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

Education

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| 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

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| 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

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| 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 (*Salmo salar*). Funded by the Regional Research Fund RFFNORD (2,645,000 NOK, Ref. 248028). Work package leader.
- 2014-2017 Exosomes from salmon (*Salmo salar*) 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 *Solea senegalensis* 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 (*Solea senegalensis*). 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 *Fucus serratus*, 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-present	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

37. 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.
36. 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.
35. 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.
34. 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.
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-present). 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 Siriyappagoudar (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 Jeppinamoggeru (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 Kaitetzidou (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 Luliia Belova (2013-2015). Supervisor of the thesis entitled 'Nutritional programming in lump sucker, *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. Kaleramma (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

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. Zacccone 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 Zacccone G., Marchalonis J.J., Schluter S.F., Meseguer J. & Kapoor B.G. Science Publishers (USA), pp 241–276.

Peer-Reviewed Scientific Publications (6486 citations in [Google Scholar](#), h-index: 45)

ORCID iD: 0000-0002-2550-1640

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., Calduch-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., Siriyappagouder P., Sharko F., Nedoluzhko A., Joshi R., Galindo-Villegas J., Raeymaekers J.A.M. & **Fernandes J.M.O.** (2024). Thermal plasticity of the muscle circRNA transcriptome during early development has long-term effects on 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* doi: 10.1080/23308249.2024.2377999
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* doi: 10.1101/cshperspect.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., Siriyappagouder 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., Sætrom 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., Siriyappagouder 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* doi.org/10.1093/zoolinnea/zlad099.
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., Siriyappagouder 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., Siriyappagouder 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., Sætrum 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., Guerrero 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., Pourmoghadam 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., Martin 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. Zaccone 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., Zaccone 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., Siriyappagounder 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.
117. Rbbani M.G., Nedoluzhko A., Galindo-Villegas J. & **Fernandes J.M.O.** (2021). Function of circular RNAs in fish and their potential application as biomarkers. *International Journal of Molecular Sciences* 22 (13): 7119.
116. Konstantinidis I., Anastasiadi D., Sætrom P., Nedoluzhko A.V., Mjelle R., Podgorniak T., Piferrer F. & **Fernandes J.M.O.** (2021). Epigenetic mapping of the somatotropic axis in Nile tilapia reveals differential DNA hydroxymethylation marks associated with growth. *Genomics* 113 (5): 2953-2964.
115. Shalgimbayeva G.M., Volkov A.A., Slobodova N.V., Sharko F.S., Tsygankova S.V., Boulygina E.S., Nguyen V.Q., Pham T., Nguyen T.D., Assylbekova S.Z., Alekseev Y., Nedoluzhko A.V., **Fernandes J.M.O.** & Rastorguev S.M. (2021). Genetic investigation of Aral wild common carp population (*Cyprinus carpio*) using ddRAD sequencing. *Diversity* 13: 295.
114. Rehman S., Gora A.H., Siriyappagounder P., **Fernandes J.M.O.**, Dias J. & Kiron V. (2021). Zebrafish intestinal transcriptome highlights subdued inflammatory responses and the efficacy of yeast β -glucan. *Journal of Fish Diseases* 44 (10): 1619-1637.
113. Martínez-Llorens S., Falk-Petersen I.B., Godoy-Olmos S., Ulleberg L.O., Tomás-Vidal A., Puvanendran V., Odei D.K., Hagen Ø., **Fernandes J.M.O.**, Jobling M. & Peruzzi S. (2021). Digestive tract morphology and enzyme activities of juvenile diploid and triploid Atlantic salmon (*Salmo salar*) fed fishmeal-based diets with or without fish protein hydrolysates. *PLoS One* 16(1): e0245216.
112. Capillo G., Zacccone G., Cupello C., **Fernandes J.M.O.**, Kiron V., Kuciel M., Zuwala K., Guerrero M.C., Aragona M., Icardo J.M. & Lauriano E.R. (2021). Expression of acetylcholine, its contribution to regulation of immune function and O₂ sensing and phylogenetic interpretations of the African butterfly fish *Pantodon buchholzi* (Osteoglossiformes, Pantodontidae). *Fish and Shellfish Immunology* 111: 189-200.
111. Saito T., Whatmore P., Taylor J.F., **Fernandes J.M.O.**, Bock C., Adam A.-C., Espe M. & Skjærven K.H. (2021). Micronutrient supplementation affects transcriptional and epigenetic regulation of lipid metabolism in a dose-dependent manner. *Epigenetics* 16(11): 1217-1234.
110. Kiron V., Park Y., Siriyappagounder P., Dahle D., Vasanth G., Dias J., **Fernandes J.M.O.**, Sørensen M. & Verlhac-Trichet V. (2020). Intestinal transcriptome analysis reveals soy derivative-linked changes in Atlantic salmon. *Frontiers in Immunology* 11: 596514.
109. López-Cánovas A.E., Cabas I., Chaves-Pozo E., Ros-Chumillas M., Navarro-Segura L., López-Gómez A., & **Fernandes J.M.O.**, Galindo-Villegas J. & García Ayala A. (2020). Nanoencapsulated clove oil applied as an

anaesthetic at slaughtering decreases stress, extends the freshness, and lengthens shelf life of cultured fish. *Foods* 9: 1750.

108. Oliveira C.C.V., Fatsini E., Fernández I., Anjos C., Chauvigné F., Cerdà J., Mjelle R., **Fernandes J.M.O.**, Cabrita E. (2020). Kisspeptin influences the reproductive axis and circulating levels of microRNAs in the flatfish Senegalese sole. *International Journal of Molecular Sciences* 21(23): 9051.

107. Dhanasiri A.K.S., Johny A., Xue X., Berge G.M., Bøgevik A.S., Rise M.L., Fæste C.K. & **Fernandes J.M.O.** (2020). Plant-based diets induce transcriptomic changes in muscle of zebrafish and Atlantic salmon. *Frontiers in Genetics* 11: 575237.

106. Park Y., Zhang Q., Wiegertjes G.F., **Fernandes J.M.O.** & Kiron V. (2020). Adherent intestinal cells from Atlantic salmon show phagocytic ability and express macrophage-specific genes. *Frontiers in Cell and Developmental Biology* 8: 580848.

105. Odei D.K., Hagen Ø., Peruzzi S., Falk-Petersen I.-B. & **Fernandes J.M.O.** (2020). Transcriptome sequencing and histology reveal dosage compensation in the liver of triploid pre-smolt Atlantic salmon. *Scientific Reports* 10: 16836.

104. Santos C.A., Andrade S.C.S., **Fernandes J.M.O.** & Freitas P.D. (2020). Shedding the light on *Litopenaeus vannamei* differential muscle and hepatopancreas immune responses in white spot syndrome virus (WSSV) exposure. *Genes* 11: 805.

103. Chen X., Zhang Z., **Fernandes J.M.O.**, Gao Y., Yin P., Liu Y., Tian L., Xie S. & Niu J. (2020). Beneficial effects on growth, haematic indicators, immune status, antioxidant function and gut health in Juvenile Nile tilapia (*Oreochromis niloticus*) by dietary administration of a multi-strain probiotic. *Aquaculture Nutrition* 26 (4): 1369-1382.

102. Siriyappagounder P., Galindo-Villegas J., Dhanasiri A.K. S., Zhang Q., Mulero V., Kiron V. & **Fernandes J.M.O.** (2020). Pseudozyma priming influences expression of genes involved in metabolic pathways and immunity in zebrafish larvae. *Frontiers in Immunology* 11: 978.

101. Nedoluzhko A.V., Slobodova N.V., Sharko F.S.2, Shalgimbayeva G.M., Tsygankova S.V., Boulygina E.S., Jeney Z., Nguyen V.Q., Pham T.T., Nguyen D.T., Volkov A.A., **Fernandes J.M.O.** & Rastorguev S.M. (2020). A new strain group of common carp: the genetic differences and admixture events between *Cyprinus carpio* breeds. *Ecology and Evolution* 10: 5431-5439.

100. Konstantinidis I., Sætrom P., Mjelle R., Nedoluzhko A.V., Robledo D. & **Fernandes J.M.O.** (2020). Major gene expression changes and epigenetic remodelling in Nile tilapia muscle after just one generation of domestication. *Epigenetics* 15 (10): 1052-1067.

99. Dhanasiri A.K.S., Chen X., Dahle D., Siriyappagounder P., Fæste C.K. & **Fernandes J.M.O.** (2020). Dietary inclusion of plant ingredients induces epigenetic changes in the intestine of zebrafish. *Epigenetics* 15 (10): 1035-1051.

98. Nedoluzhko A., Sharko F., Rbbani G., Teslyuk A., Konstantinidis I. & **Fernandes J.M.O.** (2020). CircParser: a novel streamlined pipeline for circular RNA structure and host gene prediction in non-model organisms. *Peer J* 8: e8757.

97. Pourmoghdam M., Poorbagher H., **Fernandes J.M.O.** & Jafari O. (2019). Diazinon negatively affects the integrity of environmental DNA stability, a case study with common carp (*Cyprinus carpio*). *Environmental Monitoring and Assessment* 191:672.

96. Gupta S., Lokesh J., Abdelhafiz Y.A., Siriyappagounder P., Pierre R., Sørensen M., **Fernandes J.M.O.** & Kiron V. (2019). Macroalga-derived alginate oligosaccharide alters intestinal bacteria of Atlantic salmon. *Frontiers in Microbiology* 10: 2037.

95. Jafari O., **Fernandes J.M.O.**, Hedayati A.-A., Shabany A. & Pourmoghdam M.N. (2019). Microsatellite analysis of five populations of *Alosa braschnikowi* (Borodin, 1904) across the southern coast of the Caspian Sea. *Frontiers in Genetics* 10: 760.

94. Gupta S., **Fernandes J.M.O.** & Kiron V. (2019). Antibiotic-induced perturbations are manifested in the dominant intestinal bacterial phyla of Atlantic salmon. *Microorganisms* 7: 233.

93. Podgorniak T., Brockmann S., Konstantinidis I. & **Fernandes J.M.O.** (2019). Differences in the fast muscle methylome provide insight into sex-specific epigenetic regulation of growth in Nile tilapia during early stages of domestication. *Epigenetics* 14(8): 818-836.

92. Johny A., Fæste C.K., Bøgevik A., Berge G.M., **Fernandes J.M.O.** & Ivanova L. (2019). Development and validation of a liquid chromatography high-resolution mass spectrometry method for the simultaneous determination of 25 mycotoxins and phytoestrogens in plant-based fish feed and exposed fish. *Toxins* 11: 222.
91. Qiu H., **Fernandes J.M.O.**, Hong W., Wu H.X., Zhang Y.T., Huang S., Liu D.T., Yu H., Wang Q., You X. & Chen S.X. (2019). Paralogues from the expanded Tlr11 gene family in mudskipper (*Boleophthalmus pectinirostris*) are under positive selection and respond differently to LPS/poly(I:C) challenge. *Frontiers in Immunology* 10: 343.
90. Gupta S., Fečkaninová A., Lokesh J., Koščová J., Sørensen M., **Fernandes J.M.O.** & Kiron V. (2019). *Lactobacillus* dominate in the intestine of atlantic salmon fed dietary probiotics. *Frontiers in Microbiology* 9: 3247.
89. Fernandez I., **Fernandes J.M.O.**, Roberto V.P., Koop M., Oliveira C., Riesco M.F., Dias J., Cox C.J., Cancela L., Cabrita E., Gavaia P.J. (2019). Circulating small non-coding RNAs provide new insights into vitamin K nutrition and reproductive physiology in teleost fish. *BBA - General Subjects* 1863(1): 39-51.
88. Siriyappagounder P., Galindo-Villegas J., Lokesh J., Mulero V., **Fernandes J.M.O.** & Kiron V. (2018). Exposure to yeast shapes the intestinal bacterial community assembly in zebrafish larvae. *Frontiers in Microbiology* 9: 1868.
87. Lokesh J., Kiron V., Sipkema D., **Fernandes J.M.O.** & Moum T. (2018). Succession of embryonic and intestinal bacterial communities of Atlantic salmon. *Microbiology Open* e672.
86. Peruzzi S., Puvanendran V., Riesen G., Seim R.R., Hagen Ø., Martínez-Llorens S., Falk-Petersen I.-B., **Fernandes J.M.O.** & Jobling M. (2018). Growth and development of skeletal anomalies in diploid and triploid Atlantic salmon (*Salmo salar*) fed phosphorus-rich diets with fish meal and hydrolyzed fish protein. *PLoS One* 13(3): e0194340.
85. Canada P., Engrola S., Mira S., Teodósio R., Yust M.M., Sousa V., Pedroche J., **Fernandes J.M.O.**, Conceição L.E.C. & Valente L.M.P. (2018). Larval dietary protein complexity affects regulation of muscle growth and expression of DNA methyltransferases in Senegalese sole. *Aquaculture* 491: 28-38.
84. Zhang Q., Kopp M., Babiak I. & **Fernandes J.M.O.** (2018). Low incubation temperature during early development negatively affects survival and related innate immune processes in zebrafish larvae exposed to lipopolysaccharide. *Scientific Reports* 8: 4142.
83. Siriyappagounder P., Kiron V., Lokesh J., Rajeish M., Kopp M. & **Fernandes J.M.O.** (2018). The intestinal mycobiota in wild zebrafish comprises mainly Dothideomycetes while Saccharomycetes predominate in their laboratory-reared counterparts. *Frontiers in Microbiology* 9: 387.
82. Skjærven K.H., Jakt L.M., **Fernandes J.M.O.**, Dahl J.A., Adam A.C. & Espe M. (2018). Parental micronutrient deficiency distorts liver DNA methylation and expression of lipid genes associated with a fatty-liver-like phenotype in offspring. *Scientific Reports* 8: 3055.
81. Canada P., Mira S., Teodósio R., **Fernandes J.M.O.**, Barrios C., Millán F., Pedroche J., Valente L.M.P. & Engrola S. (2017). Dietary protein complexity modulates growth, protein utilisation and the expression of protein digestion-related genes in Senegalese sole larvae. *Aquaculture* 479: 273-284.
80. Presslauer C., Bizuayehu T.T., Kopp M., **Fernandes J.M.O.** & Babiak I. (2017). Dynamics of miRNA transcriptome during gonadal development of zebrafish. *Scientific Reports* 7: 43850.
79. Micallef G., Cash P., **Fernandes J.M.O.**, Rajan B., Tinsley J.W., Bickerdike R., Martin S.A.M. & Bowman A.S. (2017). Dietary yeast cell wall extract alters the proteome of the skin mucous barrier in Atlantic salmon (*Salmo salar*): increased abundance and expression of a calreticulin-like protein. *PLoS ONE* 12(1): e0169075.
78. Skjærven K.H., Jakt L.M., Dahl J.A., Espe M., Aanes H., Hamre K. & **Fernandes J.M.O.** (2016). Parental vitamin deficiency affects the embryonic gene expression of immune -, lipid transport - and apolipoprotein genes. *Scientific Reports* 6: 34535.
77. Presslauer C., Bizuayehu T.T., Razmi K., **Fernandes J.M.O.** & Babiak I. (2016). See-Thru-Gonad zebrafish line: Developmental and functional validation. *Reproduction* 152(5): 507-517.
76. Batista S., Medina A., Pires M.A., Moriñigo M.A., Sansuwan K., **Fernandes J.M.O.**, Valente L.M.P. & Ozório R.O.A. (2016). Innate immune response, intestinal morphology and microbiota changes in Senegalese sole fed plant protein diets with probiotics or autolyzed yeast. *Applied Microbiology and Biotechnology* 100(16):7223-7238.
75. Canada P., Engrola S., Mira S., Teodósio R., **Fernandes J.M.O.**, Sousa V., Barriga-Negra L., Conceição L.E.C. & Valente L.M.P. (2016). The supplementation of a microdiet with crystalline indispensable amino-acids affects

muscle growth and the expression pattern of related genes in Senegalese sole (*Solea senegalensis*) larvae. *Aquaculture* 458: 158-169.

74. Batista S., Ozório R.O., Kollias S., Dhanasiri A.K., Lokesh J., Kiron V., Valente L.M.P. & **Fernandes J.M.O.** (2016). Changes in intestinal microbiota, immune- and stress-related transcript levels in Senegalese sole (*Solea senegalensis*) fed plant ingredients diets intercropped with probiotics. *Aquaculture* 458: 149-157.

73. Nagasawa K., Sarropoulou E., Edvardsen V. & **Fernandes J.M.O.** (2016). Substantial downregulation of myogenic transcripts in skeletal muscle of Atlantic cod during the spawning period. *PLoS ONE* 11(2): e0148374.

72. Valente L.M.P., Cabral E.M., Sousa V.F., Cunha L.M. & **Fernandes J.M.O.** (2016). Plant protein blends in diets for Senegalese sole affect skeletal muscle growth, flesh texture and the expression of related genes. *Aquaculture* 453: 77-85.

71. Katan T., Nash G.W., Rise M.L., Hall J.A., **Fernandes J.M.O.**, Boyce D., Johnsen C.A. and Gamperl A.K. (2016). A little goes long way: improved growth in Atlantic cod (*Gadus morhua*) fed small amounts of wild zooplankton. *Aquaculture* 451: 271-282.

70. Smolina I., Kollias S., Møller E.F., Lindeque P., Sundaram A.Y.M., **Fernandes J.M.O.**, Roncalli V., Lenz P. & Hoarau G. (2015). Contrasting transcriptome response to thermal stress in two key zooplankton species, *Calanus finmarchicus* and *C. glacialis*. *Marine Ecology Progress Series* 534: 79-93.

69. Kitani Y., **Fernandes J.M.O.** & Kiron V. (2015). Identification of the Atlantic cod L-amino acid oxidase and its alterations following bacterial exposure. *Developmental and Comparative Immunology* 50(2): 116-120.

68. Presslauer C., Nagasawa K., Dahle D., Babiak J., **Fernandes J.M.O.** & Babiak I. (2014). Induced autoimmunity against gonadal proteins affects gonadal development in juvenile zebrafish. *PLoS ONE* 9(12): e114209.

67. Mommens M., **Fernandes J.M.O.**, Tollefsen K.E., Johnston I.A. & Babiak I. (2014). Profiling of the embryonic Atlantic halibut (*Hippoglossus hippoglossus* L.) transcriptome reveals maternal transcripts as potential markers of embryo quality. *BMC Genomics* 15: 829.

66. Lazado C.C., Kumaratunga H.P.S., Nagasawa K., Babiak I., Caipang C.M.A. & **Fernandes J.M.O.** (2014). *In vitro* and *ex vivo* models indicate that the molecular clock in fast skeletal muscle of Atlantic cod is not autonomous. *Molecular Biology Reports* 41(10): 6679-6689.

65. Kulkarni A.D., Caipang C.M.A., Kiron V., Rombout J.H.W.M., **Fernandes J.M.O.** & Brinchmann M.F. (2014). Evaluation of the immune gene response using an RNAi approach in vaccinated *Penaeus monodon* during oral WSSV infection. *Marine Genomics* 18: 55-65.

64. Lazado C.C., Kumaratunga H.P.S., Nagasawa K., Babiak I., Giannetto A. & **Fernandes J.M.O.** (2014). Daily rhythmicity of clock gene transcripts in Atlantic cod fast skeletal muscle. *PLoS ONE* 9(6): e99172.

63. Campos C., Sundaram A.Y.M., Valente L.M.P., Conceição L.E.C., Engrola S. & **Fernandes J.M.O.** (2014). Thermal plasticity of the miRNA transcriptome during Senegalese sole development. *BMC Genomics* 15: 525.

62. Lazado C.C., Nagasawa K., Babiak I., Kumaratunga H.P.S. & **Fernandes J.M.O.** (2014). Circadian rhythmicity and photoperiodic plasticity of myosin gene transcription in fast skeletal muscle of Atlantic cod (*Gadus morhua*). *Marine Genomics* 18: 21-29.

61. Kulkarni A., Kiron Viswanath, Rombout J.H.W.M., Brinchmann M.F., **Fernandes J.M.O.**, Sudheer N.S. & Singh B.I.S. (2014). Protein profiling in the gut of *Penaeus monodon* gavaged with oral WSSV-vaccines and live white spot syndrome virus. *Proteomics* 14(13-14): 1660-1673.

60. Campos C., Valente L.M.P., Conceição L.E.C., Engrola S. & **Fernandes J.M.O.** (2014). Molecular regulation of muscle development and growth in Senegalese sole larvae exposed to temperature fluctuations. *Aquaculture* 432: 418-425.

59. Nagasawa K., Presslauer C., Kirtiklis L., Babiak I. & **Fernandes J.M.O.** (2014). Sexually dimorphic transcription of estrogen receptors in cod gonads throughout a reproductive cycle. *Journal of Molecular Endocrinology* 52: 357-371.

58. Andersen Ø., Rosa M.C., Yadav P., Pirulli D., **Fernandes J.M.O.**, Berg PR, Jentoft S. & André C. (2014). The conserved Phe GH5 of importance for hemoglobin intersubunit contact is mutated in gadoid fish. *BMC Evolutionary Biology* 14: 54.

57. Jueterbock A., Kollias S., Smolina I., **Fernandes J.M.O.**, Coyer J.A., Olsen J.L. & Hoarau G. (2014). Thermal stress resistance of the brown alga *Fucus serratus* along the North-Atlantic coast: acclimatization potential to climate change. *Marine Genomics* 13: 27-36.

56. **Fernandes J.M.O.**, Giannetto A., Nagasawa K., Mauceri A., Maisano M., Domenico E., Cappello T., Oliva S. & Fasulo S. (2014). Influence of continuous light treatment on expression of stress biomarkers in Atlantic cod. *Developmental and Comparative Immunology* 44(1): 30-34.
55. Campos C., **Fernandes J.M.O.**, Conceição L.E.C., Engrola S., Sousa V. & Valente L.M.P. (2013). Thermal conditions during larval pelagic phase influence subsequent somatic growth of Senegalese sole by modulating gene expression and muscle growth dynamics. *Aquaculture* 414-415: 46-55.
54. Dhanasiri A.K.S., **Fernandes J.M.O.** & Kiron V. (2013). Liver transcriptome changes in zebrafish during adaptation to transport-associated stress. *PLoS ONE* 8(6): e65028.
53. Lanes C.F.C., Bizuayehu T.T., **Fernandes J.M.O.**, Kiron V. & Babiak I. (2013). Transcriptome of Atlantic cod (*Gadus morhua*) early embryos from farmed and wild broodstocks. *Marine Biotechnology* 15(6): 677-694.
52. Campos C., Castanheira M.F., Engrola S., Valente L.M.P., **Fernandes J.M.O.** & Conceição L. (2013). Rearing temperature affects Senegalese sole (*Solea senegalensis*) larvae protein metabolic capacity. *Fish Physiology and Biochemistry* 39(6):1485-1496.
51. Ruangsri J., Kitani Y., Kiron V., Jeppinamoggeru L., Brinchmann M.F., Karlsen B.O. & **Fernandes J.M.O.** (2013). A novel beta-defensin antimicrobial peptide in Atlantic cod with stimulatory effect on phagocytic activity. *PLoS ONE* 8(4): e62302.
50. Bizuayehu T.T., **Fernandes J.M.O.**, Johansen S.D. & Babiak I. (2013). Characterization of novel precursor miRNAs using next generation sequencing and prediction of miRNA targets in Atlantic halibut. *PLoS ONE* 8(4): e61378.
49. Campos C., Valente L.M.P., Conceição L., Engrola S. & **Fernandes J.M.O.** (2013). Temperature affects methylation of the myogenin putative promoter, its expression and muscle cellularity in Senegalese sole larvae. *Epigenetics* 8(4): 389-397.
48. Giannetto A., Nagasawa K. & **Fernandes J.M.O.** (2013). Influence of photoperiod on the expression of DNA (cytosine-5) methyltransferases in Atlantic cod. *Gene* 519: 222-230.
47. Dhanasiri A.K.S., **Fernandes J.M.O.** & Kiron V. (2013). Acclimation of zebrafish to transport stress. *Zebrafish* 10(1): 87-98.
46. Rajan B., Kiron V., **Fernandes J.M.O.**, Rombout J.H.W.M. and Brinchmann M.F. (2013). Localization and immune characteristics of two galectin-1 proteins in Atlantic cod (*Gadus morhua*) mucosal tissues. *Developmental and Comparative Immunology* 40(2): 83-93.
45. Ruangsri J., Lokesh J., **Fernandes J.M.O.** & Kiron V. (2013). Transcriptional regulation of antimicrobial peptides in mucosal tissues of Atlantic cod *Gadus morhua* L. in response to different stimuli. *Aquaculture Research* 45(12): 1893-1905.
44. Campos C., Valente L.M.P., Conceição L., Engrola S., Sousa V., Rocha E., & **Fernandes J.M.O.** (2013). Incubation temperature induces changes in muscle cellularity and gene expression in Senegalese sole (*Solea senegalensis*). *Gene* 516: 209-217.
43. Valente L.M.P., Moutou K.A., Conceição L., Engrola S., **Fernandes J.M.O.** & Johnston I. A. (2013). What determines growth potential and juvenile quality of farmed fish species? *Reviews in Aquaculture* 5 (Suppl. 1): S168-S193.
42. Nagasawa K., **Fernandes J.M.O.**, Yoshizaki G., Miwa M. & Babiak I. (2013). Identification and migration of primordial germ cells in Atlantic salmon, *Salmo salar*: characterization of *vasa*, *dead end*, and *lymphocyte antigen 75* genes. *Molecular Reproduction and Development* 80: 118-131.
41. Sundaram A.Y.M., Kiron V., Dopazo J. & **Fernandes J.M.O.** (2012). Diversification of the expanded teleost-specific toll-like receptor family in Atlantic cod, *Gadus morhua*. *BMC Evolutionary Biology* 12: 256.
40. Lanes C.F.C., **Fernandes J.M.O.**, Kiron V. & Babiak I. (2012). Profiling of key apoptotic, stress and immune-related transcripts during embryonic and post-embryonic development of Atlantic cod (*Gadus morhua* L.) originating from wild or farmed broodstocks. *Theriogenology* 78: 1583-1596.
39. Dhanasiri A.K.S., **Fernandes J.M.O.** & Kiron V. (2012). Glutamine synthetase activity and the expression of three *glul* paralogues in zebrafish during transport. *Comparative Biochemistry and Physiology B* 163:274-284.
38. Lokesh J., **Fernandes J.M.O.**, Korsnes K., Bergh Ø., Brinchmann M.F. & Kiron V. (2012). Transcriptional regulation of cytokines in the intestine of Atlantic cod fed yeast derived mannan oligosaccharide or beta-glucan and challenged with *Vibrio anguillarum*. *Fish and Shellfish Immunology* 33(3): 626-631.

37. Sundaram A., Consuegra S., Kiron V. & **Fernandes J.M.O.** (2012). Positive selection within teleost toll-like receptors tlr21 and tlr22 subfamilies and their response to temperature stress and microbial components in zebrafish. *Molecular Biology Reports* 39(9): 8965-8975.
36. Bizuayehu T.T., Babiak J., Norberg B., **Fernandes J.M.O.**, Johansen S.D. & Babiak I. (2012). Sex-biased expression of miRNAs in Atlantic halibut (*Hippoglossus hippoglossus*) brain and gonads. *Sexual Development* 6: 257–266.
35. Presslauer C., Nagasawa K., **Fernandes J.M.O.** & Babiak I. (2012). Expression of *vasa* and *nanos3* during primordial germ cell formation and migration in Atlantic cod (*Gadus morhua* L.). *Theriogenology* 78: 1262-1277.
34. Lanes C.C., Bolla S., **Fernandes J.M.O.**, Nicolaisen O., Kiron V. & Babiak I. (2012). Nucleotide-enrichment of live feed: a promising protocol for rearing of Atlantic cod *Gadus morhua* larvae. *Marine Biotechnology* 14(5):544-558.
33. Nagasawa K., Giannetto A. & **Fernandes J.M.O.** (2012). Photoperiod influences growth and *mll* (mixed-lineage leukaemia) expression in Atlantic cod. *PLoS ONE* 7(5):e36908.
32. Ruangsri J., **Fernandes J.M.O.**, Rombout J.H.W.M., Brinchmann M. & Kiron V. (2012). Ubiquitous presence of piscidin-1 in Atlantic cod as evidenced by immunolocalisation. *BMC Veterinary Research* 8:46.
31. Micallef G., Bickerdike R., Reiff C., **Fernandes J.M.O.**, Bowman A.S. & Martin S.A.M. (2012). Exploring the transcriptome of Atlantic salmon (*Salmo salar*) skin, a major defensive organ. *Marine Biotechnology* 14(5):559-569.
30. Campos C., Valente L.M.P. & **Fernandes J.M.O.** (2012). Molecular evolution of zebrafish *dnmt3* genes and thermal plasticity of their expression during embryonic development. *Gene* 500: 93-100.
29. Bizuayehu T.T., Lanes C.F.C., Furmanek T., Karlsen B.O., **Fernandes J.M.O.**, Johansen S.D. & Babiak I. (2012). Differential expression patterns of conserved miRNAs and isomiRs during Atlantic halibut development. *BMC Genomics* 13:11.
28. Ruangsri J., Caipang C., Kiron V. & **Fernandes J.M.O.** (2012). Differential expression and biological activity of two piscidin paralogues and a novel splice variant in Atlantic cod (*Gadus morhua* L.). *Fish and Shellfish Immunology* 32: 396-406.
27. Lanes C.F.C., Bizuayehu T.T., Bolla S., Martins C., **Fernandes J.M.O.**, Viswanath K., Bianchini A. & Babiak I. (2012). Biochemical composition and performance of Atlantic cod (*Gadus morhua* L.) eggs and larvae obtained from farmed and wild broodstocks. *Aquaculture* 324–325: 267-275.
26. Rajan B., **Fernandes J.M.O.**, Caipang C., Kiron V., Rombout J. & Brinchmann M. (2011). Proteome reference map of the skin mucus of Atlantic cod (*Gadus morhua*) revealing immune competent molecules. *Fish and Shellfish Immunology* 31: 224-231.
25. Dhanasiri A., Kiron V., **Fernandes J.M.O.**, Bergh Ø. & Powell M. (2011). Novel application of nitrifying bacterial consortia to ease ammonia toxicity in ornamental fish transport units: trials with zebrafish. *Journal of Applied Microbiology* 11(2): 278-292.
24. Noga E.J., Ullal A.J., Corrales J. & **Fernandes J.M.O.** (2011). Application of antimicrobial polypeptide host defenses to aquaculture: exploitation of downregulation and upregulation responses. *Comparative Biochemistry and Physiology D* 6(1): 44-54.
23. Sarropoulou E. & **Fernandes J.M.O.** (2011). Comparative genomics in teleost species: Knowledge transfer by linking the genomes of model and non-model fish species. *Comparative Biochemistry and Physiology D* 6(1): 92-102.
22. Mommens M., **Fernandes J.M.O.**, Bizuayehu T.T., Bolla S.L., Johnston I.A. & Babiak I. (2010). Maternal mRNAs as molecular markers for egg quality in Atlantic halibut (*Hippoglossus hippoglossus* L.). *BMC Research Notes* 3: 138.
21. **Fernandes J.M.O.**, Ruangsri J. & Kiron V. (2010). Atlantic cod piscidin and its diversification through positive selection. *PLoS ONE* 5(3): e9501.
20. Ruangsri J., **Fernandes J.M.O.**, Brinchmann M. & Kiron V. (2010). Antimicrobial activity in the tissues of Atlantic cod (*Gadus morhua* L.). *Fish and Shellfish Immunology* 28: 879-886.
19. Campos C., Valente L.M.P., Borges P., Bizuayehu T. & **Fernandes J.M.O.** (2010). Dietary lipid levels have a remarkable impact on the expression of growth-related genes in Senegalese sole (*Solea senegalensis* Kaup). *Journal of Experimental Biology* 213:200-209.

18. Sarropoulou E., **Fernandes J.M.O.**, Mittera K., Magoulas A., Mulero V., Sepulcre P., Figueras A., Novoa B. & Kotoulas G. (2010). Evolution of a multifunctional gene: The warm temperature acclimation protein *Wap65* in the European seabass *Dicentrarchus labrax*. *Molecular Phylogenetics and Evolution* 55:640-649.
17. Hagen Ø., **Fernandes J.M.O.**, Solberg C. & Johnston I.A. (2009). Expression of growth-related genes during fasting and refeeding in juvenile Atlantic halibut, *Hippoglossus hippoglossus* L. *Comparative Biochemistry and Physiology B* 152: 47-53.
16. **Fernandes J.M.O.**, Mommens M., Hagen Ø., Babiak I. & Solberg C. (2008). Selection of suitable reference genes for real-time PCR studies of Atlantic halibut. *Comparative Biochemistry and Physiology B* 150: 23-32.
15. Smith V.J., **Fernandes J.M.O.**, Kemp G.D. & Hauton C. (2008). Crustins: enigmatic WAP domain-containing antibacterial proteins from crustaceans. *Developmental and Comparative Immunology* 32: 758-772.
14. **Fernandes J.M.O.**, Macqueen D., Lee H.-T. & Johnston I.A. (2008). Genomic, evolutionary and expression analyses of *cee*, an ancient gene involved in normal growth and development. *Genomics* 91: 315-325.
13. **Fernandes J.M.O.**, MacKenzie M., Kinghorn J.R. & Johnston I.A. (2007). *FoxK1* splice variants show developmental stage-specific plasticity of expression with temperature in the tiger pufferfish. *Journal of Experimental Biology* 210: 3461-3472.
12. **Fernandes J.M.O.**, Kinghorn J.R. & Johnston I.A. (2007). Differential expression of multiple alternatively spliced transcripts of *MyoD*. *Gene* 391:178-185.
11. **Fernandes J.M.O.**, Kinghorn J.R. & Johnston I.A. (2007). Characterization of two paralogous muscleblind-like genes from the tiger pufferfish (*Takifugu rubripes*). *Comparative Biochemistry and Physiology B* 146: 180-186.
10. Bai J., Solberg C., **Fernandes J.M.O.** & Johnston I.A. (2007). Profiling of maternal and developmental-stage specific mRNA transcripts in Atlantic halibut *Hippoglossus hippoglossus*. *Gene* 386: 202-210.
9. **Fernandes J.M.O.**, MacKenzie M.G., Wright P., Steele S., Suzuki Y., Kinghorn J.R. & Johnston I.A. (2006). *Myogenin* in model puffer fish species: comparative genomic analysis and thermal plasticity of expression during early development. *Comparative Biochemistry and Physiology D* 1(1): 35-45.
8. **Fernandes J.M.O.**, MacKenzie M., Elgar G., Suzuki Y., Watabe S., Kinghorn J.R. & Johnston I.A. (2005). A genomic approach to reveal novel genes associated with myotube formation in the model teleost, *Takifugu rubripes*. *Physiological Genomics* 22: 327-338.
7. **Fernandes J.M.O.**, Kemp G.D. & Smith V.J. (2004). Two novel muramidases from skin mucosa of rainbow trout, *Oncorhynchus mykiss*. *Comparative Biochemistry and Physiology B* 138(1): 53-64.
6. **Fernandes J.M.O.**, Molle G., Kemp G.D. & Smith V.J. (2004). Isolation and characterisation of oncorhyncin II, a histone H1-derived antimicrobial peptide from skin secretions of rainbow trout, *Oncorhynchus mykiss*. *Developmental and Comparative Immunology* 28: 127-138.
5. **Fernandes J.M.O.** & Smith V.J. (2004). Partial purification of antibacterial proteinaceous factors from erythrocytes of *Oncorhynchus mykiss*. *Fish and Shellfish Immunology* 16: 1-9.
4. **Fernandes J.M.O.**, Saint N., Kemp G.D. & Smith V.J. (2003). Oncorhyncin III: a potent antimicrobial peptide derived from the non-histone chromosomal protein H6 of rainbow trout, *Oncorhynchus mykiss*. *Biochemical Journal* 373(Pt 2): 621-628.
3. **Fernandes J.M.O.**, Kemp G.D., Molle G. & Smith V.J. (2002). Antimicrobial properties of a histone H2A-like protein from skin secretions of rainbow trout, *Oncorhynchus mykiss*. *Biochemical Journal* 368(Pt 2): 611-620.
2. **Fernandes J.M.O.** & Smith V.J. (2002). A novel antimicrobial function for a ribosomal peptide from rainbow trout skin. *Biochemical Biophysical Research Communications* 296(1): 167-171.
1. Smith V.J., **Fernandes J.M.O.**, Jones S.J. Kemp, G.D. & Tatner M.F. (2000). Antibacterial proteins in rainbow trout, *Oncorhynchus mykiss*. *Fish and Shellfish Immunology* 10 (3): 243-260.

Other Scientific Publications

12. Mechaly A.S., **Fernandes J.M.O.**, Costas B. & Fatsini E. (2023). Editorial: Methodological Approaches for Fish Reproduction Management. *Frontiers in Physiology* 14: 1271809.
11. Daniels R.R., Taylor R.S., Konstantinidis I., Salisbury S., Morata D.P., **Fernandes J.M.O.**, Clark E., Macqueen D. & Robledo D. A versatile nuclei extraction protocol for single cell multiome ATAC and gene expression in non model species. *Protocols.io* doi : 10.17504/protocols.io.bp2169wnrlqe/v1.

10. Albano M., D'Iglio C., Spanò N., **Fernandes J.M.O.**, Savoca S. & Capillo G. Distribution of the Lampriformes in the Mediterranean Sea. *Scholarly Community Encyclopedia* <https://encyclopedia.pub/entry/32530>.
9. Pereira G.V., Fernandes A.M., Dias J., Poletto T.V., Conceição L., Hoerterer C., Petereit J., Buck B., Micallef G., Caldusch-Giner J.A., Naya-Català F., Piazzon M.C., Sitjà-Bobadilla A., Pérez-Sánchez J., Faccenda F., Povinelli M., Costas B., **Fernandes J.M.O.** & Johansen J. (2022). Eco-efficient aquafeeds using emergent ingredients. *Aquafeed: Advances in Processing & Formulation* 14(1) : 37-39.
8. **Fernandes J.M.O.** (2019). Hooking the bigger fish through epigenetics. *EU Research*.
7. Sarropoulou E., **Fernandes J.M.O.** & Liu Z. (2012). GIA 2011: Genomics in Aquaculture 2011 Symposium. *Marine Biotechnology* 14: 513–514.
6. **Fernandes J.M.O.** (2011). Preface: Genomics in Aquaculture (GIA) 2009 symposium. *Comparative Biochemistry and Physiology D* 6: 9-10.
5. **Fernandes J.M.O.** (2004). Evolution of trunk muscles to cope with four legs. *Journal of Experimental Biology* 207: v-vi.
4. **Fernandes J.M.O.** (2004). Can caffeine help tired murine muscles *Journal of Experimental Biology* 207: v.
3. **Fernandes J.M.O.** (2004). Mutation makes pigs porky. *Journal of Experimental Biology* 207: 1058.
2. **Fernandes J.M.O.** (2004). Desmin loss makes mice lazy. *Journal of Experimental Biology* 207: 8.
1. **Fernandes J.M.O.** (2003). Asynchronicity: a job for troponin C. *Journal of Experimental Biology* 206: 3307.

Scientific Communications

287. **Fernandes J.M.O.**, Colonna L., Konstantinidis I., Siriyappagounder P., Puvanendran V. & Hansen Ø.J. Impact of photoperiod manipulation on the fast muscle transcriptome and growth norms in Atlantic cod (*Gadus morhua*). Asian-Pacific Aquaculture 2024 Surabaya, Indonesia, 2-5 July 2024. (Poster)
286. **Fernandes J.M.O.**, Appel R.J.C., Fatsini E., Beirão J., Tsakogiannis A., Ramos-Judéz S., Oliveira C., Valaker R., Østerbø T., Marrero C. & Cabrita E. Investigating the expression of miRNAs in extracellular vesicles of Atlantic halibut as markers for sperm quality. Asian-Pacific Aquaculture 2024 Surabaya, Indonesia, 2-5 July 2024. (Poster)
285. Rudnik L.M., Goncalves K.C.B., Vilas-Boas L.A.; Giordano L.G.P., **Fernandes J.M.O.**, Appel R.J.C. & Paschoal A.R. Comparative analysis of transposable elements in the tilapia (*Oreochromis niloticus*) genome: A case study of *Streptococcus agalactiae* infection. 20th Brazilian Congress of Bioinformatics, Salvador, Brazil, 11-14 June 2024. (Poster)
284. Skjærven K.H., Saito T., **Fernandes J.M.O.** & Espe M. Broodstock management influences the metabolic status, gene expression and epigenetic gene regulation in progeny. 7th Genomics in Aquaculture Symposium, Thessaloniki, Greece, 22-24 May 2024.
283. Colonna L., Konstantinidis I., Daniels R.R., Robledo D. & **Fernandes J.M.O.** Single-cell transcriptome and epigenetic profiling of the pituitary gland provides insights into teleost puberty. 7th Genomics in Aquaculture Symposium, Thessaloniki, Greece, 22-24 May 2024. (Poster)
282. Burgerhout E., Lazado C.C., Milton C., Malik M.S., **Fernandes J.M.O.**, Lefevre S., Rebl A. & Macqueen D.J. Improving Atlantic salmon health and welfare by embryonic temperature programming. 7th Genomics in Aquaculture Symposium, Thessaloniki, Greece, 22-24 May 2024.
281. Appel R.J.C., Siqueira K.N., Lima S.C., Gonçalves K.B., Pretto-Giordano L.G., **Fernandes J.M.O.** & Vilas-Boas L.A. Serotype variation and genomic characterization of *Streptococcus agalactiae* strains isolated from Nile tilapia. 7th Genomics in Aquaculture Symposium, Thessaloniki, Greece, 22-24 May 2024. (Poster)
280. Lopes T., Costas B., Ramos-Pinto L., Reynolds P., Imsland A.K.D. & **Fernandes J.M.O.** Influence of chronic stress on lumpfish plasma free amino acids and immunity. XXI International Symposium on Fish Nutrition and Feeding, Puerto Vallarta, Mexico, 27-31 May 2024. (Poster)
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**)

277. Rbbani G., Tsakogiannis A., Fernández E.A., Beirão J., Cabrita E., Costas B. & **Fernandes J.M.O.** Extracellular vesicles are associated with antioxidant activity and contain non-coding RNAs that may be linked to sperm quality. Aquaculture Africa 2023, Lusaka, Zambia, 13-16 November 2023.
276. Tripathy P.S., Nedoluzhko A., Skjærven K.H., Piferrer F. & **Fernandes J.M.O.** Unravelling the role of mitochondrial DNA methylation in temperature-dependant growth of Nile tilapia (*Oreochromis niloticus*) through nanopore sequencing. Aquaculture Europe 2023, Viena, Austria, 18-21 September 2023. (Poster)
275. Pedro J., Henriques J., Bergvik M., Tzakris K., **Fernandes J.M.O.**, Costas B., Conceição L. & Togle N. Improving livefeed and microdiet formulation for Atlantic cod (*Gadus morhua*). Aquaculture Europe 2023, Viena, Austria, 18-21 September 2023.
274. Appel R.J.C., Konstantinidis I., Pretto-Giordano L.G., Villas Bôas L.A. & **Fernandes J.M.O.** Comparative transcriptome analysis reveals a serotype-specific immune response in Nile tilapia (*Oreochromis niloticus*) infected with *Streptococcus agalactiae*. Aquaculture Europe 2023, Viena, Austria, 18-21 September 2023.
273. Lopes T., Reynolds P., Costas B., Ramos-Pinto L., Imsland A. & **Fernandes J.M.O.** Acute and chronic stress response of lumpfish following air exposure: effects on cortisol, health, cataract and plasma free amino acids. 21st International Conference on Diseases of Fish and Shellfish, Aberdeen, UK, 11-14 September 2023.
272. Goncalves K.C.B., Appel R.J., Pretto-Giordano L.G., **Fernandes J.M.O.**, Souza R.F. & Vilas-Boas L.A. Identification of regulatory signals in the immune system of *Oreochromis niloticus* in response to *Streptococcus agalactiae* infection. X-Meeting 2023, Curitiba, Brazil, 13-16 June 2023. (Poster)
271. Siqueira K.N., Pretto-Giordano L.G., Gonçalves K.C.B., **Fernandes J.M.O.** & Vilas-Boas L.A. Comparison of non-coding RNA distribution in two *Streptococcus agalactiae* strains, serotypes Ib and III, isolated from Nile tilapia. X-Meeting 2023, Curitiba, Brazil, 13-16 June 2023. (Poster)
270. **Fernandes J.M.O.** & Rbbani G. Comprehensive analysis of circular RNA expression and their regulatory network in Nile tilapia muscle. World Aquaculture 2023, Darwin, Australia, 29 May - 1 June 2023.
269. 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*)
268. Shankregowda A.M., Sagonas K., Bal T.M.P., Häsler R., Shama L., Fernandes J.M.O. & J.A.M. Raeymaekers J.A.M. Contribution of epigenetic variation to local adaptation in two coexisting and phylogenetically related species. 10th International Conference on Stickleback Behaviour and Evolution, Hólar, Iceland, 23-29 July 2022.
267. Maud A., Kleppe L., Andersson E., Norberg B., Karlsen Ø., Whatmore P., **Fernandes J.M.O.**, Nedoluzhko A., Skjærven K.H., Skjæraasen J.E., Kjesbu O.S. Atlantic cod facing climate-driven warming: reproductive physiology under challenging environmental conditions. 14th International Congress on the Biology of Fish, Montpellier, France, 28 June - 1 July 2022.
266. Pinninti L.R., **Fernandes J.M.O.**, Kristensen T., Smolina I., Maslenikov K., Collard F. & Noble L.R. A phylogenomic exploration of lumpsuckers. Plant and Animal Genomics (PAG) Asia 2022, Online, 22-24 June 2022.
265. Skjærven K.H., Saito T., **Fernandes J.M.O.**, Mommens M., Adam A.C. & Espe M. Seasonal broodstock management influences the epigenetic gene regulation in Atlantic salmon progeny. 6th Genomics in Aquaculture, Granada, Spain, 4-6 May 2022.
264. Adam A.C., Saito T., Putman A.L.K., Espe M., **Fernandes J.M.O.**, Miska, E.A. & Skjærven K.H. Nutrient-sensitive epigenetic regulation in salmon muscle. 6th Genomics in Aquaculture, Granada, Spain, 4-6 May 2022.
263. Fernandes A.M., Pereira G.V., Conceição L.E.C., Dias J., Johansen J., Silva B., Naya-Català F., Piazzon M.C., Calduch-Giner J., Sitjà-Bobadilla A., Costas B., **Fernandes J.M.O.** & Pérez-Sánchez J. Novel feed formulations based on circular economy principles sustain good -performance, -oxidative and -immune status in gilthead seabream. 6th Genomics in Aquaculture, Granada, Spain, 4-6 May 2022. (Poster)
262. Pinninti L.R., Maslenikov K., Collard F., Smolina I., **Fernandes J.M.O.**, Kristensen T. & Noble L.R. Revised phylogeny of the suborder cottoidei (teleostei: perciformes) based on mitogenomes using a phylogenomics approach. 6th Genomics in Aquaculture, Granada, Spain, 4-6 May 2022. (Poster)
261. Shankregowda A.M., Nedoluzhko A., Brand A.-F., Rbbani G., Siriappagounder P., Bal T.P., **Fernandes J.M.O.** & Raeymaekers J.A.M. miRNA expression profile in sticklebacks, response to environmental changes. 6th Genomics in Aquaculture, Granada, Spain, 4-6 May 2022. (Poster)
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.

258. Jafari O., Robledo D., Nasrolahpourmoghadam M., Nedoluzhko A. & **Fernandes J.M.O.** Genome-wide association reveals sex-specific and domestication-related markers of growth in Nile tilapia. 6th Genomics in Aquaculture, Granada, Spain, 4-6 May 2022. (Poster)
257. Abdelhafiz Y., **Fernandes J.M.O.**, Larger S., Donati C., Pindo M. & Kiron V. Intergenerational transfer of persistent communities in female Nile tilapia. 6th Genomics in Aquaculture, Granada, Spain, 4-6 May 2022. (Poster)
256. Rbbani G., Nedoluzhko A., Siriyappagouder P., Sharko F., Galindo-Villegas J., Joshi R., Raeymaekers J.A.M. & **Fernandes J.M.O.** Circular RNAs as potential growth biomarkers in Nile tilapia. 6th Genomics in Aquaculture, Granada, Spain, 4-6 May 2022.
255. Sharko F., Rbbani G., Siriyappagouder P., Raeymaekers J.A.M., Galindo-Villegas J., Nedoluzhko A. & **Fernandes J.M.O.** CircPrime: a web-based primer design tool for circular RNAs. 6th Genomics in Aquaculture, Granada, Spain, 4-6 May 2022. (Poster)
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.
251. Conceição L.E.C., Pereira G.V., Fernandes A.M., Dias J., Hoerterer C., Petereit J., Buck B., Micallef G., Calduch-Giner J.A., Naya-Català F., Piazzon M.C., Sitjà-Bobadilla A., Pérez-Sánchez J., Faccenda F., Povinelli M., Newton R., Glencross B., Kreiß C., Costas B., **Fernandes J.M.O.** & Johansen J. Eco-efficient feeds for European aquaculture. Aquaculture Europe, Madeira, Portugal, 4-7 October 2021.
250. Adam A.C., Saito T., Whatmore P., Putman A.L.K., **Fernandes J.M.O.**, Vikeså V., Espe M. & Skjærven K.H. Epigenetic mechanisms of improved post-smolt growth in Atlantic salmon fed a moderate surplus package of methionine, folic acid, vitamin B6 and B12 throughout smoltification. Aquaculture Europe, Madeira, Portugal, 4-7 October 2021.
249. Rbbani G.M., Nedoluzhko A.V., Sharko F.S., Konstantinidis I. & **Fernandes J.M.O.** Differences in the circular RNA transcriptome between wild and captive-bred Nile tilapia. Aquaculture Europe, Madeira, Portugal, 4-7 October 2021.
248. Fernandes A.M., Conceição L.E.C., Calduch-Giner J.A., Pereira G.V., Micallef G., Siriyappagouder P., Glencross B.D., Naya-Català F., Piazzon M.C., Sitjà-Bobadilla A., Johansen J., Pérez-Sánchez J. & **Fernandes J.M.O.** How do novel feed formulations affect growth performance, oxidative stress and immune response of Atlantic salmon? Aquaculture Europe, Madeira, Portugal, 4-7 October 2021.
247. Skjærven K.H., Saito T., **Fernandes J.M.O.**, Whatmore P., Mommens M. & Espe M. Seasonal broodstock management alters the epigenome of the next generation of Atlantic salmon (*Salmo salar*). Aquaculture Europe, Madeira, Portugal, 4-7 October 2021.
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)
243. Rehman S., Gora A.H., Siriyappagouder P., Brugman S., **Fernandes J.M.O.**, Dias J. & Kiron V. Intestinal transcriptome of zebrafish fed soybean and yeast β -glucan. 6th Genomics in Aquaculture Symposium, Online, 5-7 May 2021.
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.
241. Fernandes A. M., Conceição L.E.C., Silva B., Pereira G.V., Costas B., Naya-Català F., Piazzon C., **Fernandes J.M.O.**, Sitjà-Bobadilla A. & Pérez-Sánchez J. Evaluation of immune-response biomarkers in gilthead seabream fed with novel feed formulations. 6th Genomics in Aquaculture Symposium, Online, 5-7 May 2021.

240. Abdelhafiz Y., **Fernandes J.M.O.**, Donati C. & Kiron V. Does selective breeding influence the intestinal bacterial composition of Nile tilapia? 6th Genomics in Aquaculture Symposium, Online, 5-7 May 2021.
239. Skjærven K.H., Saito T., **Fernandes J.M.O.**, Mommens M., Whatmore P., Adam A.C. & Espe M. Seasonal broodstock management influences the nutritional status, gene expression and epigenetic gene regulation in Atlantic salmon progeny. 6th Genomics in Aquaculture Symposium, Online, 5-7 May 2021.
238. Konstantinidis I., Sætrom P., Liedtke H., Pohlmann C., Tsoulia T. & **Fernandes J.M.O.** Differences in liver DNA hydroxymethylation reflect the growth phenotype. 6th Genomics in Aquaculture Symposium, Online, 5-7 May 2021.
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.
235. Park Y., Zhang Q., **Fernandes J.M.O.** & Kiron V. Phagocytic activity and marker gene expression of the adherent cells from intestine and head kidney of Atlantic salmon. 6th Genomics in Aquaculture Symposium, Online, 5-7 May 2021.
234. Rbbani G.M., Nedoluzhko A.V., Siriyappagouder 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.
233. Fernandes A.M., Conceição L.E.C., Silva B., Pereira G.V., Costas B., Naya-Català F., Piazzon C., **Fernandes J.M.O.**, Sitjà-Bobadilla A. & Pérez-Sánchez J. Evaluation of growth performance, oxidative stress, and immune response in gilthead seabream fed with novel feed formulations. Aquaculture Europe 2020, Online, 12-15 April 2021.
232. Rbbani G.M., Nedoluzhko A.V., Siriyappagouder 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., Siriyappagouder 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., Sætrom 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., Siriyappagouder 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. Siriappagounder 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. Siriappagounder 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.** & Cabrera 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 damselae* 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., Johnny 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., Johnny 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 Siriyappagouder 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., Caldusch-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., Tonning 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., Pereira 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. Siriyappagouder 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. Siryappagouder 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.
134. Micallef G, Fairley S, **Fernandes J.M.O.**, Tinsley J.W., Bickerdike R., Bowman A.S. & Martin S.A.M. Transcriptomic response to prebiotic dietary supplements in the skin of Atlantic salmon (*Salmo salar*). Genomics in Aquaculture 2013, Bodø, Norway, 4-6 September 2013.
133. Nagasawa K., Presslauer C., Yoshizaki G., Miwa M., **Fernandes J.M.O.** & Babiak I. Identification and migration of primordial germ cells in Atlantic salmon (*Salmo salar* L.) and Atlantic cod (*Gadus morhua* L.). LARVI 2013: 6th Fish & Shellfish Larviculture Symposium, Ghent, Belgium, 2-5 September 2013. (Poster)
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.
131. Nagasawa K., Giannetto A. & **Fernandes J.M.O.** Epigenetic regulation of muscle growth by photoperiod in Atlantic cod (*Gadus morhua*). Aquaculture Europe 2013, Trondheim, Norway, 9-12 August 2013.
130. Micallef G., **Fernandes J.M.O.**, Rajan B., Cash P., Tinsley J.W., Bickerdike R., Martin S.A.M. & Bowman A.S. Proteomic investigation on the effect of prebiotic dietary supplements on the skin mucus of Atlantic salmon (*Salmo salar*). Aquaculture Europe 2013, Trondheim, Norway, 9-12 August 2013. (Poster)
129. Norberg B., Babiak J., Haugen T., **Fernandes J.M.O.**, Morozova E., Harboe T., Erstad B. & Babiak I. All female production of Atlantic halibut (*Hippoglossus hippoglossus*) – from studies on sex differentiation to large scale commercial production. 17th International Congress of Comparative Endocrinology, Barcelona, Spain, 15-19 July 2013.
128. Lazado C.C., Kumaratunga H., Nagasawa K., Giannetto A., Babiak I. & **Fernandes J.M.O.** Is there a circadian rhythm in fast skeletal muscle of Atlantic cod? Myogenesis Gordon Research Conference, Lucca, Italy, 7-12 July 2013. (Poster)
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, *Gadua morhua*. Myogenesis Gordon Research Seminar, Lucca, Italy, 6-7 July 2013.
126. Brinchmann M.F., Rajan B., **Fernandes J.M.O.**, Caipang C.M.A., Rombout J.H.W.M. & Kiron V. Atlantic cod (*Gadus morhua*) skin mucus proteins- focus on lectins. First International Conference of Fish and Shellfish Immunology, Vigo, Spain, 25-28 June 2013.
125. **Fernandes J.M.O.**, Sundaram A.Y.M. , Kiron V. & Jørgensen J.B. Regulation of the innate immune response by miRNAs in zebrafish. First International Conference of Fish and Shellfish Immunology, Vigo, Spain, 25-28 June 2013. (Poster)
124. **Fernandes J.M.O.**, Ruangsri J., Kitani Y., Lokesh J. & Viswanath Kiron. A novel β -defensin in Atlantic cod. First International Conference of Fish and Shellfish Immunology, Vigo, Spain, 25-28 June 2013.
123. Kitani Y., **Fernandes J.M.O.** & Kiron V. L-amino acid oxidase - a self defense molecule of Atlantic cod. First International Conference of Fish and Shellfish Immunology, Vigo, Spain, 25-28 June 2013.
122. Campos C., Conceição L., Valente L.M.P., Engrola S., Dionisio G., Sousa V., Rocha E., Gavaia P. & **Fernandes J.M.O.** Egg incubation temperature affects muscle and skeleton phenotype in post-larvae of the flatfish, *Solea senegalensis*. "Epigenetics and Periconception Environment" COST action, Antalya, Turkey, 24-25 April 2013.
121. Babiak J., Norberg B., Haugen T., Morozova E., **Fernandes J.M.O.** & Babiak I. Sex reversal in atlantic halibut (*Hippoglossus hippoglossus* L.): expression profiles of key genes involved in sex differentiation. Domestication in Finfish Aquaculture, Olsztyn, Poland, 23-25 October 2012. (Poster)
120. Lazado C., Kumaratunga H., Nagasawa K. & **Fernandes J.M.O.** Does the Atlantic cod fast muscle have a functional circadian system? International Congress of Chronobiology, Delhi, India, 3-7 October 2012. (Poster)
119. Lazado C., Nagasawa K. & **Fernandes J.M.O.** Unravelling the circadian cycling of the Atlantic cod (*Gadus morhua*) fast muscle transcriptome by next-generation sequencing. International Congress of Chronobiology, Delhi, India, 3-7 October 2012. (*Invited speaker*)
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)
116. Lanes C.F. C., **Fernandes J.M.O.**, Kiron V. & Babiak I. Gene expression profiling during Atlantic cod (*Gadus morhua*) development: comparison between farmed and wild broodstock. Aqua 2012, Prague, Czech Republic, 1-5 September 2012.
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)
114. Campos C., **Fernandes J.M.O.**, Conceição L., Engrola S., Sousa V., Rocha E., Valente L.M.P. Thermally-induced phenotypic plasticity of myogenesis in a flatfish, *Solea senegalensis*. XV International Symposium on Fish Nutrition and Feeding, Molde, Norway, 4-7 June 2012. (Poster)
113. Campos C., Castanheira M.F., Engrola S., Valente L.M.P., **Fernandes J.M.O.** & Conceição L. Rearing temperature affects Senegalese sole (*Solea senegalensis*) larvae protein metabolism and growth trajectories. XV International Symposium on Fish Nutrition and Feeding, Molde, Norway, 4-7 June 2012. (Poster)
112. Batista S., Cabral E.M., Valente L.M.P., **Fernandes J.M.O.**, Castro-Cunha M. & Ozório R.O.A. Innate immune status of Senegalese sole (*Solea senegalensis*, Kaup 1858) fed increasing levels of plant protein sources. XV International Symposium on Fish Nutrition and Feeding, Molde, Norway, 4-7 June 2012. (Poster)
111. Sundaram A.Y.M., Kiron V. & Fernandes J.M.O. Multiple toll-like receptor 22 paralogues in Atlantic cod. 13th Fish Immunology Workshop, University of Wageningen, Wageningen, Netherlands, 22-26 April 2012. (Poster)
110. Kiron V., **Fernandes J.M.O.**, Brinchmann M.F., Caipang C.M.A., Rombout J.H.W.M. & Schrøder M. Mucosal defence mechanisms: Understanding molecules that protect Atlantic cod. Havbruk 2012, Stavanger, Norway, 16-18 April 2012.
109. **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 2012, Stavanger, Norway, 16-18 April 2012.
108. Lazado C.C., Nagasawa K. & **Fernandes J.M.O.** Gonadal microRNAome of Atlantic cod. Havbruk 2012, Stavanger, Norway, 16-18 April 2012. (Poster)
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)
105. Brinchmann M.F., Rajan B., **Fernandes J.M.O.**, Caipang C.M.A., Rombout J.H.W.M., Kiron V. Galectin-1, a potential immunocompetent protein from Atlantic cod. Havbruk 2012, Stavanger, Norway, 16-18 April 2012.
104. Dhanasiri A.K.S., **Fernandes J.M.O.** & Kiron V. A bioremediation approach in zebrafish transport units to alleviate ammonia toxicity and stress. Environmental, Microbiology & Biotechnology conference 2012, 10-12 April 2012, Bologna, Italy. (Poster)
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*)
102. Kollias S., **Fernandes J.M.O.**, Papandroulakis N. & Pavlidis M. Chronic unpredictable stress and HPI axis gene expression in European sea bass (*Dicentrarchus labrax*). Aquaculture Europe 2011, Rhodes, Greece, 18-21 October 2011. (Poster)
101. Campos C., Sousa V., Rocha L., Valente L.M.P. & **Fernandes J.M.O.** Thermal plasticity of growth and gene expression during Senegalese sole (*Solea senegalensis*) ontogeny. Aquaculture Europe 2011, Rhodes, Greece, 18-21 October 2011. (*Invited speaker*)
100. Ruangsri J., Jeppinamoggeru 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.
97. Jeppinamogeru L., **Fernandes J.M.O.**, Korsnes K., Brinchmann M.F. & Kiron V. Expression of cytokine genes in the intestine of Atlantic cod in response to immunomodulators and pathogenic bacteria. Genomics in Aquaculture 2011, Crete, Greece, 14-17 September 2011. (Poster)
96. Campos C., Valente L.M.P., Conceição L. & **Fernandes J.M.O.** Temperature-dependent expression of heat-shock proteins during Senegalese sole development. Genomics in Aquaculture 2011, Crete, Greece, 14-17 September 2011. (Poster)
95. Rajan B., Fernandes J.M.O., Caipang C.M.A., Kiron V., Rombout J.H.W.M., Brinchmann M.F. Skin mucosal proteome of Atlantic cod (*Gadus morhua*); focusing on galectin-1. Genomics in Aquaculture 2011, Crete, Greece, 14-17 September 2011. (Poster)
94. Lazado C.C., Nagasawa K. & **Fernandes J.M.O.** Next-generation sequencing of testicular miRNAs in Atlantic cod. Genomics in Aquaculture 2011, Crete, Greece, 14-17 September 2011.
93. Lanes C.F.C., Bizuayehu T.T., **Fernandes J.M.O.**, Kiron V. & Babiak I. Maternal transcriptome of Atlantic cod (*Gadus morhua*): comparison between farmed and wild broodstock. Genomics in Aquaculture 2011, Crete, Greece, 14-17 September 2011. (Poster)
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)
91. Micallef G., Martin S.A.M., Bickerdike R., **Fernandes J.M.O.** & Bowman A. The skin transcriptome of Atlantic salmon (*Salmo salar* L.) generated by 454-sequencing. Genomics in Aquaculture 2011, Crete, Greece, 14-17 September 2011.
90. Giannetto A., Fasulo S., Mauceri A., Maisano M., Domenico, E. & **Fernandes J.M.O.** Influence of continuous light treatment on expression of health and stress biomarkers in Atlantic cod. Genomics in Aquaculture 2011, Crete, Greece, 14-17 September 2011. (Poster)
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)
81. **Fernandes J.M.O.**, Giannetto A. & Nagasawa K. Differential miRNA expression during gonadal maturation in Atlantic cod. World Aquaculture 2011, Natal, Brazil, 6-10 June 2011.
80. **Fernandes J.M.O.**, Campos C., Valente L.M.P. & Conceição L. Thermal plasticity of miRNA expression during embryonic development of Senegalese sole. World Aquaculture 2011, Natal, Brazil, 6-10 June 2011.

79. **Fernandes J.M.O.**, Ruangsri J., Caipang C.M.A. & Kiron V. Discovery of multiple piscidin paralogues in Atlantic cod, *Gadus morhua* L. World Aquaculture 2011, Natal, Brazil, 6-10 June 2011.
78. Lanes C.F.C., Bolla S., **Fernandes J.M.O.**, Nicolaisen O., Kiron V. & Babiak I. Nucleotide-enriched live feed for Atlantic cod *Gadus morhua* larvae: evaluation of genes related to muscle growth, nucleotide metabolism and stress. World Aquaculture 2011, Natal, Brazil, 6-10 June 2011. (Poster)
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)
75. Bizuayehu T.T., Babiak J., Lanes C.F.C., **Fernandes J.M.O.**, Johansen S.D. & Babiak I. Sexual differences in miRNA expression in Atlantic halibut brain and gonads. World Aquaculture 2011, Natal, Brazil, 6-10 June 2011. (Poster)
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.
71. Micallef G., Bowman A., Bickerdike R., **Fernandes J.M.O.** & Martin S. Transcriptomic response to yeast-derived feed supplements in the skin of Atlantic salmon (*Salmo salar* L.). 12th Fish Immunology Workshop, University of Wageningen, Wageningen, Netherlands, 17-21 April 2011. (Poster)
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.
69. Dhanasiri A.K.S., Kiron V., **Fernandes J.M.O.**, Bergh Ø. & Powell M.D. Novel application of nitrifying bacterial consortia to ease ammonia toxicity in ornamental fish transport units: trials with zebrafish. Annual Conference for General and Applied Microbiology 2011 (VAAM 2011), Karlsruhe, Germany, 3-6 April 2011.
68. Bizuayehu T.T., Lanes C.F.C., Furmanek T., Karlsen B.O., Babiak J., **Fernandes J.M.O.**, Johansen S.D., Babiak I. Small RNAs in Atlantic halibut (*Hippoglossus hippoglossus* L.). 5th International Conference on Marine Bioprospecting, Tromsø, Norway, 23-25 February 2011. (Poster)
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)
66. Maren Mommens M., Bolla S.L., **Fernandes J.M.O.**, Tollefsen K.E., Johnston I.A. & Babiak I. Identification of molecular markers for egg quality in Atlantic halibut (*Hippoglossus hippoglossus* L.). 5th International Conference on Marine Bioprospecting, Tromsø, Norway, 23-25 February 2011. (Poster)
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)
59. Lanes C., Bolla S., Kiron V., Nicolaisen O., **Fernandes J.M.O.** & Babiak I. Growth and stress tolerance of Atlantic cod (*Gadus morhua*) larvae reared on rotifers and artemia enriched with nucleotide products. Aquaculture Europe 2010, Porto, Portugal, 5-8 October 2010.
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.
49. Sundaram A. & **Fernandes J.M.O.** Selection pressure in fish-specific Toll-like receptors. 9th Congress of International Fish Biology, Barcelona, Spain, 5-7 July 2010. (Poster)
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.
40. Ruangsri J., **Fernandes J.M.O.**, Caipang C.M.A., Brinchmann M. & Viswanath K. Piscidin and the mucosal innate immune system of Atlantic cod (*Gadus morhua*). Norwegian Research Council Aquaculture Meeting (Havbruk 2010), Trondheim, Norway, 19-21 April 2010. (Poster)
39. **Fernandes J.M.O.**, Nagasawa K. & Gianetto A. The DNMT and MLL gene families from Atlantic cod (*Gadus morhua*) and their regulation by photoperiod. Norwegian Research Council Aquaculture Meeting (Havbruk 2010), Trondheim, Norway, 19-21 April 2010. (Poster)
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.
36. Ruangsri J., Caipang C.M., Viswanath K. & **Fernandes J.M.O.** A piscidin orthologue from basal Acanthomorph fish: potential role in innate immunity of Atlantic cod (*Gadus morhua*). Asian Pacific Aquaculture 2009, Kuala Lumpur, Malaysia, 4-6 November 2009.
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

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|----------------|---|
| 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 Miscel·lània 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)
2013 - present	International Society of Fish and Shellfish Immunology
2021- present	European Aquaculture Society
2007 - 2011	The American Physiological Society
2007 - present	International Society for Developmental & Comparative Immunology
2004 - present	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>)
2003 - present	European Society for Muscle Research
2000 - 2001	The Fisheries Society for the British Isles
1998 - 1999	Society for General Microbiology

Selected Research Stays

2016	Dr Samy El-Zaeem's lab, University of Alexandria, Egypt.
2012 - 2013	Dr Sofia Engrola's lab, Center of Marine Sciences, Portugal.
2009, 2011	Dr Elena Sarropoulou's lab, Hellenic Centre for Marine Research, Greece.
2006	Prof. Shugo Watabe's lab, The University of Tokyo, Japan.
2005	Prof. Ant3nio Gutierrez's lab, University of Barcelona, Spain.
1999	Prof. Chris Secombes's lab, University of Aberdeen, UK.

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**
- 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)
 - Introduction to Perl & BioPerl, 23-24 June 2003 (Cambridge, 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.