

Andrea Miccoli, Ph.D.

Fish physiology-oriented biologist and ecologist with interest, research and teaching experience in animal biotechnologies.

Contact information

Work address Istituto per le Risorse Biologiche e le Biotecnologie Marine
Consiglio Nazionale delle Ricerche
Largo Fiera della Pesca 2
60125 Ancona (IT)

Email address andrea.miccoli@cnr.it

LinkedIn <http://it.linkedin.com/in/andreamiccoli>
ResearchGate http://www.researchgate.net/profile/Andrea_Miccoli
ORCID <https://orcid.org/0000-0002-4545-7229>

Nationality Italian

Education

Nov 2013 – Nov 2016

Ph.D. in Life and Environmental Sciences, curriculum of Marine Biology and Ecology
Università Politecnica delle Marche / Institute of Marine Sciences, National Research Council of Ancona
Thesis: "Characterization of reproductive physiology, abundance and spatial distribution of the European anchovy (*Engraulis encrasicolus*) in the Western Adriatic Sea"
"Supervisors: Prof. Carnevali (IT), Dr. Leonori (IT)
Co-supervisors: Prof. Elizur (AU), Prof. Estonba (ES)
Outstanding *cum laude*

Oct 2010 – Feb 2013 (A.Y. 2011-2012)

M.Sc. in Marine Biology
Università Politecnica delle Marche
Thesis: "Effect of *Lactobacillus rhamnosus* on the expression of genes involved in the autophagic process through the development of *Danio rerio*"
Supervisor: Prof. Carnevali
110/110 *cum laude*

Oct 2007 – Oct 2010

B.Sc. in Ecology
Università degli Studi di Roma "Tor Vergata"
Thesis: "Demographic structure and population dynamics of autochthon and allochthon fish species belonging to the Natural Reserve "Tevere-Farfa" and to the Farfa creek"
Tutor: Dr. Tancioni
110/110 *cum laude*

Work experience

Mar 2023 –

Researcher, permanent position

Italian National Research Council, Institute for Marine Biological Resources and Biotechnology, Ancona (Italy)

Mar 2023 – Jun 2023

Lecturer on contract in “Biotechnologies of animal molecules”

University of Tuscia, Viterbo (Italy)

Jan 2019 – Feb 2023

Fixed-term researcher

University of Tuscia, Viterbo (Italy)

- Research activity in animal reproductive physiology, immunity and stress.
- Lecturer in “Animal Biotechnologies” to 2nd year MSc students in “Industrial Biotechnologies”.
- Lecturer of the modular class “Intellectual property, academic technology transfer and soft skills” to 1st year PhD students.
- Project proposal and coordination.
- Safety manager of the Animal Biotechnologies lab.
- Member of graduation committees.

Aug 2021 – Aug 2022

EFSA (European Food Safety Authority) EU-FORA fellow

Bundesinstitut für Risikobewertung (BfR)

- Project “The use of NAM and omics data in risk assessment” at the departments “Effect-based Analytics and Toxicogenomics” and “Testing and Assessment Strategies Pesticides”.
- Project Merck CellF – «Analysis of key functional events in cell culture models»
- Omics data analysis
- Supervisors: Prof. Dr. Albert Braeuning and Dr. Philip Marx-Stölting”

Oct 2019 – present

Lecturer

University of Rome “La Sapienza” (Italy)

- Lecturer of the Zoology module within the “Food biodiversity and Ecology” class of the BSc degree in “Gastronomic and wellness sciences, cultures and politics”.
- Contact professor of the degree course.

Jan – Dec 2018

Research associate II

Bermuda Institute of Ocean Sciences (BIOS), St. George’s (Bermuda)

- Reporting to Dr. Maas and Dr. Blanco-Bercial;
- Project BIOS-SCOPE (UCSD, Oregon State University, University of Exeter, Woods Hole Oceanographic Inst., BIOS) – sea-time (R/V Atlantic Explorer – BIOS, 14-day long cruises), sample/data collection, data analyses;
- Project EXPORTS (NASA) – sea-time (R/V Revelle – Scripps, 40-day long cruise), sample collection, zooplankton ID, set-up, performance and break-down of whole-animal respirometry experiment, set-up and break-down of individual and community fecal pellet production experiment, splitting and size-sorting of MOCNESS-sampled zooplankton, data analyses;
- Project “Fishon - Fish Community Surveys through environmental DNA in Bermuda” – sample collection, DNA extraction and amplification, data presentation;
- Molecular, morphological and phylogenetic analyses on ethanol/formalin-preserved samples;
- Logistics.

May – Jul 2017

Aquaculture research technician

Hellenic Center for Marine Research (HCMR), Heraklion, Salamis (Greece)

- Reported to Dr. Mylonas (Research director at HCMR and DIVERSIFY coordinator);
- European project DIVERSIFY – set-up of tanks and water flow rate, set up of oxygen and air lines, measurement and adjustment of dissolved oxygen levels, cleaning of sea-water pumps, management of greater amberjack (*Seriola dumerili*) broodstock, handling, feeding, bleeding, parasite checking (*Zeuxapta seriolae*), gonadal biopsies and implanting GnRHa for spawning induction, egg collection, evaluation of fecundity and fertilization success, assessment of residual sperm motility, monitoring of the embryonic and larval development. Specimens were maintained at Argosaronikos fish farm facility;
- Seabream parasite check (*Sparicotyle chrysophrii*);
- Limiting outbreak of *Flavobacterium columnare* in 2-8 gr sea bass fingerling tanks.

Nov 2013 – Nov 2016

Research assistant

National Research Council (CNR) - ISMAR Ancona

- Reported to Dr. Leonori (PI) and Dr. De Felice (sea-time chief scientist);
- European project MEDIAS – sea-time (R/V Dallaporta – National Research Council, 5-week long cruises on average), environmental data and sample collection, grading and sorting of trawl catches, data entry, report writing.

May – Jun 2014

Visiting PhD Student

EHU/UPV, University of the Basque Country, Bilbao (Spain)

- Reported to Prof. Estonba;
- Transcriptome data analyses with bioinformatics tools in LINUX environment (assisted by Dr. Langa).

April 2011

Research Assistant

National Research Council (CNR)

- Reported to Dr. Bortoluzzi (R/V Urania's chief scientist);
- Project Env-Adri 2011 – sea time (R/V Urania – National Research Council), environmental data collection from CTD, sample collection (water from Niskin bottles and sediment from box corer), measurement of water clarity by Secchi disc.

Traineeships

Apr - Sep 2013

Trainee in Biotechnologies in Aquaculture

GeneCology Research Centre, University of the Sunshine Coast, Sippy Downs (QLD), Australia

- Reported to Dr. Ventura (Senior lecturer) and Prof. Elizur (GeneCology Director)
- Project "Understanding masculinity, the crustacean way" – set-up, performance and break-down of *Pichia pastoris* expression system for aquaculture-related recombinant proteins, scientific dissemination (oral presentation: "*Pichia pastoris*: a yeast expression system");
- Molecular biology and microbiology techniques, media preparation;
- Husbandry of *Cherax quadricarinatus* for Project "Assessment of Eye Regeneration in Crustaceans".

Symposia, courses, workshops, training schools and e-learning

- 2022: "Cross-omics discovery of adverse outcome pathways linked to exposure to endocrine disrupting compounds", EURION cluster (virtuale), 05/04/2022
- 2021: "Practical applications of new tools in toxicology", ASSCT (virtuale), 12-14/10/2021
- "Application of a science-driven approach to solve the needs of regulatory and industry communities in the implementation of NAM-supported read-across in regulatory dossiers", EU-ToxRisk (virtuale), 27-28/10/2021
- "Next Generation Approaches for identifying Endocrine Disruptors" (virtuale), 28/10/2021
- "Risk assessment and risk management of Genetically Modified Organisms", BfR, Berlino (Germania), 09/11/2021
- "The final outcomes and legacy of EU-ToxRisk, including case studies and a comprehensive collection of learnings and gaps in the application of NAM-enhanced read-across", EU-ToxRisk (virtuale), 03-04/11/2021
- 2019: XX Congresso Società Italiana Immunobiologia Comparata e dello Sviluppo, Rende, 13-15/02/2019.
- Aquaculture Europe, Berlino (Germania), 7-10/10/2019.
- 2018: NASA Exports Ocean Sciences Meeting, Portland (Oregon)
- BIOS-SCOPE Workshop, Portland (Oregon)
- 2017: "The Adriatic recovery project press conference at the Italian parliament", Roma, 17/04/2017.
- 2016: "Institutional meeting Italy-Montenegro on cooperation in designing and implementing conservation measures and regionalization", Torre del Greco, 18-19/04/2016.
- Aquaculture America, Las Vegas (U.S.A.), 22-26/02/2016.
- 2015: 5th International Workshop on the Biology of Fish Gametes, Ancona, 7-11/09/2015.
- Marie Curie ITN Project IMPRESS "IMPRESS Genomics and Bioinformatics Workshop", Delft (Olanda), 27-30/10/2015.
- 2014: 10th International Symposium on the Reproductive Physiology of Fish "Expanding the knowledge base of reproductive success: from genes to the environment", Olhao (Portogallo), 25-30/05/2014
- AQUAGAMETE COST Action training course "Molecular basis of fish gamete quality", INRA Rennes, Laboratorio Fish Physiology and Genomics (Francia), 23-27/06/2014
- 2013: 17th International Congress of Comparative Endocrinology, Barcellona (Spagna), 15-19/07/2013
- 4th International Workshop on the Biology of Fish Gametes, Faro (Portogallo), 17-20/09/2013

Skills**Lab activity**

- Biological/data sampling on land and at sea (underwater and aboard research vessels);
 - Experimental designing;
 - Fisheries- and zooplankton-oriented research cruise activities (Collection of depth, water temperature; grading and sorting of trawl catches -species ID, morphometry, frequency distribution of size classes; derivation of weight estimates from sub-sampling; biological sampling (i.e. scales, ear bones, tissues, whole-animal); size fractioning and splitting of MOCNESS cod end;
 - Culture of adherent and suspension primary and continuous cell lines (e.g. HepaRG, Caco2, DLEC, Saf1);
 - Cellular biology (Indirect immune-fluorescence; Immuno-precipitation; Immuno-purification; Flow cytometry; Enzyme assay);
 - Molecular biology and phylogenetic techniques (RNA extraction; cDNA synthesis; PCR; Real-Time q-PCR with Sybr Green and Probe methods; Relative quantification of mRNA expression; RACE-PCR; Gel electrophoresis; DNA purification; Bioanalyzer; Nanodrop; SDS-PAGE;
- Western Blot; Whole Mount *in situ* hybridization; *Pichia pastoris* yeast expression system, MEGA and MrBayes softwares);
 - RNA-seq analysis in Linux command-line environment (raw reads retrieval, quality control check, trimming/clipping, assembly, assessment of genome/transcriptome assembly, mapping-based indexing and transcript quantification from RNA-seq data) and R studio (differential gene expression analysis, over-representation analysis, gene set enrichment analyses);
 - Web-based comparative genomics and bioinformatics tools;
 - ZooScan and data processing through the ImageJ-based ZooProcess/PID pipeline + EcoTaxa database;
 - Whole animal respirometry (O₂/CO₂ concentration + analysis of metabolic rates);
 - Histology + staining procedures;
 - Light + stereo + fluorescence microscopy;
 - CASA system;
 - Univariate and multivariate statistics;
 - Laboratory manager (logistics

Project, office and communication/dissemination

- Project proposal (individually and collaboratively) and coordination;
- Data analyses and interpretation;
- Scientific writing (papers, reviews, reports);
- Copy editing;
- Minute-taking of conference calls and meetings;
- Scientific dissemination and outreach to public society;
- Social media management;

Research grants

- **Fondo Europeo per gli Affari Marittimi e la Pesca (FEAMP)**, measure 1.40 – “NANOPISCES – Valutazione dell’impatto delle nanoplastiche su specie ittiche di interesse commerciale. Funded for 8 months with 31.778,41 €. I coordinate all tasks (financial and scientific) of the projects and supervise the work of all personnel involved.
- **PRIN 2022 proposal** “Natural Organic Matter: features and complex formation with contaminants (NOMSTER&Co)”. In collaboration with University of Calabria (Prof. Brunelli) and Stazione Zoologica Anton Dohrn “Dr. Maria Sirakov”. Submitted
- **PRIN 2022 proposal** “Multidisciplinary approaches for assessing the effects of sustainable insect bioactive compounds on rainbow trout health status and welfare”. Submitted
- **H2020-LC-SC3-2018-2019-2020 proposal** “ALPHEUS - Analysis & development of Low-head Pumped Hydro for Energy Use & Storage”, in collaboration with a 13-partner European consortium. Funded for 48 months with 4.996.825,00 € (320.375 € for University of Tuscia). I coordinate University of Tuscia’s tasks (evaluation of environmental aspects related to tested technologies, fish friendliness, fish physiology) and am responsible for reporting periods. J.D.Bricker@tudelft.nl (University of Delft) for additional info.
- **Fondo Europeo per gli Affari Marittimi e la Pesca (FEAMP)**, measure 1.40 – “PISCES – PlastiChe, SpeCiE aliene e fiSiologia: Indagine preliminare degli impatti sull’ittiofauna interessata dalle attività di pesca nell’area di Civitavecchia”. Funded for 9 months with 81.155 €. I coordinate all tasks (financial and scientific) of the projects and supervise the work of three research fellows.
- **“Studio della riproduzione del Tonno Rosso e Pesce Spada per lo sviluppo, il monitoraggio, la valutazione e la gestione dei sistemi per l’assegnazione delle possibilità di pesca”**, co-authored by Marche Polytechnic University (Italy), Oceanis S.r.l. (Italy) and Cofrepeche (France). Funded by the Italian Ministry of Agricultural, Food and Forestry Policies. o.carnevali@univpm.it for additional info.

Teaching activity

Feb 2019 – June 2020

Animal Biotechnologies, University of Tuscia

6 CFU (48-hour lecture)

3rd year BSc students in Biotechnologies

Feb 2021 – June 2023

Biotechnologies of animal molecules, University of Tuscia

6 CFU (48-hour lecture + practical experiences)

2nd year MSc students in Industrial Biotechnologies

Nov 2020 – Feb 2023

Food biodiversity and Ecology: Zoology, University of Rome "La Sapienza"

3 CFU (24-hour lecture)

2nd year undergraduate students in Gastronomic and wellness sciences, cultures and politics

Nov 2020 – Feb 2023

Soft skills, University of Tuscia

1st year PhD students

Supervising activity

2022

- BSc dissertations: Mrs. Francesca Prati, Mrs. Ester Conti, Mr. Alberto Abbruzzetti

2021

- BSc dissertations: Mrs. Martina Restuccia, Mrs. Nicole Vignaroli, Mr. Giuliano Crisanti De Ascentis

2020

- BSc dissertations: Mr. Lorenzo Barocca, Mr. Luca Buccini, Mr. Danilo Marchese, Mrs. Martina Persieri, Mrs. Alice Gravili, Mr. Marco Sabbatino

2019

- BSs dissertations: Mr. Matteo Manni
- MSc thesis projects: Mr. Federico Conti, Mr. Lorenzo Buccolini

2017

- MSc thesis project: Ms. Alessandra Raffa

2016

- MSc thesis project: Mr. Mikołaj Kocikowski
- BSc in-lab internship: Ms. Elena Strappato

Reviewing and editorial activity

- Guest editor Special Issue "Impacts of Anthropogenic Stressors to Fish Physiology", Journal "Fishes" (MDPI)
- Animals
- Environmental Pollution
- European Zoological Journal
- Fish and Shellfish Immunology (Regular and Special Issues)
- FONDECYT Regular 2018 grant competition - Chilean National Science and Technology Commission (CONICYT).
- General and Comparative Endocrinology (Regular and Special Issues)
- Journal of Marine Science and Engineering
- Marine Pollution Bulletin
- Microorganisms
- Regional Studies in Marine Science

Conferences/Meetings

- EFSA Risk Assessment Research Assembly, Berlin (Germany), 2022;
- XIV Convegno Nazionale INBB, Rome (Italy), 2022;
- Aquaculture Europe, Berlin (Germany), 2019;
- NASA Exports Ocean Sciences Meeting, Portland (Oregon), 2018;
- BIOS-SCOPE Workshop, Portland (Oregon), 2018 – poster contribution;
- Meeting "The Adriatic recovery project press conference at the Italian parliament", Rome (Italy), 2017;
- Meeting "Institutional meeting Italy-Montenegro on cooperation in designing and implementing conservation measures and regionalization", Torre del Greco (Italy), 2016 – oral presentation;
- Aquaculture America, Las Vegas (USA), 2016;
- 5th International Workshop on the Biology of Fish Gametes, Ancona (Italy), 2015 – oral presentation and poster contribution;
- 10th International Symposium on the Reproductive Physiology of Fish, Olhao (Portugal), 2014 – oral presentation;
- 17th International Congress of Comparative Endocrinology, Barcelona (Spain), 2013 – poster contribution;
- 4th International Workshop on the Biology of Fish Gametes, Faro (Portugal), 2013 – oral presentation.

Publications (28)

- **Miccoli A**, De Luca A, Bricker J, Vriese FT, Moll R, Scapigliati G. "Stress response to entrainment flow speed near pump inlet fish screens in two model teleost species, *Anguilla anguilla* and *Oncorhynchus mykiss*". *Fishes* 8(139). doi: 10.3390/fishes8030139
- Schmeisser S⁺, **Miccoli A**⁺, ..., Tralau T. "New Approach Methodologies in human regulatory toxicology – not if, but how and when!". Under submission to *Nature Biotechnology*, 2022
- **Miccoli A**, Marx-Stoelting P, Braeuning A. "The use of NAMs and omics data in risk assessment". *EFSA Journal*, 2022. doi: 10.2903/j.efsa.2022.e200908
- Bidoli C⁺, **Miccoli A**⁺, Buonocore F, Fausto AM, Gerdol M, Picchietti S, Scapigliati G. Transcriptome Analysis Reveals Early Hemocyte Responses upon *In Vivo* Stimulation with LPS in the Stick Insect *Bacillus rossius* (Rossi, 1788). *Insects*, 2022. doi: 10.3390/insects13070645
- Scapigliati G, **Miccoli A**, Buonocore F, Fausto AM, Picchietti S. "Lymphocytes of Teleosts". In: "Principles of Fish Immunology. From Cells and Molecules to Host Protection", eds. Buchmann K, Secombes CJ, 2022, Springer. doi: 10.1007/978-3-030-85420-1_5
- Ruiz RA, Vilder LH De, Prasasti EB, Aouad M, De Luca A, Geisseler B, Terheiden K, Scanu S, **Miccoli A**, Roeber V, Marence M, Moll R, Bricker JD, Goseberg N. Low-head pumped hydro storage: A review on civil structure designs , legal and environmental aspects to make its realization feasible in seawater. *Renewable and Sustainable Energy Reviews*, 2022. doi:10.1016/j.rser.2022.112281

- **Miccoli A**, Mancini E, Saraceni PR, Della Ventura G, Scapigliati G, Picchietti S. "First evidence of *in vitro* cytotoxic effects of marine microlitter on *Merluccius merluccius* and *Mullus barbatus*, two Mediterranean commercial fish species". *Science of the Total Environment*, 2021. doi: 10.1016/j.scitotenv.2021.152618
- Tarrant AM, McNamara-Bordewick N, Blanco-Bercial L, **Miccoli A**, Maas AE. "Diel metabolic patterns in a migratory oceanic copepod". *Journal of Experimental Marine Biology and Ecology*, 2021. doi: 10.1016/j.jembe.2021.151643
- **Miccoli A**, Buonocore F, Picchietti S, Scapigliati G. "The sea bass *Dicentrarchus labrax* as a marine model species in immunology: insights from basic and applied research". *Aquaculture and Fisheries* 2021. doi: 10.1016/j.aaf.2021.09.003
- Mancini E⁺, **Miccoli A**^{**}, Piazzolla D, Saraceni PR, Lezzi M, Tiralongo F, Bonifazi A, Picchietti S, Marcelli M. "Macrozoobenthic fauna associated with benthic marine litter (Northern Tyrrhenian Sea, Italy) and first report of two bryozoan species in Italian waters". *Regional Studies in Marine Sciences* 2021. doi: 10.1016/j.rsma.2021.101912
- **Miccoli A**, Mancini E, Boschi M, Provenza F, Tiralongo F, Renzi M, Terlizzi A, Bonamano S, Marcelli M. "Trophic, Chemo-Ecological and Sex-Specific Insights on the Relation Between *Diplodus sargus* (Linnaeus, 1758) and the Invasive *Caulerpa cylindracea* (Sonder, 1845)". *Frontiers in Marine Sciences* 2021. doi: 10.3389/fmars.2021.6807876
- Maas AE, **Miccoli A**, Stamieszkin K, Carlson C, Steinberg D. "Allometry and the Calculation of Zooplankton Metabolism in the subarctic Northeast Pacific Ocean". *Journal of Plankton Research* 2021, 1-15. doi: 10.1093/plankt/fbab026
- **Miccoli A**, Guerra L, Pianese V, Saraceni PR, Buonocore F, Taddei AR, Couto A, De Wolf T, Fausto AM, Scapigliati G and Picchietti S. "Molecular, Cellular and Functional Analysis of TRy Chain Along the European Sea Bass *Dicentrarchus labrax* Development". *International Journal of Molecular Sciences* 221, 22, 3376. doi: 10.3390/ijms22073376
- Ansaloni F, Gerdol M, Torboli V, Fornaini NR, Greco S, Giulianini PG, Coscia MR, **Miccoli A**, Santovito G, Buonocore F, Scapigliati G, Pallavicini A. "Cold Adaptation in Antarctic Notothenioids : Comparative Transcriptomics Reveals Novel Insights in the Peculiar Role of Gills and Highlights Signatures of Cobalamin Deficiency". *International Journal of Molecular Sciences* 2021, 22, 1812. doi: 10.3390/ijms22041812
- **Miccoli A**, Manni M, Picchietti S, Scapigliati G. "State-of-the-art vaccine research for aquaculture use: the case of three economically relevant fish species". *Vaccines* 2021, Special Issue "Vaccines for Aquaculture", 140. doi: 10.3390/vaccines9020140
- **Miccoli A**, Picchietti S, Fausto AM, Scapigliati G. "Evolution Of Immune Defence Responses As Incremental Layers Among Metazoa". *The European Zoological Journal* 2021, 44-57. doi: 10.1080/24750263.2020.1849435
- Picchietti S, **Miccoli A**, Fausto AM. "Gut immunity in European sea bass (*Dicentrarchus labrax*): a review". *Fish and Shellfish immunology* 2020, 108:94-108. doi: 10.1016/j.fsi.2020.12.001
- Picchietti S, Buonocore F, Guerra L, Belardinelli MC, De Wolf T, Couto A, Fausto AM, Saraceni PR, **Miccoli A**, Scapigliati G. "Molecular and cellular characterization of European sea bass CD3ε⁺ T lymphocytes and their modulation by microalgal feed supplementation". *Cell and Tissue Research* 2020. doi: 10.1007/s00441-020-03347-x
- Fakriadis I, **Miccoli A**, Karapanagiotis S, Tsele N, Mylonas C. "Optimization of a GnRHα treatment for spawning commercially reared greater amberjack *Seriola dumerili*: dose response and extent of the reproductive season". *Aquaculture* 2020, 521. doi: 10.1016/j.aquaculture.2020.735011
- Buonocore F, Gerdol M, Pallavicini A, Stocchi V, Randelli E, Belardinelli MC, **Miccoli A**, Saraceni PR, Secombes CJ, Scapigliati G, Wang T. "Identification, molecular characterization and functional analysis of interleukin (IL)-2 and IL-2like (IL-2L) cytokines in sea bass (*Dicentrarchus labrax* L.)". *Cytokine* 2020, 126. doi: 10.1016/j.cyto.2019.154898.

- **Miccoli A**, Saraceni PR, Scapigliati G. "Vaccines and immune protection of principal Mediterranean fish species". *Fish and Shellfish Immunology* 2019, 94:800-809. doi: 10.1016/j.fsi.2019.09.065.
- Picchietti S., Buonocore F., Guerra L., Belardinelli M.C., De Wolf T., Couto A., Saraceni P.R., **Miccoli A.**, "Characterization of CD3 ϵ + T lymphocytes in the teleost *Dicentrarchus labrax* L.". *Fish and Shellfish Immunology* 2019, 91:451-452. doi: 10.1016/j.fsi.2019.04.238.
- **Miccoli A**, Maradonna F, De Felice A, Caputo Barucchi V, Estonba A, Genangeli M, Vittori S, Leonori I, Carnevali O. "Detection of Endocrine Disrupting Chemicals and evidence of their effects on the HPG axis of the European anchovy *Engraulis encrasicolus*". *Marine Environmental Research* 2017, 127:137-147. doi: 10.1016/j.marenvres.2017.04.006.
- **Miccoli A**, Olivotto I, De Felice A, Leonori I, Carnevali O. "Characterization and transcriptional profiles of *Engraulis encrasicolus* GnRH forms". *Reproduction* 2016, 152 (6):727-739. doi: 10.1530/REP-16-0405.
- **Miccoli A**, Leonori I, Estonba A, De Felice A, Piccinetti CC, Carnevali O. "Clupeiformes' Egg Envelope Proteins characterization: the case of *Engraulis encrasicolus* as a proxy for stock assessment through a novel molecular tool". *Molecular Phylogenetics and Evolution* 2016, 100:95-108. doi: 10.1016/j.ympev.2016.04.006.
- **Miccoli A**, Dalla Valle L, Carnevali O. "The maternal control in the embryonic development of zebrafish". *General and Comparative Endocrinology* 2017, 245:55-68. doi: 10.1016/j.ygcen.2016.03.028.
- **Miccoli A**, Gioacchini G, Maradonna F, Benato F, Skobo T and Carnevali O. "Beneficial Bacteria Affect *Danio rerio* Development by the Modulation of Maternal Factors Involved in Autophagic, Apoptotic and Dorsalizing Processes". *Cellular Physiology and Biochemistry* 2015, 35:1706-1718. doi: 10.1159/000373983
- Piccinetti CC, Montis C, Bonini M, Laurà R, Guerrera MC, Radaelli G, Vianello F, Santinelli V, Maradonna F, Nozzi V, **Miccoli A**, Olivotto I. "Transfer of silica-coated magnetic (Fe₃O₄) nanoparticles through food: a molecular and morphological study in zebrafish". *Zebrafish* 2014, 11:567-579. doi: 10.1089/zeb.2014.1037

Reports (6)

- **Miccoli A.**, De Luca A., Marcelli, M., Scapigliati G., Peviani M., Joseph M., Zangeneh M – EU H2020 project ALPHEUS – 2022. "Fish mortality to be expected from prototype scale turbine". Deliverable 2.6, Dissemination Level: Public. 135 pp.
- Leonori I., De Felice A., Biagiotti I., Canduci G., Costantini I., Giuliani G., Malavolti S., **Miccoli A.**, Caccamo G., Penna P., Grilli F., Paschini E. 2017. Programma nazionale Italiano per la raccolta di dati alieutici 2014-2016 EC-DCR – MIPAAF Anno 2016. Campagna di ricerca in mare Sezione G - MEDIAS GSA 18 - Rapporto finale. CNR - ISMAR, Ancona, Italia. 73 pp.
- Leonori I., De Felice A., Biagiotti I., Canduci G., Costantini I., Giuliani G., Malavolti S., **Miccoli A.**, Caccamo G., Penna P., Grilli F., Paschini E. 2017. Programma nazionale Italiano per la raccolta di dati alieutici 2014-2016 EC-DCR – MIPAAF Anno 2016. Campagna di ricerca in mare Sezione G - MEDIAS GSA 17 - Rapporto finale. CNR - ISMAR, Ancona, Italia. 108 pp.
- Leonori I., De Felice A., Biagiotti I., Canduci G., Costantini I., Giuliani G., Malavolti S., Gabrielli G., **Miccoli A.**, Caccamo G., Penna P., Grilli F., Paschini E. 2016. Programma nazionale Italiano per la raccolta di dati alieutici 2014-2016 EC-DCR – MIPAAF Anno 2015. Campagna di ricerca in mare Sezione G - MEDIAS GSA 18 - Rapporto finale. CNR - ISMAR, Ancona, Italia. 75 pp.
- Leonori I., De Felice A., Biagiotti I., Canduci G., Costantini I., Giuliani G., Malavolti S., Gabrielli G., **Miccoli A.**, Caccamo G., Penna P., Grilli F., Paschini E. 2016. Programma Nazionale Italiano per la raccolta di dati alieutici 2014-2016 EC-DCR – MIPAAF Anno 2015. Campagna di ricerca in mare Sezione G - MEDIAS GSA 17 - Rapporto finale. CNR - ISMAR, Ancona, Italia. 120 pp.
- Leonori I, De Felice A, Biagiotti I, Canduci G, Costantini I, Giuliani G, De Marco R, Malavolti S, **Miccoli A**, Caccamo G, Penna P, Grilli F, Paschini E. "MEDIAS GSA 17 e GSA 18 - Pan-Mediterranean Acoustic Survey in the Adriatic Sea. FAO sub areas 37.2.1 and 37.2.2. Final report year 2014". Programma nazionale raccolta dati alieutici 2014-2016. EC-DCR - MIPAAF. CNR - ISMAR, Ancona. 158 pp.

Presentations at scientific meetings (21)

- Picchietti S, Buonocore F, De Carolis A, Massaro F, Taddei AR, Gerdol M, **Miccoli A**, Saraceni PR, Scapigliati G, Fausto AM. "Evaluation of the biological activity of two attacins from the stick insect *Carausius morosus*". XXVII Congresso Nazionale Italiano di Entomologia (CNIE), Palermo (Italy) 12-16/06/2023.
- Jochum K, **Miccoli A**, Hammer H, Poetz O, Braeuning A, Tralau T and Marx-Stoelting P. "Assessing Hepatotoxic and Non-hepatotoxic Compounds by means of New Approach Methods". 8th German Pharm-Tox Summit, Ulm (Germany) 6-9/03/2023.
- Picchietti S, Guerra L, Taddei AR, Saraceni PR, Gerdol M, Porcelli F, Bugli F, Rosato R, **Miccoli A**, Fausto AM, Scapigliati G, Buonocore F. "NK-lysin homologue from the Antarctic teleost *Trematomus bernacchii* and its Ala mutant: focus on antibacterial and anticancer activities". Oral presentation at SIICS 2023, Napoli 13-15/02/2023
- **Miccoli A**, Saraceni PR, Perrotta F, Taddei AR, Scapigliati G and Picchietti S. "Adverse effects of nanoplastics on the European sea bass *Dicentrarchus labrax* DLEC cell line". Poster presentation at the XIV Convegno Nazionale Istituto Nazionale Biostrutture e Biosistemi, Rome 17-18/11/2022.
- Pianese V, **Miccoli A**, Fausto, AM, Scapigliati G, and Picchietti S. "Brain and immunity in teleost fish: new insights from *Dicentrarchus labrax*". 4th Congress of Fish and Shellfish Immunology, Bodo 12-15/12/2022.
- Picchietti S, Franchi G, Carbone V, Teske J, **Miccoli A**, Pianese V, Scapigliati G and De Wolf T. "Partial or total replacement of live food regimes in the early rearing of the gilthead seabream (*Sparus aurata* L.): effects on growth, intestinal morphology and transcriptional profiles". Poster presentation at Mucosal Health in Aquaculture, Madrid 02-07/10/2022.
- De Wolf T, Franchi G, Carbone V, Teske J, **Miccoli A**, Pianese V and Picchietti S. "Effects of live food in the early rearing of the gilthead seabream (*Sparus aurata* L.) on larval intestinal morphology and transcriptional profiles". XX International Symposium On Fish Nutrition And Feeding Towards Precision Fish Nutrition and Feeding, Sorrento 05-09/06/2022
- De Luca A, Scanu S, Peviani M, Marcelli M and **Miccoli A**. "Study of the effects of low head Pumped Hydro Storage technology on coastal environment and fish passage". Oral presentation at European Geosciences Union (EGU) General Assembly 22, session OS3.3, Vienna (Austria) 23-27/05/2022
- Pianese V, **Miccoli A**, Scapigliati G, Buonocore F and Picchietti S. "Brain and immunity in the teleost fish *Dicentrarchus labrax* along development: A preliminary study". Oral presentation at SIICS 2022, Padova 16-18/02/2022
- Greco S, Gaetano A.S., Ansaloni F., Santovito G., Scapigliati G., **Miccoli A**, Pallavicini A., Giulianini P. G., Gerdol M. "Transcriptomic adaptations of Cryonotothenioidea to the antarctic environment and response to heat stress". Poster presentation at EVOLMAR 2020, 23-25/11/2020
- **Miccoli A**, Fakriadis I., Sigelaki I., Raftopoulos A., Mylonas C.C. "Spawning kinetics of greater amberjack *Seriola dumerili* in response to different doses of GnRHa implants". Oral presentation by AM at Aquaculture Europe 19, Berlin (Germany), 07-10/10/2019.
- Maas A.E, **Miccoli A**, Stamieszkin K., Cope J., Steinberg D. "Zooplankton metabolism, active flux and contribution to AOU in the N.E. Pacific Ocean". Oral presentation by AMAas at OCB Workshop, Woods Hole (USA), 24-27/06/2019.
- Picchietti S, Buonocore F., Guerra L., De Wolf T., Couto A., Saraceni P.R., **Miccoli A**, Fausto A.M., Scapigliati G. Characterization of CD3ε+ T lymphocytes in the teleost *Dicentrarchus labrax* L. Oral communication by S.P. at International Conference on Fish and Shellfish Immunology, Las Palmas de Gran Canaria (Spain), 16-20/06/2019.
- Maas A.E, Cope J., **Miccoli A**, Stamieszkin K., Steinberg D. "Characterization of zooplankton active flux in the N.E. Pacific Ocean". Poster at ASLO Aquatic Sciences Meeting, San Juan (Puerto Rico), 23/02-02/03 2019.

- **Blanco-Bercial L.**, Noyes T.J., Sirdeshpande D., Peruzza L., Granquist M., Schroder J., Dowell R., **Miccoli A.** "Fishon - Fish Community Surveys through environmental DNA in Bermuda". Oral communication by LBB at ASLO Ocean Sciences Meeting, Portland (Oregon, USA), 11-16/02/2018.
- **Miccoli A.**, Jones J.W., Maas, A.E., Blanco-Bercial L. "Mesozooplankton DVM during BIOS-SCOPE cruises". Poster at BIOS-SCOPE workshop, Portland (Oregon, US), 9-10/2/2018.
- **Leonori I.**, De Felice A., Biagiotti I., Canduci G., Costantini I., Malavolti S., **Miccoli A.**, Gabrielli G. "La metodologia acustica nella valutazione delle popolazioni ittiche in mare". Oral communication at the XXXVII Conferenza scientifica annuale A. I. S. Re. Associazione Italiana di Scienze Regionali. Quali confini? Territori tra identità e integrazione internazionale, Ancona (Italy), 20-22/9/2016.
- **Miccoli A.**, Falcinelli S., Gioacchini G., Maradonna F., Skobo T., Dalla Valle L., Carnevali O. "Maternal factors modulating *Danio rerio* development are affected by beneficial bacteria". Oral presentation at 5th International Workshop on the Biology of Fish Gametes, Ancona (Italy), 7-11/9/2015.
- **Miccoli A.**, Leonori I., De Felice A., Estomba A., Carnevali O. "Insights on the reproductive physiology of the European anchovy". Poster at 5th International Workshop on the Biology of Fish Gametes, Ancona (Italy), 7-11/9/2015.
- **Miccoli A.**, Gioacchini G., Maradonna F., Benato F., Skobo T., Dalla Valle L. and Carnevali O. "Beneficial bacteria affect egg quality by the modulation of maternal factors involved in autophagic and apoptotic processes during *Danio rerio* development". Oral presentation at 10th International Symposium on Reproductive Physiology of Fish, Olhão (Portugal), 25-30/5/2014.
- **Miccoli A.**, Gioacchini G., Maradonna F., Benato F., Skobo T., Dalla Valle L. and Carnevali O. "Parental microbial changes affect eggs quality by the modulation of maternal factors involved in autophagic and apoptotic process during *Danio rerio* development". Oral presentation at 4th International Workshop on the Biology of Fish Gametes, Faro (Portugal), 17-20/9/2013.
- **Miccoli A.**, Gioacchini G., Maradonna F., Benato F., Skobo T., Dalla Valle L. and Carnevali O. "Lactobacillus rhamnosus modulates maternal factors involved in autophagic and apoptotic process during *Danio rerio* development". Poster at 17th ICCE Barcelona (Spain), 15-19/7/2013.

Science communication

- Seminar "Biotechnologies in support of the aquaculture industry". Porta Futuro program of Lazio Region, June 2020.
- Article for general public in aquaculture (<http://www.mispecies.com/nav/actualidad/noticias/noticia-detalle/Una-revisin-cientfica-hace-un-repaso-de-las-actuales-vacunas-disponibles-para-la-acuicultura-mediterrnea/#.XiHWushKjDd>).
- Elsevier Mendeley Advisor Program, June 2019 onward.
- Voice of the Sea S6E5, Sea Grant University of Hawai'i, May 2019 – contributor.
- Mid-Atlantic Robotics IN Education (MARINE), Mar 2018.
- Sharper night, Sep 2016 – scientific divulgator and stand coordinator.
- Sharper night, Sep 2015 – scientific divulgator.
- FameLab Festival, Mar 2014 – presenter.
- Marine biology seminar for divers, Feb 2013 – presenter.

Awards

- **Best poster contribution** "Adverse effects of nanoplastics on the European sea bass *Dicentrarchus labrax* DLEC cell line", awarded by the scientific committee of I.N.B.B. (Istituto Nazionale Biostrutture e Biosistemi), November 2022
- **Excellence in Teaching** for the class of "Biotechnologies of animal molecules", awarded by the Rector of University of Tuscia, October 2022
- EU-funded European Fisheries Control Agency (EFCA) traineeship for March-October 2018
- **Best oral student presentation**, 5th International Workshop on the Biology of Fish Gametes. Judging committee: Prof. Habibi (University of Calgary), Prof. Peng (York University), Dr. Robles (University of Léon) and Prof. Yoshizaki (Tokyo University of Marine Science and Technology).
- FA1205 Aquagamete COST Action Grant for attending the training course "Molecular basis of fish gamete quality", Rennes (France).
- **CampusWorld scholarship** for traineeship at the University of the Sunshine Coast (Australia).

Competences

- **Strong organizational (time management, office organization, information management) and problem-solving skills:** I foresee possible issues and prioritize actions and solutions, always meeting deadlines.
- **Ability to switch between team player and leader roles:** I consider and implement ideas/suggestions by teammates and work for a common goal by collaborating with and encouraging others. If necessary, I can direct a group by prioritizing, analytically taking decisions and efficiently solving problems.
- **Proactive:** I put ideas into action, take the initiative and always seek out new approaches to increase the efficiency of my efforts.
- **Agile:** I adapt quickly to new working environments and grow professionally.
- **Professional:** I have a strong work ethics and meticulous attention to details. I deliver quality and results.
- **Friendly and outgoing, people-oriented:** I easily associate with others and integrate in long-established groups.
- **Broad-minded and empathic:** I have volunteered as visual communication manager for the A-series ASD Dolphins Ancona Wheelchair Hockey team for two and a half years by taking photographs and editing videos to increase public awareness on sport, disability and equal rights and for fund raising activities to counteract social issues funding cutbacks by Marche region.

Language skills

Mother tongue

Italian

Other languages

	Understanding				Speaking				Writing	
	Listening		Reading		Spoken interaction		Spoken production			
English	C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user
French	B2	Independent user	B1	Independent user	A1	Basic user	A1	Basic user	/	/
Greek	A1	Basic user	A1	Basic user	A1	Basic user	A1	Basic user	/	/

*(Common European Framework of Reference for Languages)***Certifications**

Certificate of Advanced English (CAE), University of Cambridge (ESOL)