



Teresa Balbi

Fixed-term researcher

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Education and training

2015

PhD in Environmental Sciences (Marine Science)

The edible mussel *Mytilus* as a model for studying the effects of manufactured nanoparticles in marine invertebrates: responses from the molecular to the organism level

University of Genova - Genova - IT

2011

Master Degree in Biological Monitoring

Utilization of biomarkers for the evaluation of the effects of hexavalent chromium in *Mytilus* - final mark: 110/110 cum laude

University di Genova - Genova - IT

Academic experience

2024 - ONGOING

Fixed-term researcher (B)

University of Genova - Genova - IT

2019 - 2024

Fixed-term researcher (A)

University of Genova - Genova - IT

2015 - 2019

Research fellow

University of Genova - Genova - IT

Teaching activity

I am currently co-lecturer of two academic courses for the Master Degrees in Marine Biology and Ecology at the University of Genova (Italy):

- Biomarkers of marine pollution (3+1 CFU)
- Physiology of marine organisms (2 CFU)

Postgraduate research and teaching activity

Supervision of PhD students, residents and post-doctoral fellows

Lecturer of the course «Shell biogenesis and environmental stressors: microscopical techniques to identify potential perturbation of developmental processes of marine invertebrates in a global change scenario» (1 CFU) for PhD students in Marine Sciences

and Technologies, Curriculum: Science of the Marine Ecosystem, University of Genova (Italy).

Supervision of 2 PhD students in Marine Science at DISTAV, University of Genova, and 1 PhD student within the ITN-MSCA-H2020 Pandora.

Research interests

My research activity is focused on the evaluation of physiological regulation of functions in response to environmental signals of marine invertebrates, in particular the model marine bivalve *Mytilus galloprovincialis*. Responses to both natural stressors (environmental *Vibrio* species and strains) and chemical stressors (emerging contaminants including nanoparticles and endocrine disruptors) have been investigated from molecular to organism level, with a comparative approach. Special emphasis was given on the mechanisms of innate immunity and on the physiological processes regulating early larval development.

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Grants

2023 - 2025

PRIN

Participant

PRIN-Miur project (2022YHXCWP): “Adverse impacts of plastic additive mixtures in the marine environment: from molecules to whole organism physiology”

2022 - 2025

PNRR, National Biodiversity Future Center (NBFC)

Participant

National Recovery and Resilience Plan (NRRP) (CN00000033): Spoke 2, WP3 “Sustainable valorization of marine resources”, activity 3.3 “Better health and welfare of fish without antimicrobials” and activity 3.4 “Selective breeding for disease resistance and resilience to environmental challenges for sustainable fish and shellfish aquaculture”

2016 - 2018

NANOPANTA

Participant

Italian Antarctic Research Program (PNRA16-00075B): “Polymeric nanoparticles in the marine environmental and antarctic biota”

2018 - 2020

MERMAIDS

Participant

EMBRC-France Project (n° OOV-AAP 2018-2161): “Impact of eMERging contaminants on *Mytilus galloprovincialis* early embryo biomineralization in the context of ocean acidification”

2016 - 2019

VIVALDI

Participant

H2020 Project (H2020-SFS-2015-2): “Preventing and mitigating farmed bivalve disease”

2012 - 2014

BIVALIFE

Participant

European Project (FP7-KBBE-2010-4): “Controlling infectious diseases in oysters and mussels in Europe”

Editorial activity

- Reviewer editor for *Frontiers in Marine Science*, section: Aquatic Physiology and Marine Pollution
- Scientific reviewer for international ISI journals (in alphabetical order: *Applied Sciences*, *Aquatic Toxicology*, *Environmental Pollution*, *Environmental Science and Pollution Research*, *Environmental Toxicology and Pharmacology*, *Frontiers*, *Marine Environmental Research*, *PeerJ*, *Regional Studies in Marine Science*, *Science of the Total Environment*)

Other professional activities

- Organization of the “Training school on BIOMARKERS IN BIVALVES” at the University of Milano Statale, organized by COST (European Cooperation in Science and Technology)
- Organization of the “School of Environmental Physiology” at the University of Piemonte Orientale, organized by the Italian Society of Physiology and the new European Society of Comparative Physiology and Biochemistry
- Member of the organizing committee “32nd European Society for Comparative Physiology and Biochemistry Congress-ESCPB”, Napoli
- Member of the organizing committee of the XIX Italian Association of Developmental and Comparative Immunobiology-SIICS meeting, Genova, 2018

Awards

Young Researcher Award

XVIII Italian Association of Developmental and Comparative Immunobiology-SIICS meeting