of the thesis entitled 'Molecular regulation of circadian clocks in fast muscle of Atlantic cod, *Gadus morhua*'. Nord University, Norway.
5. Mr Christopher Presslauer (2009-2011). Co-supervisor of the thesis entitled 'Formation and migration of primordial germ cells in Atlantic cod'. Nord University, Norway.

4. Mr Lokesh Jeppinamogeru (2009-2011). Co-supervisor of the thesis entitled 'Transcription analysis of selected cytokine genes in the intestine of Atlantic cod'. Nord University, Norway.
3. Ms Divya Vate (2009-2011). Co-supervisor of the thesis entitled 'Regulation of chaperone molecules HSP70 (HSPA1A) and HSP90- α in mucosal tissues of Atlantic cod'. Nord University, Norway.
2. Mr Roman Alexandrov (2008-2011). Supervisor of the thesis entitled 'Characterization of lysyl oxidase in Atlantic cod and investigation of its potential as molecular marker of fillet firmness'. Nord University, Norway.
1. Mr Pongsaton Juntarut (2008-2010). Supervisor of the thesis entitled 'Synergistic activity of Atlantic cod (*Gadus morhua* L.) piscidin with other antibiotic agents'. Nord University, Norway.

BSc theses

13. Mr Jonas Rudolph (2022), City University of Applied Sciences, Germany: Testing different microalgae-containing feeds for Atlantic salmon farming. ERASMUS (EU)
12. Mr Anders Solberg (2019-2020), Nord University, Norway: The importance of environmental regulation of DNA methylation in fish.
11. Ms Tine (2018-2019), Embryonic development of polar cod (*Boreogadus saida*) in a changing Arctic: the potential impact of petroleum and temperature on the microRNA transcriptome. ERASMUS (EU)
10. Ms Caroline Pohlmann (2018), Bremen University of Applied Sciences, Germany: Comparison of hydroxymethylation (5hmC) profiles between sperm and zygote in tilapia. ERASMUS (EU)
9. Ms Thomais Tsoulia (2018), Aristotle University of Thessaloniki, Greece: Molecular basis of environmental and nutritional effects on fish growth. ERASMUS (EU)
8. Mr Hannes Liedtke (2018), Bremen University of Applied Sciences, Germany: Differential hydroxymethylation (5hmC) profiles between unfertilised and fertilised eggs in Nile tilapia. ERASMUS (EU)
7. Mr Hans Ekvall (2017-2018), Nord University, Norway: Growth associated DNA methylation and hydroxymethylation profiles of the Nile tilapia (*Oreochromis niloticus*) pituitary uncover potential epigenetic markers
6. Mr Sven Brockmann (2017), Bremen University of Applied Sciences, Germany: A methylome map of fast muscle in Nile tilapia. ERASMUS (EU)
5. Mr Stylianos Karapanagiotis (2016), Aristotle University of Thessaloniki, Greece: Characterization of hyperpolarization-activated, cyclic AMP-gated channel genes in Atlantic cod. ERASMUS (EU)
4. Mr Alex Wardale (2016), Alicante University, Spain: miRNA profiling of miRNAs in Nile tilapia muscle. ERASMUS (EU)
3. Mr Gioele Capillo (2012), University of Messina, Italy: Hyperpolarization-activated cyclic nucleotide-gated channel genes in *Gadus morhua* and *Pollachius virens*.
2. Ms Eduarda Cabral (2011), University of Porto, Portugal: Modulation of flesh quality in cultivated *Solea senegalensis*, Kaup 1858". COST Larvanet
1. Ms S. Steele (2005-2006), University of Guelph, Canada: Thermal plasticity of *MyoG* and *FoxK1* expression during fish development.

Examiner of MSc and PhD theses

PhD theses

25. Mr Dominic Mensah. Thesis entitled "Novel diets and fish health: evaluating the immuno- nutritional impact of filamentous fungus *Paecilomyces variotii* in aquafeeds for Atlantic salmon (*Salmo salar*)". Norwegian University of Life Sciences, February 2025
24. Ms Ania Rashidpour. Thesis entitled "Control of the expression of key genes to spare protein and increase the use of dietary carbohydrates in gilthead sea bream (*Sparus aurata*)". University of Barcelona, September 2024.
23. Mr Shahmir Naseer. Thesis entitled "Promoting healthy fish in aquaculture by genome-wide functional annotation of immune responses". University of Aberdeen, October 2023.
22. Ms Núria Sánchez Baizán. Thesis entitled "Development of DNA methylation biomarkers to study epigenetic inheritance and integration of environmental stimuli". University of Barcelona, October 2023.

21. Mr Swapnil Gorakh Waghmare. Thesis entitled "Fish oocyte ageing and histone modifications". University of South Bohemia, Czech Republic, March 2022.
20. Mr Juan Fernando Paredes Salas. Thesis entitled "Daily rhythms of reproduction and lipid metabolism in teleost: Influence of environmental and feeding cycles". University of Murcia, Spain, December 2019.
19. Ms Elisavet Kaitetzidou. Thesis entitled "Annotation, molecular characterization and functional study of orthologous and paralogous genes in different fish species". University of Thessaloniki, Greece, October 2019.
18. Mr Carmelo Iaria. Thesis entitled "Emerging diseases of aquatic organisms". University of Messina, Italy, October 2019.
17. Ms Lene Sveen. Thesis entitled "Aquaculture relevant stressors and their impacts on skin and wound healing in post-smolt Atlantic salmon (*Salmo salar* L.)". University of Bergen, Norway, November 2018.
16. Mr Erik Kjærner-Semb. Thesis entitled "Genetics behind puberty and adaptation in Atlantic Salmon revealed by genomic studies". University of Bergen, Norway, October 2017.
15. Mr Runar Solstad. Thesis entitled "Discovery of antimicrobial peptides in two marine invertebrates, the sea anemone *Urticina eques* and the sea urchin *Echinus esculentus*". University of Tromsø, Norway, December 2016.
14. Ms Dafni Anastasiadi. Thesis entitled "Intrinsic and environmental influences on DNA methylation and gene expression in fish". Pompeu Fabra University, Spain, November 2016.
13. Mr Paolo Ronza. Thesis entitled "Enteromixosis in turbot: host-pathogen interaction and immune response". University of Santiago de Compostela, Spain, May 2016.
12. Ms Filipa Rocha. Thesis entitled "Early nutritional programming in fish: tailoring the metabolic use of dietary carbohydrates". University of Algarve, Portugal, November 2015.
11. Ms Ambrogina Albergamo. Thesis entitled "Integrating omic technologies into aquatic ecological risk assessment and biomonitoring". University of Messina, Italy, February 2015.
10. Ms Adrijana Škugor. Thesis entitled "Transcriptional profiling of maternally deposited factors in Atlantic cod (*Gadus morhua*) embryos and the role of Dead end in primordial germ cell development". Norwegian University of Life Sciences, Norway, June 2013.
9. Ms Kaja Skjærven. Thesis entitled "Effects of thermal stress on the methylation and expression of maternal and zygotic genes in Atlantic cod (*Gadus morhua*) embryos". National Institute of Nutrition and Seafood Research, Norway, October 2012.
8. Ms Dawn Shewring. Thesis entitled "Fish antimicrobial peptides and the identification of cathelicidins". University of Aberdeen, UK, December 2011.
7. Ms Ragna Breines. Thesis entitled "Gadidae mitogenomics: molecular characterization and phylogeny based on complete mtDNA sequences". University of Tromsø, Norway, May 2011.
6. Mr Carlo Lo Presti. Thesis entitled "Morphological and molecular analyses of Mediterranean pagurids". University of Messina, Italy, March 2011.
5. Mr Alessandro Saccà. Thesis entitled "Carbon flow across microbial and metazoan trophic networks in stratified aquatic environments". University of Messina, Italy, March 2011.
4. Mr Francesco Iacono. Thesis entitled "New aspects in environmental biomonitoring: a metabolomic approach". University of Messina, Italy, March 2011.
3. Ms Elena de Domenico. Thesis entitled "Ecotoxicological effect of contaminated sediments on seabass, *Dicentrarchus labrax*". University of Messina, Italy, March 2011.
2. Ms Chiara Gambardella. Thesis entitled "Neuroendocrine regulation of compensatory growth in the sea bass *Dicentrarchus labrax*". University of Messina, Italy, March 2011.
1. Mr Sigmund Sperstad. Thesis entitled "Characterisation of antimicrobial peptides from the spider crab, *Hyas araneus* (Crustacea, Decapoda)". University of Tromsø, Norway, June 2009.

MSc theses

15. Mr Ikram Khan. Thesis entitled "Studies on culturable yeast communities in the intestine of three teleost fish species". Nord University, Norway, March 2020.
14. Mr Ali Shayaa. Thesis entitled "Evaluation of phenotypic plasticity of some striped red mullet (*Mullus surmuletus*) population". Alexandria University, Egypt, April 2018.

13. Mr Francis Sarfo. Thesis entitled "Macroalga-derived alginate as a feed additive for Atlantic salmon". Nord University, Norway, June 2017.
12. Mr Erik Bergseth. Thesis entitled "Characterization and expression analysis of microRNAs during embryonic development of Siberian sturgeon (*Acipenser baerii*)". Nord University, Norway, June 2015.
11. Mr Arseny Dubin. Thesis entitled "Molecular characterization of the deepwater sea anemone *Protanthea simplex* reveals true novel features in mitogenome organization". Nord University, Norway, June 2015.
10. Ms Alisa Kravtcova. Thesis entitled "Mitogenomic analyses of the two cold-water octocorals *Alcyonium digitatum* and *Primnoa resedaeformis*". Nord University, Norway, June 2015.
9. Mr Dang Hieu. Thesis entitled "Influence of probiotics on vaccine efficacy in Atlantic salmon (*Salmo salar*)". Nord University, Norway, June 2014.
8. Ms Maria Stavarakaki. Thesis entitled "Ballan wrasse (*Labrus bergylta*) larvae and live-feed quality; effects on growth and expression of genes related to mitochondrial functions". Norwegian University of Science and Technology, Norway, August 2013.
7. Mr Martin Berg. Thesis entitled "The effect of different live prey types on growth and muscle development, in ballan wrasse (*Labrus bergylta*, Ascanius 1767) larvae". Norwegian University of Science and Technology, Norway, November 2012.
6. Ms Maren Ranheim Gagnat. Thesis entitled "The effect of different live feed on the early growth and development of ballan wrasse (*Labrus bergylta* Ascanius, 1767) larvae and its organs". Norwegian University of Science and Technology, Norway, September 2012.
5. Mr Martin Davidsen. Thesis entitled "The effects of temperature on embryonic development in European eel (*Anguilla anguilla*) and muscle growth in yolksac larvae". Norwegian University of Science and Technology, Norway, September 2012.
4. Ms Rita Azeredo. Thesis entitled "Testosterone in feedback control in Atlantic cod ovulation – the effect of an extra-dose". National Institute of Nutrition and Seafood Research, Norway, June 2012.
3. Mr Truls Wergeland Hansen. Thesis entitled "Genetic ontogeny of pancreatic enzymes in ballan wrasse (*Labrus bergylta*) larvae and the effect of feed type on enzyme activity". National Institute of Nutrition and Seafood Research, Norway, June 2012.
2. Ms Christine Kurki Halseth. Thesis entitled "Effects of live feed quality on cod (*Gadus morhua* L.) larval muscle growth and development". Norwegian University of Science and Technology, Norway, December 2011.
1. Ms Anushika Gamage. Thesis entitled "The specific status and phylogeny of *Podabacia* (Scleractinia) morphospecies in southern Sri Lankan waters investigated using molecular genetic analyses". Nord University, Norway, August 2009.

Books and book chapters

6. Fernandes J.M.O., Nedoluzhko A.V., Konstantinidis I. & Gavaia P. (2023). Epigenetics in fish growth in **Epigenetics in Aquaculture**, ISBN 9781119821915. Edited by Piferrer F. & Wang H.P. John Wiley and Sons Ltd (Chichester, UK), pp 209-230.
5. Fernández I.M. & **Fernandes J.M.O.**, eds (2021). Cellular and Molecular Approaches in Fish Biology, ISBN 9780128222744. Academic Press/ Elsevier (UK).
4. Toledo-Solís F.J., **Fernandes J.M.O.**, Sarropoulou E. & Fernández I. (2021). Non-coding RNAs in fish physiology and development: miRNAs as a cornerstone in gene networks in **Cellular and Molecular Approaches in Fish Biology**, ISBN 9780128222744. Edited by Fernández I.M. & **Fernandes J.M.O.** Academic Press/ Elsevier (UK), pp. 105-146.
3. Zaccane G., Dabrowski K., Hedrick M.S., **Fernandes J.M.O.**, Jose M. Icardo J.M., eds (2015). Phylogeny, Anatomy and Physiology of Ancient Fishes, ISBN 9781498707558. CRC Press (USA).
2. Nagasawa K., Lazado C. & **Fernandes J.M.O.** (2012). Validation of endogenous reference genes for qPCR quantification of muscle transcripts in Atlantic cod subjected to different photoperiod regimes in **Aquaculture** Vol. 1, ISBN 978-9533079745. Edited by Muchlisin Z.A. InTech (Croatia), pp. 81-92.
1. Smith V.J. & **Fernandes J.M.O.** (2009). Antimicrobial peptides of the innate immune system in **Fish Defenses** Vol. 1, ISBN 978-1578083275. Edited by Zaccane G., Marchalonis J.J., Schluter S.F., Meseguer J. & Kapoor B.G. Science Publishers (USA), pp 241–276.

165. Saito T., Espe M., Mommens M., Bock C., Fernandes J.M.O. & Skjærven K.H. (2025). Altered spawning seasons of Atlantic salmon broodstock transcriptionally and epigenetically influence cell cycle and lipid-mediated regulations in their offspring. *PLoS One* 20(2): e0317770.
164. Vanhove M.P.M., Koblmüller S., **Fernandes J.M.O.**, Hahn C., Plusquin M. & Kmentová N. (2025). Cichlid fishes are promising underutilized models to investigate helminth-host-microbiome interactions. *Frontiers in Immunology* 16:1527184.
163. Appel R.J.C., Siqueira K.N., Konstantinidis I., Martins M.I.M., Joshi R., Pretto-Giordano L.G., Vilas-Boas L.A. & **Fernandes J.M.O.** (2025). Comparative transcriptome analysis reveals a serotype-specific immune response in Nile tilapia (*Oreochromis niloticus*) infected with *Streptococcus agalactiae*. *Frontiers in Immunology* 15:1528721.
162. Brand A.-F., Waugh C.A., **Fernandes J.M.O.**, Klaassen M., Wille M., Jaspers V.L.B. & Andreassen R. (2025). Circulating miRNAome of avian influenza-infected ruddy turnstones (*Arenaria interpres*). *Journal of Avian Biology*: e03404.
161. Alesci A., Marino S., Miller A., Giliberti A., Rigano G., Giuffrè L., **Fernandes J.M.O.**, Savoca S. & Capillo G. (2024). Role of mucous cells in the defence system of the cnidarian *Actinia equina* (Linnaeus, 1758): The keystone of evolution. *Acta Zoologica* doi: 10.1111/azo.12523.
160. Alesci A., Marino S., d'Iglio C., Morgante S., Miller A., Ferri J., **Fernandes J.M.O.** & Capillo G. (2024). Investigating development and defense systems in early reproductive stages of male and female gonads in black scorpionfish *Scorpaena porcus* (Linnaeus, 1758). *Biology* 13: 587.
159. Fernandes A.M., Caldutch-Giner J., Pereira G.V., Gonçalves A.T., Dias J., Johansen J., Silva T., Naya-Català F., Piazzon C., Sitjà-Bobadilla A., Costas B., Conceição L.E.C., **Fernandes J.M.O.** & Pérez-Sánchez J. (2024). Sustainable fish meal-free diets for gilthead sea bream (*Sparus aurata*): integrated biomarker response to assess the effects on growth performance, lipid metabolism, antioxidant defense and immunological status. *Animals* 14(15): 2166.
158. Lopes T., Costas B., Ramos-Pinto L., Reynolds P., Imsland A.K.D., Aragão C. & **Fernandes J.M.O.** (2024). Lumpfish physiological response to chronic stress. *Frontiers in Marine Science* 11: 1443710.
157. Rbbani G., Murshed R., Siriappagounder P., Sharko F., Nedoluzhko A., Joshi R., Galindo-Villegas J., Raeymaekers J.A.M. & **Fernandes J.M.O.** (2024). Embryonic temperature has long-term effects on muscle circRNA expression and somatic growth in Nile tilapia. *Frontiers in Cell and Developmental Biology* 12: 1369758.
156. Mechaly A.S., Awruch C., Cabrita E., Costas B., **Fernandes J.M.O.**, Gallego V., Hirt-Chabbert J., Konstantinidis I., Oliveira C., Ramos-Júdez S., Ramos-Pinto L. & Fatsini E. (2024). Cutting-edge methods in teleost and chondrichthyan reproductive biology. *Reviews in Fisheries Science & Aquaculture* 33(1): 77-112.
155. Saito T., Espe M., Vikeså V., Bock C., Thomsen T.H., Adam A.-C., **Fernandes J.M.O.**, Skjaerven K.H. (2024). One-carbon (1C) nutrients impact the interplay between DNA methylation and gene expression in liver, enhancing protein synthesis in Atlantic Salmon. *Epigenetics* 19(1): 2318517.
154. Vanhove M.P.M., Kmentová N., Faes C., **Fernandes J.M.O.**, Hahn C., Hens N., Pariselle A. & Koblmüller S. (2024). Understanding the influence of host radiation on symbiont speciation through parasites of species flocks. *Cold Spring Harbor Perspectives in Biology* 17: a041450.
153. Skjaerven K.H., Alix M., Kleppe L., **Fernandes J.M.O.**, Whatmore P., Nedoluzhko A., Andersson E., Kjesbu O.S. (2024). Ocean warming shapes embryonic developmental prospects of the next generation in Atlantic cod. *ICES Journal of Marine Science* 81(4): 733-747. **Editor's choice article**
152. Lokesh J., Siriappagounder P. & **Fernandes J.M.O.** (2024). From embryo to adult: Unravelling the temporal and spatial variations in fungal phylotypes of Atlantic salmon. *Scientific Reports* 14: 981.
151. Lopes T., Costas B., Ramos-Pinto L., Reynolds P., Imsland A.K.D. & **Fernandes J.M.O.** (2023). Exploring the effects of acute stress exposure on lumpfish plasma and liver biomarkers. *Animals* 13(23): 3623.
150. Konstantinidis I., Sætrum P., Briec M.S.O., Jakobsen K.S., Liedtke H., Pohlmann C., Tsoulia T. & **Fernandes J.M.O.** (2023). DNA hydroxymethylation differences underlie early phenotypic divergence of somatic growth in Nile tilapia reared in common garden. *Epigenetics* 18(1): 2282323.

149. Shankregowda A.M., Siriyappagounder P., Kuizenga M., Bal T.M.P., Abdelhafiz Y., Eizaguirre C., **Fernandes J.M.O.**, Viswanath K. & Raeymaekers J.A.M. (2023). Host habitat rather than evolutionary history explains gut microbiome diversity in sympatric stickleback species. *Frontiers in Microbiology* 14: 1232358.
148. Alesci A., Albano M., Fumia A., Messina E., Miller A., Fresco D., **Fernandes J.M.O.**, Spanò N., Savoca S. & Capillo G. (2023). Shell formation in two species of bivalves: the role of mantle cells and haemocytes. *Zoological Journal of the Linnean Society* 200(4): 980-993.
147. Gora A.H., Rehman S., Dias J., **Fernandes J.M.O.**, Olsvik P.A., Sørensen M. & Kiron V. (2023). Microbial oil, alone or paired with β -glucans, can control hypercholesterolemia in a zebrafish model. *BBA - Molecular and Cell Biology of Lipids* 1868(11): 159383.
146. Viswanath K., Abdelhafiz Y., Gora A.H., Rehman S., Chowdhury S., Saraswathy B., Verlhac-Trichet V.P., **Fernandes J.M.O.**, Sørensen M. (2023). Fish as the lesser-known counterpart to mammalian models to explore the biofunctionality of polyphenols. *Journal of Functional Foods* 107: 105654.
145. Sharko F., Rbbani G., Siriyappagounder P., Raeymaekers J.A.M., Galindo-Villegas J., Nedoluzhko A. & **Fernandes J.M.O.** (2023). CircPrime: a web-based platform for design of specific circular RNA primers. *BMC Bioinformatics* 24: 205.
144. Gora A.H., Rehman S., Dias J., **Fernandes J.M.O.**, Olsvik P.O., Sørensen M. & Kiron V. (2023). Protective mechanisms of a microbial oil against hypercholesterolemia: evidence from a zebrafish model. *Frontiers in Nutrition* 10: 1161119.
143. Rehman S., Gora A.H., Dias J., Abdelhafiz Y., Pierre R., **Fernandes J.M.O.**, Sørensen M., Brugman S. & Kiron V. (2023). Potential of algae-derived alginate oligosaccharides and β -glucan to counter inflammation in adult zebrafish intestine. *Frontiers in Immunology* 14: 1183701.
142. Rbbani G., Nedoluzhko A., Siriyappagounder P., Sharko F., Raeymaekers J.A.M., Galindo-Villegas J., Joshi R. & **Fernandes J.M.O.** (2023). The novel circular RNA CircMef2c is positively associated with muscle growth in Nile tilapia. *Genomics* 115(3): 110598.
141. Pinninti L.R., Maurstad M.F., Hoff S.N.K., Kristensen T., Noble L.R., Jentoft S. & **Fernandes J.M.O.** (2023). The complete mitochondrial genome of the Atlantic spiny lump sucker *Eumicrotremus spinosus* (Fabricius, 1776). *Mitochondrial DNA Part B* 8(3): 364-367.
140. Konstantinidis I., Sætrom P. & **Fernandes J.M.O.** (2023). Genome-wide hydroxymethylation profiles in liver of Nile tilapia with distinct growth performance. *Scientific Data* 10: 114.
139. Zaccone G., Alesci A., Mokhtar D.M., Aragona M., Guerrera M.C., Capillo G., Albano M., **Fernandes J.M.O.**, Viswanath K., Sayed R.K.A., Hussein M.M., Lo Cascio P., Kuciel M., Zuwala K., Germanà A., Icardo J.M. & Lauriano E.R. (2023). Localization of acetylcholine, alpha 7-nAChR and the antimicrobial peptide piscidin 1 in the macrophages of fish gut: Evidence for a cholinergic system, diverse macrophage populations and polarization of immune responses. *Fishes* 8: 43.
138. Boulygina E., Sharko F., Cheprasov M., Gladysheva-Azgari M., Slobodova N., Tsygankova S., Rastorguev S., Grigorieva L., Kopp M., **Fernandes J.M.O.**, Novgo-Rodov G., Boeskorov G., Protopopov A., Hwang W.-S., Tikhonov A. & Nedoluzhko A. (2022). Ancient DNA reveals maternal philopatry of the Northeast Eurasian brown bear (*Ursus arctos*) population during the Holocene. *Genes* 13(11): 1961.
137. Albano M., D'Iglio C., Spanò N., **Fernandes J.M.O.**, Savoca S. & Capillo G. (2022). Distribution of the order Lampriformes in the Mediterranean Sea with notes on their biology, morphology, and taxonomy. *Biology* 11: 1534.
136. Rehman S., Gora A.H., Varshney S., Dias J., Brugman S., Olsvik P.A., **Fernandes J.M.O.** & Kiron V. (2022). Developmental defects and behavioural changes in a diet-induced inflammation model of zebrafish. *Frontiers in Immunology* 13:1018768.
135. Jafari O., Ebrahimi M., Hedayati S.A., Zeinalabedini M., Poorbagher H., Pourmoghdam M.N. & **Fernandes J.M.O.** (2022). Integration of morphometrics and machine learning enables accurate distinction between wild and farmed common carp. *Life* 12: 957.
134. Abdelhafiz Y., **Fernandes J.M.O.**, Donati C., Pindo M. & Kiron V. (2022). Intergenerational transfer of persistent communities in female Nile tilapia. *Frontiers in Microbiology* 13:879990.
133. Geraerts M., Vangestel C., Artois T., **Fernandes J.M.O.**, Jorissen M., Chocha M.A., Mizani C.D., Smeets K., Snoeks J., Sonet G., Yang T., Van Steenberge M., Vreven E., Wamuini S.L., Vanhove M. & Huyse T. (2022). Population genomics of introduced Nile tilapia (*Oreochromis niloticus* (Linnaeus, 1758)) in the Democratic

- Republic of the Congo: repeated introductions since colonial times with multiple sources. *Molecular Ecology* 31 (12): 3304-3322
132. Jafari O., Zeinolabedini M., Robledo D., **Fernandes J.M.O.**, Hedayati S.A.-A. & Arefnezhad B. (2022). Genotyping-by-sequencing reveals the impact of a restocking programme on wild common carp (*Cyprinus carpio*) populations of the southern Caspian basin. *Frontiers in Ecology and Evolution* 10:872176.
131. Konstantinidis I., Firmino J., Ruiz A., Iñarra B., Martín D.S., Estévez A., **Fernandes J.M.O.**, Gisbert E. (2022). Brewer's spent dry yeast modulates immunity in gilthead sea bream (*Sparus aurata*). *Frontiers in Marine Science* 9:857592.
130. Zacccone G., Capillo G., **Fernandes J.M.O.**, Kiron V., Lauriano E.R., Alesci A., Cascio P.L., Guerrero M.C., Kuciel M., Zuwala K., Icardo J.M., Ishimatsu A., Murata R., Amagai T., Germanà A. & Aragona M. (2022). Expression of the antimicrobial peptide Piscidin 1 and neuropeptides in fish gill and skin: A potential participation in neuro-immune interaction. *Marine Drugs* 20: 145.
129. Saito T., Whatmore P., Taylor J.F., **Fernandes J.M.O.**, Adam A.-C., Tocher D.R., Espe M. & Skjærven K.H. (2022). Micronutrient supplementation affects DNA methylation in male gonads with potential intergenerational epigenetic inheritance involving the embryonic development through glutamate receptor-associated genes. *BMC Genomics* 23: 115.
128. Maina J.N., Icardo J.M., Zacccone G., Lauriano E.R., Aragona M.L., Guerrero C., Germana A., **Fernandes J.M.O.**, Kiron V. & Capillo G. (2022). Immunohistochemical and ultrastructural study of the immune cell system and epithelial surfaces of the respiratory organs in the bimodally breathing African sharp-toothed catfish (*Clarias gariepinus* Burchell, 1822). *Anatomical Record* 305 (11): 3212-3229.
127. Kiron V., Kathiresan P., **Fernandes J.M.O.**, Sørensen M., Vasanth G.K., Qingsong L., Kwang L.T., Dahle D., Dias J. & Trichet V.V. (2022). Clues from the intestinal mucus proteome of Atlantic salmon to counter inflammation. *Journal of Proteomics* 255: 104487.
126. Gora A.H., Rehman S., Kiron V., Dias J., **Fernandes J.M.O.**, Olsvik P.A., Siriappagounder P., Vatsos I., Schmid-Staiger U., Frick K. & Pestana P. (2022). Management of hypercholesterolemia through dietary β -glucans - insights from a zebrafish model. *Frontiers in Nutrition* 8: 797452.
125. Podgorniak T., Dhanasiri A., Chen X., Ren X., Kuan P. & **Fernandes J.M.O.** (2022). Early fish domestication affects methylation of key genes involved in the rapid onset of the farmed phenotype. *Epigenetics* 17 (10): 1281-1298.
124. Park Y., Zhang Q., **Fernandes J.M.O.**, Wiegertjes G.F. & Kiron V. (2021). Macrophage heterogeneity in the intestinal cells of salmon: Hints from transcriptomic and imaging data. *Frontiers in Immunology* 12: 798156.
123. Abdelhafiz Y.A., **Fernandes J.M.O.**, Stefani E., Albanese D., Donati C. & Kiron V. (2021). Power play of commensal bacteria in the buccal cavity of female Nile tilapia. *Frontiers in Microbiology* 12: 773351.
122. Lauriano E.R., Capillo G., Icardo J.M., **Fernandes J.M.O.**, Kiron V., Kuciel M., Zuwala K., Guerrero M.C., Aragona M.L., Germana A. & Zacccone G. (2021). Neuroepithelial cells (NECs) and mucous cells express a variety of neurotransmitters and neurotransmitter receptors in the gill and respiratory air-sac of the catfish *Heteropneustes fossilis* (Siluriformes, Heteropneustidae): a possible role in local immune defence. *Zoology* 148: 125958.
121. Abdelhafiz Y., **Fernandes J.M.O.**, Larger S., Albanese D., Donati C., Jafari O., Nedoluzhko A. & Kiron V. (2021). Breeding strategy shapes the composition of bacterial communities in female Nile tilapia reared in a recirculating aquaculture system. *Frontiers in Microbiology* 12: 709611.
120. Nedoluzhko A., Mjelle R., Renström M., Skjærven K.H., Piferrer F. & **Fernandes J.M.O.** (2021). The first mitochondrial 5-methylcytosine map in a non-model teleost (*Oreochromis niloticus*) reveals extensive strand-specific and non-CpG methylation. *Genomics* 113: 3050-3057.
119. Capillo G., Lauriano E.R., Icardo J.M., Siriappagounder P., Kuciel M., Karapanagiotis S., Zacccone G. & **Fernandes J.M.O.** (2021). Structural identification of the pacemaker cells and expression of hyperpolarization-activated cyclic nucleotide-gated (HCN) channels in the heart of the wild Atlantic cod, *Gadus morhua* (Linnaeus, 1758). *International Journal of Molecular Sciences* 22 (14): 7539.
118. Adam A.-C., Saito T., Espe M., Whatmore P., **Fernandes J.M.O.**, Vikeså V., Skjærven K.H. (2021). Metabolic and molecular signatures of improved growth in Atlantic salmon (*Salmo salar*) fed surplus levels of methionine, folic acid, vitamin B6 and B12 throughout smoltification. *British Journal of Nutrition* 127(9): 1289-1302.
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279. **Fernandes J.M.O.** Domestication-associated epigenetic changes and environmental modulation of miRNAs in teleosts. Aquaculture Seminars, Huazhong Agricultural University, Wuhan, China, 12-15 March 2024. (**Invited speaker**)
278. **Fernandes J.M.O.** Nutritional and thermal modulation of miRNA expression in Senegalese sole. Workshop on Reproductive Biotechnology in Flatfish Species: Trends in Breeders' Management, Faro, Portugal, 7-9 February 2024. (**Invited speaker**)
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269. **Fernandes J.M.O.** Epigenetics of muscle growth in fish and identification of epimarkers with potential application in aquaculture. EpiChrom 2022, Uppsala, Sweden, 8-9 September 2022. (*Invited speaker*)
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260. Galindo-Villegas J., Konstantinidis I. & **Fernandes J.M.O.** Targeting myogenesis modulation via Crispr/Cas9-mediation in farmed Nile tilapia. 6th Genomics in Aquaculture, Granada, Spain, 4-6 May 2022. (Poster)
259. Tripathy P.S., Nedoluzhko A., Skjærven K., Piferrer F. & **Fernandes J.M.O.** Mitochondrial DNA methylation profiling in Nile tilapia (*Oreochromis niloticus*) through Nanopore sequencing. 6th Genomics in Aquaculture, Granada, Spain, 4-6 May 2022.
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254. Diab F., Nedoluzhko A., Rbbani G. & **Fernandes J.M.O.** Transgenerational inheritance of circular RNAs in fish. 6th Genomics in Aquaculture, Granada, Spain, 4-6 May 2022. (Poster)
253. **Fernandes J.M.O.** Epigenetic regulation of muscle growth in fish. Research Seminars. AZTI, Spain, 20 December 2021. (*Invited speaker*)

252. Shankregowda A.M., Sagonas K., Bal T.P., Shama L., **Fernandes J.M.O.** & and Raeymaekers J.A.M. Contribution of epigenetic variation to local adaptation in two coexisting and phylogenetically related species. NORBIS annual conference, Stavanger, Norway, 27-28 October 2021.
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246. **Fernandes J.M.O.** Unveiling the massive epigenome changes that occur during Nile tilapia domestication. Blue Think Conference 2021, Online, 23-24 September 2021. (*Invited speaker*)
245. **Fernandes J.M.O.** Trends and limitations of epigenetic biomarkers. Novel aquafeeds GAIN workshop, online, 21-22 September 2021. (*Invited speaker*)
244. Gora A., Rehman S., **Fernandes J.M.O.**, Dias J., Olsvik P. & Kiron V. Combating hypercholesterolemia using oat-glucan – evidences from the zebrafish model. 16th International Zebrafish Conference, Online, 16-22 June 2021. (Poster)
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242. Gora A., Rehman S., **Fernandes J.M.O.**, Dias J., Olsvik P. & Kiron V. Dietary glucans can restore normal lipid metabolism in zebrafish. 6th Genomics in Aquaculture Symposium, Online, 5-7 May 2021.
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237. Nedoluzhko A., Mjelle R., Renström M., Skjærven K., Piferrer F. & **Fernandes J.M.O.** The mitochondrial 5-methylcytosine profile in Nile tilapia (*Oreochromis niloticus*). 6th Genomics in Aquaculture Symposium, Online, 5-7 May 2021.
236. Nedoluzhko A.V., Sharko F.S., Rbbani Md.G., Teslyuk A.B., Konstantinidis I. & **Fernandes J.M.O.** Circular RNA host gene prediction in Nile tilapia using the novel circParser pipeline. 6th Genomics in Aquaculture Symposium, Online, 5-7 May 2021.
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234. Rbbani G.M., Nedoluzhko A.V., Siriyappagounder P., Raeymaekers J.A.M., Galindo-Villegas J. & **Fernandes J.M.O.** circRNA, miRNA and mRNA muscle transcriptomes indicate their role in growth regulation in Nile tilapia. Aquaculture Europe 2020, Online, 12-15 April 2021.
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232. Rbbani G.M., Nedoluzhko A.V., Siriyappagounder P., Raeymaekers J.A.M., Galindo-Villegas J. & **Fernandes J.M.O.** Exploration of circRNA, miRNA and mRNA expression to identify their role in growth regulation in Nile tilapia. X FIRMA 2021, Digital, 7-12 February 2021. (Poster)
231. Fernandes A.M., Conceição L.E.C., Pereira G.V., Micallef G., Siriyappagounder P. & **Fernandes J.M.O.** Effects of novel feed formulations in growth performance, oxidative and immune response in Atlantic salmon. X FIRMA 2021, Digital, 7-12 February 2021. (Poster)
230. Konstantinidis I., Sætrum P., Briec M.S.O., Jakobsen K.S., Liedtke H., Pohlmann C., Tsoulia T. & **Fernandes J.M.O.** DNA hydroxymethylation is linked to higher growth rate in Nile tilapia. X FIRMA 2021, Digital, 7-12 February 2021.
229. Nedoluzhko A.V., Rbbani G.M., Sharko F.S., Siriyappagounder P., Galindo-Villegas J. & **Fernandes J.M.O.** Circular RNA workflow analysis and its application in aquaculture. X FIRMA 2021, Digital, 7-12 February 2021. (Poster)
228. Adam A.C., Espe M., Saito T., Whatmore P., **Fernandes J.M.O.** & Skjærven K.H. EpiFishGrowth: Nutrient-responsive epigenetic programming in Atlantic salmon and zebrafish muscle growth. Havbruk 2020, Digital, 9-10 June 2020.
227. Skjærven K.H., Saito T., **Fernandes J.M.O.**, Mommens M., Adam A.C. & Espe M. Seasonal brood handling affects nutritional status, epigenetic gene regulation and gene expression in the offspring. Havbruk 2020, Digital, 9-10 June 2020.
226. **Fernandes J.M.O.** Epigenetics in aquaculture. Current Advances in Epigenetics and Vaccine Development in Aquaculture, Guru Angad Dev Veterinary and Animal Sciences University, Punjab, India, 9 August 2020. (*Invited speaker*)
225. Nedoluzhko A., Konstantinidis I., Berrutti P., Babiak I., Guimarães I. & **Fernandes J.M.O.** Hydroxymethylation changes during early embryonic development in zebrafish. 11th International Multiconference Bioinformatics of Genome Regulation and Structure/Systems Biology, Online, 6-10 July 2020.
224. Nedoluzhko A., Sharko F., Rbbani G., Teslyuk A., Konstantinidis I. & **Fernandes J.M.O.** Circular RNA host gene and orthologue prediction using the self-designed CircParser pipeline. 11th International Multiconference Bioinformatics of Genome Regulation and Structure/Systems Biology, Online, 6-10 July 2020. (Poster)
223. **Fernandes J.M.O.** & Renström M. Mitochondrial DNA methylation in Nile tilapia *Oreochromis niloticus*. Aquaculture America 2020, Honolulu, USA, 9-12 February 2020.
222. Siriyappagounder P., Kiron V. & **Fernandes J.M.O.** The intestinal mycobiota of zebrafish - community profiling and exploration of the impact of yeast exposure early in life. Third International Symposium on Genomics In Aquaculture, Bhubaneswar, India, 21-23 January 2020.
221. Siriyappagounder P., Konstantinidis I., Podgorniak T. & **Fernandes J.M.O.** EPIMARK – Novel epigenetic markers of growth in fish. Third International Symposium on Genomics In Aquaculture, Bhubaneswar, India, 21-23 January 2020. (*Best poster award*)
220. **Fernandes J.M.O.** Developmental plasticity of growth in teleosts. Biology seminars, University of Buenos Aires, Argentina, 13 December 2019. (*Invited speaker*)
219. **Fernandes J.M.O.** Epigenetic regulation of growth during early ontogeny. LARVAplus workshop, Rosario, Argentina, 16-20 December 2019. (*Invited speaker*)
218. **Fernandes J.M.O.**, Konstantinidis I., Nedoluzhko A. & Mjelle R. Muscle transcriptome changes within one generation of Nile tilapia domestication. Latin American and Caribbean Aquaculture 2019, San Jose, Costa Rica, 22-24 November 2019.
217. Fatsini E., Oliveira C., Fernandez I., Marques C., Mjelle R., **Fernandes J.M.O.** & Cabrita E. Circulating microRNA expression is related to hormonal kisspeptin treatment in Senegalese sole (*Solea senegalensis*) breeders. Latin American and Caribbean Aquaculture 2019, San Jose, Costa Rica, 22-24 November 2019. (Poster)

216. Odei D.K., Peruzzi S., Hagen Ø. & **Fernandes J.M.O.** Liver transcriptome of juvenile diploid and triploid Atlantic salmon (*Salmo salar* L.). Aquaculture Europe 2019, Berlin, Germany, 7-10 October 2019. (Poster)
215. Adam A.C., Espe M., Saito T., Whatmore P., **Fernandes J.M.O.** & Skjaerven K.H. Epigenetic effects of dietary micronutrients in Atlantic salmon (*Salmo salar*) muscle. Aquaculture Europe 2019, Berlin, Germany, 7-10 October 2019. (Poster)
214. Park Y., Siriappagounder P., Dahle D., Vasanth G.K., Sørensen M., Trichet V.V., **Fernandes J.M.O.** & Kiron V. Cellular and molecular fingerprinting of feed-induced intestinal inflammation in Atlantic salmon. 19th International Conference on Diseases of Fish and Shellfish, Porto, Portugal, 9-12 September 2019.
213. López-Cánovas A.E., García-Ayala A., López-Gómez A., **Fernandes J.M.O.** & Galindo-Villegas J. Effect of nanoencapsulated clove-oil anaesthesia in the physiological response and immune status of Nile tilapia. 3rd International Conference on Fish & Shellfish Immunology, Las Palmas de Gran Canaria, Spain, 16-20 June 2019.
212. Zhang Q., Babiak I. **Fernandes J.M.O.** Embryonic incubation temperature has a long-term effect on the spleen immune transcriptome and its response to lipopolysaccharide in adult zebrafish (*Danio rerio*). 3rd International Conference on Fish & Shellfish Immunology, Las Palmas de Gran Canaria, Spain, 16-20 June 2019.
211. Zhang Q., Babiak I. **Fernandes J.M.O.** Thermal experience during embryogenesis impacts the microRNA transcriptome in the spleen of adult zebrafish (*Danio rerio*). 3rd International Conference on Fish & Shellfish Immunology, Las Palmas de Gran Canaria, Spain, 16-20 June 2019. (Poster)
210. Dhanasiri A.K.S., Kiron V. & **Fernandes J.M.O.** Molecular response to transport stress in zebrafish and improved acclimation by nitrifying bacteria. Zebrafish symposium, Aquaculture 2019, New Orleans, USA, 7-11 March 2019. (*Invited speaker*)
209. Konstantinidis I., Sætrum P. & **Fernandes J.M.O.** Tissue-specific hydroxymethylome profiles of Nile tilapia *Oreochromis niloticus* at single nucleotide resolution. Aquaculture 2019, New Orleans, USA, 7-11 March 2019.
208. **Fernandes J.M.O.**, Konstantinidis I., Pohlmann C., Tsoulia T. & Liedtke H. Differences in liver hydroxymethylomes of Nile tilapia with distinct growth rates. Aquaculture 2019, New Orleans, USA, 7-11 March 2019.
207. Dhanasiri A.K.S., Chen X., Berge G.M., Bøgevik A.S., Fæste C.K. & **Fernandes J.M.O.** Nutriepigenomic effects of wheat gluten-based diet on liver of Atlantic salmon. Aquaculture 2019, New Orleans, USA, 7-11 March 2019.
206. **Fernandes J.M.O.**, Wardale A., Podgorniak T. & Babiak I. Growth-associated circulating miRNAs in Nile tilapia *Oreochromis niloticus*. Latin American and Caribbean Aquaculture 2018, Bogota, Colombia, 23-26 October 2018.
205. **Fernandes J.M.O.**, Konstantinidis I. & Podgorniak T. Growth-associated DNA methylation and hydroxymethylation marks in Nile tilapia muscle. XIII International Symposium of Genetics in Aquaculture, Cairns, Australia, 15-20 July 2018.
204. Batista S., Sitjà-Bobadilla A., Fouz B., Pires M. A., Kiron V., Gomes A.M.P., **Fernandes J.M.O.**, Valente L.M.P. & Ozório R.O.A. Autochthonous intestine bacteria used as microbial feed additives in Senegalese sole challenged with a disease infectious agent (*Photobacterium damsela* sp. *piscicida*). 18th International Symposium on Fish Nutrition and Feeding, Las Palmas de Gran Canaria, Spain, 3-7 June 2018.
203. Dhanasiri A.K.S., Johny A., Fæste C.K., Bøgevik A.S. & **Fernandes J.M.O.** Nutrigenomic effects of plant-based aquafeeds on fish muscle and spleen. Havbruk 2018 (Research Council of Norway), Oslo, Norway, 18-20 April 2018.
202. Lokesh J., **Fernandes J.M.O.** & Kiron V. Microbiota of Atlantic salmon (*Salmo salar* L.), during their early and adult life. 5th Genomics in Aquaculture Symposium 2018, Albufeira, Portugal, 21-23 March 2018. (Poster)
201. Skjaerven K.H., Whatmore P., **Fernandes J.M.O.** & Espe M. Epigenetic and transcriptional effects of optimizing 1-c nutrients in plant based feeds for Atlantic salmon. 5th Genomics in Aquaculture Symposium 2018, Albufeira, Portugal, 21-23 March 2018.
200. Konstantinidis I., Sætrum P. & **Fernandes J.M.O.** Fast muscle hydroxymethylation patterns in wild and captive Nile tilapia (*Oreochromis niloticus*) provide insights into fish domestication. 5th Genomics in Aquaculture Symposium 2018, Albufeira, Portugal, 21-23 March 2018.
199. Wardale A., Podgorniak T., Renström M., Babiak I. & **Fernandes J.M.O.** Circulating microRNAs as potential biomarkers of growth in Nile tilapia (*Oreochromis niloticus*). 5th Genomics in Aquaculture Symposium 2018, Albufeira, Portugal, 21-23 March 2018.

198. Dhanasiri A.K.S., Chen X., Dahle D., Siriappagounder P., Fæste C. K. & **Fernandes J. M.O.** Nutriepigenomic effects of plant protein-based aquafeeds on zebrafish intestine. 5th Genomics in Aquaculture Symposium 2018, Albufeira, Portugal, 21-23 March 2018.
197. Ekvall H., Konstantinidis I., Podgorniak T. & **Fernandes J.M.O.** DNA hydroxy- and methylation profiles of the Nile tilapia pituitary link hypermethylation and hyperhydroxymethylation to faster growth. 5th Genomics in Aquaculture Symposium 2018, Albufeira, Portugal, 21-23 March 2018.
196. Dhanasiri A.K.S., Johny A., Fæste C. K., Bøgevik A. S., Zhang Q. & **Fernandes, J. M.O.** Nutrigenomic study of plant protein-based aquafeeds on fish muscle and spleen. 5th Genomics in Aquaculture Symposium 2018, Albufeira, Portugal, 21-23 March 2018. (Poster)
195. Podgorniak T. & **Fernandes J.M.O.** Growth-related epigenetic crossroads in fast muscle of Nile tilapia sharing a similar genetic background. 5th Genomics in Aquaculture Symposium 2018, Albufeira, Portugal, 21-23 March 2018.
194. Gupta S., Lokesh J., Pierre R., Sørensen M., Valente L., **Fernandes J.M.O.** & Kiron V. Macroalga-derived oligosaccharide can modify the mucus-associated bacteria of Atlantic salmon. 5th Genomics in Aquaculture Symposium 2018, Albufeira, Portugal, 21-23 March 2018.
193. Gupta S., Fečkaninová A., Lokesh J., Sørensen M., **Fernandes J.M.O.** & Kiron V. *Lactobacillus* dominate in the intestine of Atlantic salmon fed dietary probiotics. 5th Genomics in Aquaculture Symposium 2018, Albufeira, Portugal, 21-23 March 2018. (Poster)
192. Silva T.S., Ramos-Pinto L., Martos-Sitcha J.A., Caldach-Giner J., Pérez-Sánchez J., **Fernandes J.M.O.**, Costas B. & Conceição L.E.C. Prediction of fish growth potential from gene expression measurements: insights from gilthead seabream. 5th Genomics in Aquaculture Symposium 2018, Albufeira, Portugal, 21-23 March 2018.
191. Engrola S., Lopes A., Colen R., Gonçalves R., Teodósio R., **Fernandes J.M.O.**, Terova G., Saroglia M. & Conceição L.E.C. Gilthead seabream eggs high methionine exposure: targeting fish performance. Aquaculture Europe 2017, Dubrovnik, Croatia, 17-20 October 2017.
190. Konstantinidis I., **Fernandes J.M.O.** & Sætrum P. The first hydroxymethylation map of fast muscle in Nile tilapia (*Oreochromis niloticus*). Aquaculture Europe 2017, Dubrovnik, Croatia, 17-20 October 2017.
189. Godoy-Olmos S., Martínez-Llorens S., Falk-Petersen I-B., Ulleberg L-O., Estruch-Cucarella G., Tomás-Vidal A., Peruzzi S., Puvanendran V., Hagen Ø., Odei D., Riesen G., Seim R., **Fernandes J.M.O.** & Jobling M. Effects of triploidization on digestive enzyme activities and histology of Atlantic salmon (*Salmo salar* L.) fed two different diets. Aquaculture Europe 2017, Dubrovnik, Croatia, 17-20 October 2017.
188. Fernández I., Roberto V.P., Koop M., Cox C., Oliveira C., Fernandez-Riesco M., **Fernandes J.M.O.**, Cabrita E. & Gavaia P.J. Identification of circulating micro-RNAs in F1 senegalese sole with differential reproductive performance. Aquaculture Europe 2017, Dubrovnik, Croatia, 17-20 October 2017.
187. Siriappagounder P., Jep L., Kiron V. & **Fernandes J.M.O.** Molecular profiling of intestinal mycobiota in wild-caught and laboratory-reared zebrafish. Aquaculture Europe 2017, Dubrovnik, Croatia, 17-20 October 2017.
186. Odei D.K., **Fernandes J.M.O.**, Hagen Ø., Peruzzi S., Puvanendran V., Riesen G., Seim R.R., Martínez-Llorens S., Falk-Petersen I.-B. & Jobling M. dietary effects on gut transcriptome of diploid and triploid Atlantic salmon (*Salmo salar*). Aquaculture Europe 2017, Dubrovnik, Croatia, 17-20 October 2017.
185. Silva T.S., Santos A., Lock E., Hemre G.-I., Hamre K., Johansen J., Pérez-Sánchez J., Caldach-Giner J., **Fernandes J.M.O.**, Tocher D.R., Betancor M., Dias J. & Conceição L.E.C. Direct prediction of Atlantic salmon growth performance from gene expression measurements. Aquaculture Europe 2017, Dubrovnik, Croatia, 17-20 October 2017.
184. Dhanasiri A.K.S, Johny A., Fæste C.K., Bøgevik A.S. & **Fernandes J.M.O.** Nutrigenomic effects of plant protein-based aquafeeds on fish. Aquaculture Europe 2017, Dubrovnik, Croatia, 17-20 October 2017.
183. Zhang Q., Kopp M.E.L., Babiak I.S. & **Fernandes J.M.O.** Transcriptomic analysis reveals that low temperature during embryonic development negatively affects survival and innate immune processes in zebrafish larvae. Aquaculture Europe 2017, Dubrovnik, Croatia, 17-20 October 2017.
182. Podgorniak T.K., Brockmann S. & **Fernandes J.M.O.** Growth and the DNA methylation landscape in pituitary and fast muscle of Nile tilapia (*Oreochromis niloticus*). Aquaculture Europe 2017, Dubrovnik, Croatia, 17-20 October 2017.
181. Peruzzi S., Puvanendran V., Hagen Ø., Odei D.K., Riesen G., Seim R.R., Martínez-Llorens S., Falk-Petersen I.-B., **Fernandes J.M.O.** & Jobling M. Growth of diploid and triploid Atlantic salmon (*Salmo salar*) fed a standard

diet and an experimental diet containing high proportions of hydrolysed proteins. Aquaculture Europe 2017, Dubrovnik, Croatia, 17-20 October 2017.

180. **Fernandes J.M.O.**, Podgorniak T.K. & Brockmann S. A reduced representation of the DNA methylome in fast muscle of Nile tilapia *Oreochromis niloticus*. World Aquaculture Society 2017, Cape Town, South Africa, 26-30 June 2017. (Poster)

179. Puvanendran V., Peruzzi S., Falk-Petersen I.-B., Ulleberg L.O., Tønning F., Hagen Ø., **Fernandes J.**, Llorens S.M., Riesen G. & Seim R.R. Growth and functional ontogeny and physiology of the digestive system in juvenile diploid and triploid salmon (*Salmo salar*). World Aquaculture Society 2017, Cape Town, South Africa, 26-30 June 2017. (Poster)

178. **Fernandes J.M.O.** The emerging field of epigenetics in aquaculture. Workshop Functional Genomics in Aquaculture, Concepcion, Chile, 6-8 March 2017. (*Invited speaker*)

177. **Fernandes J.M.O.**, Podgorniak T., El-Zaeem S. Expression changes of miRNAs involved in epigenetic regulation are associated with domestication in Nile tilapia (*Oreochromis niloticus*). Epigenetics and Periconception Environment Conference, Giardini Naxos, Italy, 26-29 September 2016. (Poster)

176. Skjærven K.H., Jakt L.M., Dahl J.A., Hamre K. & **Fernandes J.M.O.** Effects of a dietary deficiency in one carbon (1C) micronutrients in both parental and descendant generations: evidence for an inflammatory response to perturbations in redox regulation and lipid accumulation. 4th Genomics in Aquaculture Symposium 2016, Athens, Greece, 20-22 April 2016.

175. Zhang Q.R., Bogdanova M., Pereiro P., Novoa B., Babiak I. & **Fernandes J.M.O.** Effect of embryonic temperature on the innate immune response of zebrafish (*Danio rerio*). 4th Genomics in Aquaculture Symposium 2016, Athens, Greece, 20-22 April 2016. (Poster)

174. Fernandez I., Granadeiro L., Koop M., **Fernandes J.M.O.**, Dirks R., Gavaia P., Laizé V. & Cancela, M.L. Vitamin K deficiency in fish early development: characterization and underlying pathways by RNAseq analysis in zebrafish (*Danio rerio*). 4th Genomics in Aquaculture Symposium 2016, Athens, Greece, 20-22 April 2016.

173. Siriappagounder P., Kiron V. & **Fernandes, J.M.O.** Characterization of the yeast community in zebrafish intestine. 4th Genomics in Aquaculture Symposium 2016, Athens, Greece, 20-22 April 2016. (Poster)

172. Presslauer C., Bizuayehu T.T., **Fernandes J.M.O.** & Babiak I. Using zebrafish as a model to understand the role of microRNAs during gonadal development. 4th Genomics in Aquaculture Symposium 2016, Athens, Greece, 20-22 April 2016.

171. Lokesh J., Moum T., **Fernandes J.M.O.** & Kiron V. Microbial communities associated with salmon skin are different in fresh- and saltwater. Havbruk 2016 (Research Council of Norway), Bodø, Norway, 18 - 20 April 2016. (Poster)

170. **Fernandes J.M.O.** Can warmer fish grow more? CCMAR seminar series, Faro, Portugal, 10 February 2016.

169. Kitani Y., **Fernandes J.M.O.** & Kiron V. Alterations in the expression of antimicrobial peptide genes on the mucosal surfaces of Atlantic salmon. 17th International Conference on Diseases of Fish and Shellfish, Las Palmas, Spain, 7-11 September 2015.

168. Siriappagounder P., Kiron V. & **Fernandes J.M.O.** Isolation and characterization of commensal yeast from zebrafish intestine. 9th European Zebrafish Meeting, Oslo, Norway, 28 June - 2 July 2015. (Poster)

167. Shcherbakova I., Kopp M., Sætrom P., Babiak I., Kollias S., Presslauer C. & **Fernandes J.M.O.** Changes in muscle DNA methylation patterns associated with rearing temperature in zebrafish. 9th European Zebrafish Meeting, Oslo, Norway, 28 June - 2 July 2015. (Poster)

166. Presslauer C., Bizuayehu T.T., **Fernandes J.M.O.** & Babiak I. miRNA expression profiling and their role in zebrafish sexual development. 9th European Zebrafish Meeting, Oslo, Norway, 28 June - 2 July 2015. (Poster)

165. Zhang Q., Bogdanova M., Pereiro P., Novoa B., Babiak I. & **Fernandes J.M.O.** Effect of embryonic temperature on the innate immune response of zebrafish (*Danio rerio*). 9th European Zebrafish Meeting, Oslo, Norway, 28 June - 2 July 2015. (Poster)

164. Skjærven K.H., Aanes H., Bock C., Hadler J., **Fernandes J.M.O.**, Lie K.K., Dahl J.A. & Hamre K. Insufficient methionine and b-vitamin levels in zebrafish feed increase the liver lipid accumulation and affects redox regulation and one carbon metabolism in the next generation. 48th Annual Meeting of the Society for the Study of Reproduction, San Juan, USA, 18-22 June 2015. (Poster)

163. **Fernandes J.M.O.** Epigenetic effects of temperature on teleost ontogeny. 3rd Aquagamete Training School, Faro, Portugal, 13-16 January 2015. (*Invited speaker*)

162. Batista S., Kollias S., Sundaram A.Y.M., **Fernandes J.M.O.**, Valente L.M.P. & Ozório R.O.A. Innate immune parameters and related transcript levels in sole (*Solea senegalensis*) fed plant protein diets intercropped with the use of probiotics. Aquaculture Europe 2014, San Sebastián, Spain, 14-17 October 2014.
161. Canada P., Engrola S., Conceição L.E.C., Teodósio R., Mira S., Sousa V., **Fernandes J.M.O.** & Valente L.M.P. A high inclusion of fish protein hydrolysate on Senegalese sole larval diet affects growth and is associated with altered expression of DNA methyltransferases. Epiconcept Annual Conference, Vilamoura, Portugal, 1-3 October 2014.
160. Batista S., Faria P., Costas B., **Fernandes J.M.O.**, Valente L.M.P. & Ozório R.O.A. Use of probiotics intercropped with plant protein diets and their influence on the growth performance and immunological status of Senegalese sole (*Solea senegalensis*). International Meeting on Marine Research, Peniche, Portugal, 10-11 July 2014.
159. Lokesh J., Kollias S., Fernandes **J.M.O.**, Moum T. & Kiron V. Intestinal microbiota of Atlantic salmon (*Salmo salar* L.) revealed by 16S rRNA gene amplicon sequencing. EMBO Conference on Microbiology after the genomics revolution: Genomes 2014, Paris, France, 24-27 June 2014. (Poster)
158. Presslauer C., Bizuayehu T.T., **Fernandes J.M.O.** & Babiak I. Functional analysis of miR-202 and its role in zebrafish sexual development. The 19th Annual Meeting of the RNA Society, Quebec City, Canada, 3-8 June 2014. (Poster)
157. Canada P., Engrola S., Conceição L.E., Teodósio R., Richard N., Mira S., Pinto W., Lopes F.A., Barriga-Negra L., Sousa V., **Fernandes J.M.O.** & Valente L.M.P. Using muscle cellularity, tracer studies and gene expression to understand the effect of dietary protein composition on protein digestive capacity and muscle growth. 16th International Symposium on Fish Nutrition and Feeding (ISFNF XVI), Cairns, Australia, 25-30 May 2014. (Poster)
156. Valente L.M.P., Barriga-Negra L., Cabral E.M., Cunha L.M. & **Fernandes J.M.O.** Flesh quality of Senegalese sole fed diets with increasing levels of plant protein blends as replacement of fishmeal. 16th International Symposium on Fish Nutrition and Feeding (ISFNF XVI), Cairns, Australia, 25-30 May 2014.
155. Tinsley J., Micallef G., Cash P., **Fernandes J.M.O.**, Rajan B., Bickerdike R., Martin S. & Bowman A. Dietary yeast cell wall extract supplements alter the proteome of Atlantic salmon (*Salmo salar*) skin mucus. 16th International Symposium on Fish Nutrition and Feeding (ISFNF XVI), Cairns, Australia, 25-30 May 2014.
154. Norberg B., Edvardsen R., Babiak J., Haugen T., Harboe T., Andersson E., **Fernandes, J.M.O.**, Babiak I. & Erstad B. Tools for the development of a selective breeding strategy for Atlantic halibut (*Hippoglossus hippoglossus* L.): genetic sex markers and large scale all female production. 10th International Symposium on Reproductive Physiology of Fish, Olhão, Portugal, 25-30 May 2014.
153. **Fernandes J.M.O.**, Nagasawa K. & Lazado C.C. Impact of photoperiod and sexual maturation on growth performance of Atlantic cod - a genomic perspective. Havbruk 2014 (Research Council of Norway), Tromsø, Norway, 31 March - 2 April 2014. (Poster)
152. Nagasawa K., Sarropoulou E., Lazado C.C. & **Fernandes J.M.O.** Next-generation sequencing technologies reveal changes of microRNA and myofibrillar gene expression in fast skeletal muscle during a sexual maturation cycle in Atlantic cod. The 2014 Spring meeting of the Japanese Society of Fisheries Science, Hakodate, Japan, 27-31 March, 2014.
151. **Fernandes J.M.O.**, Nagasawa K. & Lazado C.C. Photoperiod treatment and sexual maturation are associated with dynamic changes in the fast muscle microRNA transcriptome in Atlantic cod. Aquaculture America 2014, Seattle, USA, 9-12 February 2014.
150. Lazado C.C., Nagasawa K., Sundaram A.Y.M., Giannetto A., Babiak I. & **Fernandes J.M.O.** Changes in the gonadal miRNAome of Atlantic cod during sexual maturation. Aquaculture 2013, Gran Canaria, Spain, 3-7 November 2013. (Poster)
149. Lazado C.C., Nagasawa K., Babiak I. & **Fernandes J.M.O.** Dynamics of the cod muscle transcriptome during a circadian cycle revealed by ion semiconductor-based sequencing. Aquaculture 2013, Gran Canaria, Spain, 3-7 November 2013. (Poster)
148. **Fernandes J.M.O.** The lack of MHC II in Atlantic cod and the remarkable expansion of Toll-like receptors and MHC I molecules. A symposium on cod immunity in the honour of Dr. Bergljót Magnadóttir, Reykjavík, Iceland, 31 October 2013. (*Invited speaker*)
147. **Fernandes J.M.O.** External environment and muscle development in fish. Workshop of the COST Action epigenetics for improved food production: from model to practice, Sant Feliu de Guíxols, Spain, 13-16 October 2013. (*Invited speaker*)

146. Valente L.M.P., Campos C., Canada P., Engrola S., Conceição L.E.C. & **Fernandes J.M.O.** Programming of muscle growth in fish: Epigenetic regulation of development and growth in Senegalese sole (*Solea senegalensis*). Workshop of the COST Action epigenetics for improved food production: from model to practice, Sant Feliu de Guíxols, Spain, 13-16 October 2013. **(Invited speaker)**
145. **Fernandes J.M.O.** Environmental plasticity of miRNA expression in Atlantic cod and Senegalese sole. NcRNA Workshop, Bodø-Tromsø, Norway, 1-2 October 2013. **(Invited speaker)**
144. Vasanth K.G., Dalia D., Lokesh J., **Fernandes J.M.O.**, Ribe H. & Kiron V. Intestinal inflammation and its amelioration in atlantic salmon marked by molecular and micromorphological changes. Genomics in Aquaculture 2013, Bodø, Norway, 4-6 September 2013. (Poster)
143. Nagasawa K., Presslauer C., Kirtiklis L., Babiak I. & **Fernandes J.M.O.** Sex-dependent and seasonal expression of estrogen receptor genes in Atlantic cod gonads throughout a reproductive cycle. Genomics in Aquaculture 2013, Bodø, Norway, 4-6 September 2013. (Poster)
142. Nagasawa K., Sarropoulou E. & **Fernandes J.M.O.** RNA-seq reveals seasonal changes of the transcriptome profile in Atlantic cod muscle throughout a reproductive cycle. Genomics in Aquaculture 2013, Bodø, Norway, 4-6 September 2013. (Poster)
141. Nagasawa K., Lazado C. C. & **Fernandes J.M.O.** Profiling of fast muscle microRNAs associated with sexual maturation and photoperiod treatment in Atlantic cod. Genomics in Aquaculture 2013, Bodø, Norway, 4-6 September 2013.
140. Campos C., Valente L.M.P., Conceição L.E.C., Engrola S. & **Fernandes J.M.O.** Epigenetic regulation of muscle growth by temperature in Senegalese sole (*Solea senegalensis*). Genomics in Aquaculture 2013, Bodø, Norway, 4-6 September 2013.
139. Lazado C.C., Nagasawa K., Babiak I. & **Fernandes J.M.O.** Photic plasticity of the diverse skeletal muscle myosin family of Atlantic cod, *Gadus morhua*. Genomics in Aquaculture 2013, Bodø, Norway, 4-6 September 2013. (Poster)
138. Lazado C.C., Nagasawa K., Kumaratunga H.P.S., Kollias S., Babiak I. & **Fernandes J.M.O.** Exploring the transcriptional landscape of the circadian rhythm in the fast muscle of Atlantic cod using next-generation sequencing technologies. Genomics in Aquaculture 2013, Bodø, Norway, 4-6 September 2013.
137. Lazado C.C., Nagasawa K., Babiak I. & **Fernandes J.M.O.** The gonadal miRNA transcriptome of Atlantic cod: does sexual maturation alter the miRNA repertoire? Genomics in Aquaculture 2013, Bodø, Norway, 4-6 September 2013. (Poster)
136. Presslauer C., Nagasawa K., **Fernandes J.M.O.** & Babiak I. Characterization of molecular markers for primordial germ cells in Atlantic cod (*Gadus morhua*) and Atlantic salmon (*Salmo salar*). Genomics in Aquaculture 2013, Bodø, Norway, 4-6 September 2013. (Poster)
135. Bizuayehu T.T., **Fernandes J.M.O.**, Johansen S.D. & Babiak I. Approaches in characterization of microRNAs and their targets in Atlantic halibut, a non-model species. Genomics in Aquaculture 2013, Bodø, Norway, 4-6 September 2013.
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132. Campos C., Valente L.M.P., Conceição L.E.C., Engrola S. & **Fernandes J.M.O.** Epigenetic regulation of muscle development and growth in Senegalese sole larvae. LARVI 2013: 6th Fish & Shellfish Larviculture Symposium, Ghent, Belgium, 2-5 September 2013.
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127. Lazado C.C., Nagasawa K., Kollias S., Babiak I. & **Fernandes J.M.O.** Photic sensitivity and circadian rhythmicity of the fast muscle transcriptome in Atlantic cod, *Gadus morhua*. Myogenesis Gordon Research Seminar, Lucca, Italy, 6-7 July 2013.

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118. **Fernandes J.M.O.** Marine genomics at the UIN. NORA workshop. St John's, Canada, 26-28 September 2012. (**Invited speaker**)

117. Micallef G., Martin S.A.M., **Fernandes J.M.O.**, Tinsley J. & Bowman A.S. Bioinformatic characterization of gel-forming mucin genes expressed in the skin of Atlantic salmon, *Salmo salar*. Aqua 2012, Prague, Czech Republic, 1-5 September 2012. (Poster)

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115. Sundaram A., Kiron V. & **Fernandes J.M.O.**, Evidence of selection pressure within multiple toll-like receptor 22 paralogues in Atlantic cod. Society for Experimental Biology Annual Main Meeting, Salzburg, Austria, 29 June - 2 July 2012. (Poster)

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107. Nagasawa K., Sarropoulou E., Lazado C.C. & **Fernandes J.M.O.** 454 pyrosequencing reveals changes in the fast muscle transcriptome during a sexual maturation cycle in Atlantic cod. Havbruk 2012, Stavanger, Norway, 16-18 April 2012. (Poster)
106. **Fernandes J.M.O.**, Ruangsri J., Brinchmann M.F., Caipang C.M.A., Noga E. & Kiron V. Natural peptide antibiotics from Atlantic cod. Havbruk 2012, Stavanger, Norway, 16-18 April 2012. (Poster)
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103. **Fernandes J.M.O.** Influence of environmental factors on muscle growth in commercial teleost species. International Symposium on Muscle Biochemistry, Tokyo, Japan, 27-29 October 2011. (*Invited speaker*)
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100. Ruangsri J., Jeppinamogeru L., Kiron V. & **Fernandes J.M.O.** Antimicrobial peptides/proteins in immune immune-related tissues of Atlantic cod (*Gadus morhua* L.): expression and function from a health perspective. Genomics in Aquaculture 2011, Crete, Greece, 14-17 September 2011. (Poster)
99. Nagasawa K., Lazado C.C. & **Fernandes J.M.O.** Relative expression of myogenic regulatory factors in fast muscle of Atlantic cod and the influence of photoperiod manipulation in their expression plasticity. Genomics in Aquaculture 2011, Crete, Greece, 14-17 September 2011. (Poster)
98. Nagasawa K., Lazado C.C. & **Fernandes J.M.O.** MicroRNA expression changes in fast muscle of Atlantic cod during a maturation cycle. Genomics in Aquaculture 2011, Crete, Greece, 14-17 September 2011.
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92. Lazado C.C., Nagasawa K. & **Fernandes J.M.O.** Transcriptional oscillation of peripheral circadian clocks during a maturation cycle in Atlantic cod. Genomics in Aquaculture 2011, Crete, Greece, 14-17 September 2011. (Poster)

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89. Sundaram A.Y.M., Kiron V., Dopazo J. & **Fernandes J.M.O.** MicroRNA profiling of zebrafish embryos following antigenic stimulation. Genomics in Aquaculture 2011, Crete, Greece, 14-17 September 2011.
88. Gambardella C., Kollias S., Sarropoulou E., Fasulo S., Ferrando S. & **Fernandes J.M.O.** Characterization of leptin in sea bass, *Dicentrarchus labrax*. LXXII National Congress of the Italian Zoological Union, Bologna, Italy, 5-8 September 2011. (Poster)
87. Valente L.M.P., Campos C., Engrola S., Gavaia P., Sousa V., Rocha E., Conceição L., **Fernandes J.M.O.** Thermal plasticity of muscle cellularity and gene expression in Senegalese sole (*Solea senegalensis*). 2nd Workshop of the former COST Action 925 entitled: "The importance of prenatal events for postnatal muscle growth in relation to the quality of muscle based foods", Agroscope Liebefeld Posieux research station, Switzerland, 22-23 August 2011.
86. Nagasawa K., Lazado C.C. & **Fernandes J.M.O.** Genomics of growth plasticity in Atlantic cod. Aqua Nor 2011, Trondheim, Norway, 16-19 August 2011 (Poster)
85. Lazado C.C., Nagasawa K. & **Fernandes J.M.O.** Circadian rhythmicity and growth in Atlantic cod. Aqua Nor 2011, Trondheim, Norway, 16-19 August 2011 (Poster)
84. Sundaram A.Y.M., Kiron V. & **Fernandes J.M.O.** Teleost-specific toll-like receptors *tlr21* and *tlr22*. 7th European Zebrafish Meeting, Edinburgh, UK, 5-9 July 2011. (Poster)
83. **Fernandes J.M.O.** miRNAs and epigenetic regulation of muscle development in teleosts. Fish Muscle Growth and Repair: Models Linking Biomedicine and Aquaculture" Workshop, West Sussex, UK, 26-29 June 2011. **(Invited speaker)**
82. Nagasawa K., Lazado C.C. & **Fernandes J.M.O.** How light influences muscle growth in Atlantic cod. Fish Muscle Growth and Repair; Models Linking Biomedicine and Aquaculture Workshop, Sussex, UK, 26-29 June 2011. (Poster)
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77. Nagasawa K., Giannetto A., Lazado C.C. & **Fernandes J.M.O.** Influence of photoperiod on gene expression of DNA methyltransferases, histone methyltransferases and myogenic factors in fast muscle of Atlantic cod, *Gadus morhua*. World Aquaculture 2011, Natal, Brazil, 6-10 June 2011.
76. Nagasawa K., Presslauer C., Kirtiklis L., **Fernandes J.M.O.** & Babiak I. Gonadal maturation and gene expression changes in sex steroid receptors and aromatase in Atlantic cod, *Gadus morhua* L. World Aquaculture 2011, Natal, Brazil, 6-10 June 2011. (Poster)
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74. Lazado C.C., Nagasawa K., Giannetto A. & **Fernandes J.M.O.** Circadian periodicity of the molecular clock in Atlantic cod and its implications in precocious sexual maturation. World Aquaculture 2011, Natal, Brazil, 6-10 June 2011. **(Poster - winner of the prize for best poster)**
73. Lazado C.C., Nagasawa K. & **Fernandes J.M.O.** Proliferation and differentiation of myosatellite cells of Atlantic cod *in vitro*. World Aquaculture 2011, Natal, Brazil, 6-10 June 2011.

72. Giannetto A., **Fernandes J.M.O.**, Mauceri A. & Fasulo S. Gonadal development and expression profiles of miRNAs in *Gadus morhua*. 57th GEI (Italian Embryology Group) meeting, Monteortone, Italy, 5-8 June 2011.
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70. Campos C., Conceição L., Valente L.M.P. & **Fernandes J.M.O.** Epigenetic regulation of development and growth in Senegalese sole (*Solea senegalensis*). Workshop - The Cultivation of Soles V, University of the Algarve, Faro, Portugal, 5-7 April 2011.
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67. Lazado C.C., Nagasawa K. & **Fernandes J.M.O.** Genome-wide screen of molecular markers of muscle growth and sexual maturation in Atlantic cod, *Gadus morhua*. 5th International Conference on Marine Bioprospecting, Tromsø, Norway, 23-25 February 2011. (Poster)
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65. Ruangsri J., Juntarut P., Brinchmann M., Caipang C., Kiron V. & **Fernandes J.M.O.** Piscidin: a natural antibiotic isolated from Atlantic cod, *Gadus morhua*. 5th International Conference on Marine Bioprospecting, Tromsø, Norway, 23-25 February 2011. (Poster)
64. Presslauer C., Nagasawa K., Kirtiklis L., **Fernandes J.M.O.** & Babiak I. Changes in expression of steroid receptors and aromatase in Atlantic cod during a maturation cycle. Research Council's High North Conference, Tromsø, Norway, 10-11 November 2010. (Poster)
63. Lazado C.C., Nagasawa K. & **Fernandes J.M.O.** Myogenic satellite cells of Atlantic cod: development of an *in vitro* model to study muscle growth. Research Council's High North Conference, Tromsø, Norway, 10-11 November 2010. (Poster)
62. Bizuayehu T.T., Lanes C.F.C., Furmanek T., Karlsen B.O., **Fernandes J.M.O.**, Johansen S.D. & Babiak I. MicroRNA profiling using SOLiD 3 platform during early development of Atlantic halibut (*Hippoglossus hippoglossus*). Aquaculture Europe 2010, Porto, Portugal, 5-8 October 2010. (Poster)
61. Nagasawa K., Gianetto A., Kirtiklis L., Lazado C. & **Fernandes J.M.O.** Photoperiodic treatment promotes weight gain and influences gene expression of histone methyl transferases in Atlantic cod (*Gadus morhua*). Aquaculture Europe 2010, Porto, Portugal, 5-8 October 2010. (Poster)
60. Binoy Rajan B., Fernandes J.M.O., Caipang C.M.A., Kiron V. & Brinchmann M.F. Characterizing the skin mucosa proteome of Atlantic cod *Gadus morhua*. Aquaculture Europe 2010, Porto, Portugal, 5-8 October 2010. (Poster)
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58. Ruangsri J., Juntarut P., Brinchmann M.F., Kiron V. & **Fernandes J.M.O.** Characterization and molecular evolution of a piscidin gene from Atlantic cod (*Gadus morhua* L.). Aquaculture Europe 2010, Porto, Portugal, 5-8 October 2010. (Poster)
57. Valente L.M.P., Moutou K., Conceicao L., Galloway T., **Fernandes J.M.O.** & Johnston I. What determines growth potential and quality of farmed European fish species? a review. Aquaculture Europe 2010, Porto, Portugal, 5-8 October 2010.
56. Campos C., Conceição L., Valente L.M.P. & **Fernandes J.M.O.** Incubation temperature affects methyltransferases expression during ontogeny of Senegalese sole (*Solea senegalensis*). Aquaculture Europe 2010, Porto, Portugal, 5-8 October 2010. (Poster)
55. Giannetto A., Fasulo S., Mauceri A. & **Fernandes J.M.O.** miRNA and sexual maturation in Atlantic cod females. LXXI National Congress of the Italian Zoological Union, Palermo, Italy, 20-23 September 2010.

54. **Fernandes J.M.O.** Diversity of antimicrobial peptides from teleosts. Doctoral Research Seminars, University of Messina, Messina, Italy, 29th July 2010. **(Invited speaker)**
53. Brinchmann M.F., Rajan B., Caipang C.M.A., **Fernandes J.M.O.** & Kiron V. Proteome based expression analysis of potential immune markers in skin mucosal surfaces of Atlantic cod (*Gadus morhua*). 9th Congress of International Fish Biology, Barcelona, Spain, 5-7 July 2010. (Poster)
52. Kollias S., **Fernandes J.M.O.**, Papandroulakis N., Pavlidis M. Development of a chronic mild stress (CMS) model in fish for the study of the neuroendocrine mechanisms of stress in European seabass (*Dicentrarchus labrax*). 9th Congress of International Fish Biology, Barcelona, Spain, 5-7 July 2010. (Poster)
51. **Fernandes J.M.O.** Photoperiod regime, sexual maturation, muscle growth and transcriptomal responses in Atlantic cod. 9th Congress of International Fish Biology, Barcelona, Spain, 5-7 July 2010. **(Invited speaker)**
50. Sarropoulou E., **Fernandes J.M.O.**, Mittera K., Magoulas A., Mulero V., Sepulcre P., Figueras A., Novoa B. & Kotoulas G. Evolution of a multifunctional gene and its involvement in immune response: The warm temperature acclimation protein Wap65 in the European seabass *Dicentrarchus labrax*. 9th Congress of International Fish Biology, Barcelona, Spain, 5-7 July 2010.
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48. Lanes C.F.C., Bizuayehu T., **Fernandes J.M.O.**, Viswanath K. & Babiak I. Biochemical composition and quality of Atlantic cod (*Gadus morhua*) eggs: comparison between farmed and wild broodstock. 9th Congress of International Fish Biology, Barcelona, Spain, 5-7 July 2010. **(Poster - winner of the prize for best poster)**
47. Nagasawa K., Gianetto A., Kirtiklis L. & **Fernandes J.M.O.** The Mll genes in Atlantic cod (*Gadus morhua*) and their expression during photoperiod manipulation. 9th Congress of International Fish Biology, Barcelona, Spain, 5-7 July 2010. (Poster)
46. Campos C., Conceição L., Valente L.M.P. & **Fernandes J.M.O.** Thermal plasticity of methyltransferases' expression during ontogeny of Senegalese sole. 9th Congress of International Fish Biology, Barcelona, Spain, 5-7 July 2010.
45. **Fernandes J.M.O.**, Campos C. & Valente L.M.P. Molecular evolution of zebrafish *dnmt3* genes and differential expression in relation to embryonic temperature. Society for Experimental Biology Annual Main Meeting, Prague, Czech Republic, 30 June - 3 July 2010. **(Invited speaker)**
44. **Fernandes J.M.O.**, Giannetto A. & Nagasawa K. DNA and histone methyltransferases in Atlantic cod (*Gadus morhua*) and their photic-related expression changes. Society for Experimental Biology Annual Main Meeting, Prague, Czech Republic, 30 June - 3 July 2010. (Poster)
43. Ruangsri J., Juntarut P., Brinchmann M.F., Kiron V. & **Fernandes J.M.O.** Piscidin: a key innate defense peptide of Atlantic cod (*Gadus morhua*). First Symposium of the European Organisation of Fish Immunology, Viterbo, Italy, 23-27 May 2010. **(Poster - winner of the prize for second best poster)**
42. Pongsaton J., Ruangsri J., Brinchmann M.F., Kiron V., **Fernandes J.M.O.** Synergistic activity of an antibacterial peptide from Atlantic cod (*Gadus morhua* L.) with other antibacterial agents. First Symposium of the European Organisation of Fish Immunology, Viterbo, Italy, 23-27 May 2010.
41. Rajan B., Caipang C.M.A., **Fernandes J.M.O.**, Kiron V. & Brinchmann M.F. Proteome based expression analysis of potential immune markers in the mucosal tissues of Atlantic cod (*Gadus morhua*). Norwegian Research Council Aquaculture Meeting (Havbruk 2010), Trondheim, Norway, 19-21 April 2010.
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38. Sundaram A. & **Fernandes J.M.O.** Zebrafish TLR network response to different bacterial infections - a bioinformatic analysis. The Annual ZNN Conference and Meeting, Oslo, Norway, 12-13 November 2009. (Poster)
37. **Fernandes J.M.O.**, Campos C. & Valente L.M.P. Epigenetic regulation of growth by dietary lipids in Senegalese sole (*Solea Senegalensis*). Asian Pacific Aquaculture 2009, Kuala Lumpur, Malaysia, 4-6 November 2009.

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35. **Fernandes J.M.O.**, Solberg C. & Johnston I.A. Genomic screen for novel genes regulating growth in teleosts. 3rd Joint Trans-Atlantic Fisheries Technology Conference, Copenhagen, Denmark, 15-18 September 2009. (Poster)
34. Campos C., Valente L.M.P. & **Fernandes J.M.O.** Influence of dietary lipids on growth and expression of key myogenic genes in Senegalese sole. 3rd Joint Trans-Atlantic Fisheries Technology Conference, Copenhagen, Denmark, 15-18 September 2009.
33. Tollefsen K.E., Mommens M., Babiak I. & **Fernandes J.M.O.** Development of a halibut (*Hippoglossus hippoglossus*) oligonucleotide microarray. Genomics in Aquaculture Symposium, Bodø, Norway, 5-7 July 2009. (Poster)
32. **Fernandes J.M.O.**, Solberg C. & Johnston I.A. A genomic screen to identify genes that control muscle growth in Atlantic salmon (*Salmo salar*). Genomics in Aquaculture Symposium, Bodø, Norway, 5-7 July 2009. (Poster)
31. Campos C., Valente L.M.P., Borges P., Bizuayehu T. & **Fernandes J.M.O.** Dietary lipid levels have a remarkable impact on the expression of growth-related genes in Senegalese sole (*Solea senegalensis* Kaup). Genomics in Aquaculture Symposium, Bodø, Norway, 5-7 July 2009. (Poster)
30. Hagen Ø., **Fernandes J.M.O.**, Solberg C. & Johnston I. Expression of genes involved in Atlantic halibut (*Hippoglossus hippoglossus*) metabolism, a fasting and refeeding study. Genomics in Aquaculture Symposium, Bodø, Norway, 5-7 July 2009. (Poster)
29. Ruangsri J., Caipang C.M., Viswanath K. & **Fernandes J.M.O.** Cloning, characterization and expression study of antimicrobial peptide, piscidin from Atlantic cod, *Gadus morhua*. Genomics in Aquaculture Symposium, Bodø, Norway, 5-7 July 2009. (Poster)
28. Mommens M., **Fernandes J.M.O.**, Bizuayehu T., Johnston, I.A. & Babiak, I. Maternal EST library: A screening for molecular markers for egg quality in Atlantic halibut (*Hippoglossus hippoglossus* L.). Genomics in Aquaculture Symposium, Bodø, Norway, 5-7 July 2009. (Poster)
27. **Fernandes J.M.O.**, Ruangsri J. & Viswanath K. Molecular evolution of the piscidin gene from teleosts through positive selection. Society for Experimental Biology Annual Main Meeting, Glasgow, UK, 28 June - 1 July 2009. (Poster)
26. Ruangsri J., **Fernandes J.M.O.**, Brinchmann M. & Viswanath K. Potent antimicrobial activity in various tissues of Atlantic cod (*Gadus morhua* L.). 11th Congress of the International Society of Developmental & Comparative Immunology, Prague, Czech Republic, 28 June - 4 July 2009. (Poster)
25. **Fernandes J.M.O.**, Macqueen D.J., Lee, H.-T. & Johnston I.A. Evolutionary and genomic analyses of *cee*, a novel but ancient gene involved in development. The 7th Asia Pacific Bioinformatics Conference, Beijing, China, 13-16 January 2009. (Poster)
24. **Fernandes J.M.O.** & Johnston I.A. Using genomics to identify novel genes associated with muscle growth in Atlantic salmon. 5th World Fisheries Congress, Yokohama, Japan, 20-24 October 2008. (**Invited speaker**)
23. Hagen Ø., **Fernandes J.M.O.**, Solberg C. & Johnston I.A. Identification of underlying mechanisms controlling cathepsin activity associated to flesh quality deterioration in Atlantic halibut, *Hippoglossus hippoglossus* L. 38th WEFTA Annual Meeting, Florence, Italy, 17-19 September 2008.
22. **Fernandes J.M.O.**, Macqueen D.J., Lee, H.-T. & Johnston I.A. *Cee*, a novel but ancient gene under strict purifying selection. Mara 2008: From Molecules to Migration, Maasai Mara, Kenya, 19-25 July 2008. (Poster)
21. Mommens M., **Fernandes J.M.O.**, Hagen Ø., Babiak I. & Solberg C. Potential reference genes for real-time PCR studies during early Atlantic halibut (*Hippoglossus hippoglossus*) development. 6th International Symposium on Fish Endocrinology, Calgary, Canada, 22-27 June 2008. (Poster)
20. **Fernandes J.M.O.**, Mommens M., Hagen Ø., Babiak I. & Solberg C. Selection of suitable reference genes for real-time PCR studies of Atlantic halibut development. First International Congress of Seafood Technology, Izmir, Turkey, 18 - 21 May 2008. (Poster)
19. **Fernandes J.M.O.**, Solberg C. & Johnston I.A. Discovering novel genes that regulate muscle growth in Atlantic salmon. 37th WEFTA Annual Meeting, Lisbon, Portugal, 24-27 October 2007.

18. **Fernandes J.M.O.**, Macqueen D.J., Lee, H.-T. & Johnston I.A. Phylogeny and evolution of *cee*, an ancient gene of unknown function. Society for Experimental Biology Annual Main Meeting, Glasgow, UK, 31 March - 4 April 2007. (Poster)
17. **Fernandes J.M.O.**, MacKenzie M., Kinghorn J. & Johnston I.A. Differential expression of three *FoxK1* splice variants in relation to embryonic temperature in the tiger pufferfish. Society for Experimental Biology Annual Main Meeting, Glasgow, UK, 31 March - 4 April 2007. (Poster)
16. Macqueen D.J., **Fernandes J.M.O.** & Johnston I.A. Characterization and expression of *cee*, a highly conserved and novel gene of unknown function. Society for Experimental Biology Annual Main Meeting, Glasgow, UK, 31 March - 4 April 2007.
15. **Fernandes J.M.O.**, MacKenzie M., Kinghorn J. & Johnston I.A. Exploiting the *Takifugu rubripes* genome to investigate the plasticity of myogenesis to environmental temperature. Environmental Genomics Scientific Achievement Meeting, Stratford-upon-Avon, UK, 23-24 October 2006. (**Invited speaker**)
14. **Fernandes J.M.O.** & Johnston I.A. An integrative approach to adaptation and growth of fish skeletal muscle. Dynamics of the Ocean Biosystem, DOBIS International Symposium, Tokyo, Japan, 15-18 November 2005. (**Invited speaker**)
13. **Fernandes J.M.O.**, MacKenzie M., Kinghorn J. & Johnston I.A. Functional genomic approaches to investigating developmental plasticity to temperature in the model pufferfish species (*Takifugu rubripes*). Society for Experimental Biology Annual Main Meeting, Barcelona, Spain, 11-15 July 2005. (**Invited speaker**)
12. MacKenzie M., **Fernandes J.M.O.**, Kinghorn J. & Johnston I.A. Exploiting the *Takifugu rubripes* genome to identify novel genes involved in myotube formation and their role in temperature-induced developmental plasticity. Environmental Genomics Workshop, Exeter, UK, 18-19 April 2005.
11. **Fernandes J.M.O.**, Mackenzie M., Kinghorn J. & Johnston I.A. Unravelling the genetic networks that regulate muscle growth in *Takifugu rubripes*. Symposium on Functional Genomics of Pufferfish, Tokyo, 3-6 November 2004. (**Invited speaker**)
10. **Fernandes J.M.O.**, Mackenzie M., Kinghorn J. & Johnston I. Cloning and characterisation of myogenic genes from *Takifugu rubripes*. Symposium on Functional Genomics of Pufferfish, Tokyo, Japan, 3-6 November 2004. (Poster)
9. **Fernandes J.M.O.**, Mackenzie M., Watabe S., Suzuki Y., Elgar G., Kinghorn J. & Johnston I. Profiling gene expression in fast skeletal muscle of the Japanese puffer fish and identification of novel genes that regulate myotube formation. European Society for Comparative Physiology and Biochemistry 23rd Annual Conference, Cesenatico, Italy, 23-26 September 2004.
8. **Fernandes J.M.O.**, Mackenzie M., Kinghorn J. & Johnston I.A. Gene networks regulating muscle growth in *Takifugu rubripes* and their responses to temperature. Environmental Genomics Workshop, Manchester, UK, 5-6 April 2004.
7. Johnston I.A., **Fernandes J.M.O.**, Mackenzie M., Sibthorpe D., Vieira V.L., Abercromby M. & Kinghorn J. Genomic approaches to understanding complex muscle phenotypes in teleosts. Gordon Research Conference on Evolutionary & Ecological Functional Genomics, New Hampshire, USA, 3-8 August 2003.
6. **Fernandes J.M.O.** & Smith V.J. Histones and other unusual antimicrobial peptides from rainbow trout. 9th Congress of the International Society of Developmental & Comparative Immunology, St Andrews, UK, 1-5 July 2003 (**Invited speaker**).
5. **Fernandes J.M.O.**, MacKenzie M., Kinghorn J. & Johnston I.A. Data mining the Fugu genome to characterize genes regulating muscle growth and their responses to temperature in a marine fish. Environmental Genomics Workshop, University of Bristol, UK, 14-15 April 2003.
4. **Fernandes J.M.O.** Antimicrobial proteins in skin secretions of rainbow trout. Workshop at the Institute of Fisheries and Aquaculture, Tromsø, Norway, 7-11 May 2001.
3. Smith V.J., **Fernandes J.M.O.** & Kemp G.D. Antimicrobial factors in skin secretions of rainbow trout. International Congress on the Biology of Fish, Aberdeen, UK, 23-27 July 2000.
2. **Fernandes J.M.O.**, Kemp G. D. & Smith V.J. Antimicrobial factors in skin secretions of rainbow trout. 8th Congress of the International Society of Developmental & Comparative Immunology, Cairns, Australia, 2-6 July 2000.
1. **Fernandes J.M.O.**, Smith V.J. & Jones S.J. Antibacterial proteins in rainbow trout. The Fisheries Society of the British Isles Annual International Symposium, St Andrews, UK, 5-8 July 1999.

Scientific Refereeing

Project reviewer

- Spanish National Research Council, Validation of ERC ideas (2024).
- European Research Council, EU (2021).
- Marie Skłodowska-Curie actions (H2020), EU (2020).
- Blue Growth Work Programme for Research and Innovation (H2020), EU (2018-2019).
- Research Foundation - Flanders (FWO), Belgium (2018-2020).
- Genome Atlantic, Canada (2018-2019).
- Flemish Interuniversity Council (VLIR-UOS), Belgium (2017).
- Newton International Fellowships (Royal Society), UK (2017, 2023).
- Cooperation in Fisheries, Aquaculture and Seafood Processing (COFASP ERA-Net), EU (2014).
- Sêr Cymru National Research Network for Low Carbon, Energy and the Environment (NRN-LCEE), UK (2014).
- Italian Ministry for Education, University and Research (MIUR), Italy (2012-2013).
- Norwegian Seafood Research Fund (FHF), Norway (2012, 2020).
- National Commission for Scientific & Technological Research (FONDECYT), Chile (2011).
- British Biotechnology and Biological Sciences Research Council (BBSRC), UK (2008).

Editorial duties

2024-2025	Guest Editor for the special issue "Fish Genomics and Developmental Biology, 2 nd Edition" in the <i>International Journal of Molecular Sciences</i>
2022-2023	Guest Editor for the special issue "Genomics in Aquaculture 2022" in <i>Genomics</i>
2022-2023	Topic editor of the special issue "Methodological Approaches for Fish Reproduction Management" for <i>Frontiers in Marine Science</i> .
2022-2023	Guest editor of the special issue "Fish Genomics and Developmental Biology" for the <i>International Journal of Molecular Sciences</i> .
2015 - 2023	Editorial Board Member for <i>Scientific Reports</i> .
2014 - 2022	Academic editor of <i>PLoS ONE</i> .
2013 - present	Editor of <i>PeerJ</i> .
2012 - 2019	Editor of <i>Fisheries Science</i> .
2011 - 2012	International editor of <i>Marine Biotechnology</i> .
2011 - present	Review editor for <i>Frontiers in Genetics</i> .
2010 - 2017	Editorial board member of <i>Marine Genomics</i> .
2010 - 2011	Guest editor for <i>Comparative Biochemistry and Physiology</i> .
2008 - 2021	Editorial board member of <i>Acta Histochemica</i> .

Reviewer

Regular referee for the journals PLoS ONE; Scientific Reports; Epigenetics; Heredity; BMC Genomics; BMC Molecular Biology; BMC Research Notes; Physiological Genomics; Marine Biotechnology; Fish and Shellfish Immunology; Developmental and Comparative Immunology; FEBS Journal; Gene, Marine Genomics; Comparative Biochemistry and Physiology; Aquaculture Research; Journal of Fish Biology; Fish Physiology and Biochemistry; Aquatic Biology; Arxius de Miscellània Zoològica; Mitochondrion.

Professional Memberships

2024 - present	BlueCatNet (Spain)
2023 - present	Sigma Xi, The Scientific Research Honor Society (USA)
2019 - 2021	Research Foundation Flanders Fellowship Panel (Applied Biological Sciences)

2021- present	European Aquaculture Society
2007 - 2011	The American Physiological Society
2007 -	International Society for Developmental & Comparative Immunology
2004 -	Society for Experimental Biology
2003 - 2004	The Company of Biologists (contributor for the <i>Outside</i> section of the <i>Journal of Experimental Biology</i>)
2000 - 2001	The Fisheries Society for the British Isles
1998 - 1999	Society for General Microbiology

Complementary Qualifications

IT	Familiar with Debian GNU/Linux and Windows operating systems. Knowledge of genome data mining and general sequence and EST analysis software (Ensembl, DNAMAN, Sequencher, PhredPhrap, Omega, Artemis, trace2dbEST, Partigene, prot4EST, annot8er), phylogenetic analysis packages (Phylip), phylogenetic footprinting software (rVista, Consite, Theatre) and PostgreSQL databases
Techniques	Extensive training in molecular biology (namely cloning, preparation of cDNA libraries and DNA sequencing), protein purification and characterisation techniques (particularly HPLC), microbiology (including antibacterial assays) and UV/visible spectrophotometry
Languages	Fluent speaker of Portuguese (native language), English and French. Reasonable comprehension of Spanish. Elementary knowledge of Mandarin (first year chinese course, Macao Mission, Lisbon, 1997)
Other	- Home Office licence to perform experimental procedures on fish, modules one, two and three of the "Accredited training for Personnel working under the Animals (Scientific Procedures) Act 1986", UK, 1998 - Full EU driving license, Portugal, 1993
Courses	- Emergency preparedness for aquatic disease outbreaks, 20 December 2024 (FAO elearning Academy, online) - Genome assembly using Oxford Nanopore sequencing, 11-14 April 2022 (Physalia, online) - Data Science: R Basics (PH125.1x), 5-26 April 2022 (edX/ Harvard University, online) - Chemical handling, 29-30 November 2021 (Kiwa AS, Nord University, Norway) - Developing Doctoral Supervision module III, 16-17 November 2016 (Nord University, Norway) - DNA Methylation Data Analysis Workshop, 15-17 December 2015 (ECSEQ Bioinformatics, Germany) - Developing Doctoral Supervision module II, 29-30 September 2015 (University of Agder, Norway) - Developing Doctoral Supervision module I, 9-10 June 2015 (University of Agder, Norway) - Project Proposal Management, 22-23 September 2014 (Bodø, Norway) - CLC Genomics Workshop, 3 April 2014 (Nord University, Norway) - Management course Performance through People, 18-20 September 2013 (Ashridge Business School, UK) - Course in Laboratory Animal Science, 3-7 May 2010 (Norwegian School of Veterinary Science, Norway) - International course of microarray data analysis, 9-13 March 2009 (CIPF, Spain) - Multivariate data analysis, 18-21 June 2007 (Bodo, Norway) - MIAME, MIAME/Env and maxLoad2, 15 September 2004 (Edinburgh, UK) - Diversity awareness, 1 April 2004 (St Andrews, UK) - EST Bioinformatics workshop, 1 December 2003 (Edinburgh, UK) - Advanced Bio-Linux, 29 July 2003 (Oxford, UK) - Introduction to Bio-Linux, 28 July 2003 (Oxford, UK)

Research Interests

In a nutshell, I am using Genomics and Molecular Biology to study muscle growth and the innate immune system in teleosts. My main research interests are antimicrobial peptides, microRNAs and the epigenetic regulation of gene networks by environmental factors, such as temperature and photoperiod. My research is aimed at commercially important species such as European sea bass, Nile tilapia, Atlantic cod, Atlantic halibut, Atlantic salmon and Senegalese sole but I also use zebrafish as a convenient model species.