

# CURRICULUM VITAE

Name **Maria Rosaria Coscia**  
Date and birth place April 28th, 1964, Naples, Italy

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<https://scholar.google.com/citations?hl=it&user=aT6s5jYAAAAJ>

## ***Biographical Sketch***

Dr Coscia's main research line focuses in the field of comparative immunology, with particular attention to the humoral immune response of fish living in an apparently hostile environment such as the Antarctic marine ecosystem. To study the adaptation to low temperature, her model system is provided by fishes of the suborder Notothenioidei, which have radiated to become the most speciose and abundant fish taxon found in the Antarctic Ocean. She has investigated immunoglobulins, as key mediators of the humoral immune response, and the genes encoding them, disclosing several peculiarities that are unique to Antarctic fish. Her group was also actively involved in defining the molecular structure of other molecules of immunological interest in teleosts such as Toll-like receptors and the complement factor C3, analysing, by molecular dynamics simulations, their structure and dynamics. More recently, studies on cold adapted immunoglobulins inspired a new research line focused on the design and production of engineered high performance antibodies as innovative diagnostic/therapeutic tools, using the CRISPR-Cas9 technology. She has been involved in "finalizzati", bilateral and strategic CNR projects, POR CAMPANIA FESR and PON. She has been participating in several National Program for Antarctic Research (PNRA) projects studying the genetics, biochemistry, physiology of the Antarctic fish Notothenioidei.

Reviewer for several scientific journals and as *ad hoc* Review Editor for Frontiers in Marine Biotechnology, BMC Genomics, and Frontiers in Immunology.

Co-guest Editor for Special Issues in International Journal of Molecular Sciences and for a Frontiers Research Topic.

Member of the Italian Association of Developmental and Comparative Immunobiology (IADCI/SIICS), since 2000, and of the Italian Society of Clinical Immunology and Allergology since 2014.

## ***Education***

1988 Degree in Biological Sciences with honors, at the Department of Sciences, University of

Naples "Federico II"  
1988 Professional qualification as biologist  
1988 – 1989 Post-lauream apprenticeship, Institute of Protein Biochemistry (IBP), CNR, Naples (Italy)  
1989 – 1991 CNR-MISM Research Fellow, laboratory of immunochemistry of allergens, IBP, CNR

### ***Professional Experience***

1991 – 1992 Guest Investigator, laboratory of biochemistry, The Rockefeller University, NYC (USA)  
1992 – 1998 Professional Research Assistant, laboratory of comparative immunology, IBP, CNR, Naples  
1998 – 2020 Researcher, Institute of Biochemistry and Cell Biology (IBBC), formerly Institute of Protein Biochemistry (IBP) – National Research Council of Italy, Naples  
2020 – present Senior Researcher, IBBC, CNR, Naples

### ***Teaching Activity***

- Advanced training course in the framework of the National Research Project "Chemical-toxicological safety of the environment", 2013
- Adjunct Professor at the Università degli Studi della Campania Luigi Vanvitelli for the Master's Degree in Biotechnology for Health. Course: "Analysis of structures and mechanisms responsible for cellular functions". Academic year 2016-2017.
- Lesson for the XXXIV PhD Program in Molecular Life Sciences, Università degli Studi della Campania Luigi Vanvitelli, Caserta, Italy, 2019
- Advisor for the IBBC PhD Program, undergraduate students in Biological Sciences and PhD students
- External Referee for PhD thesis

### ***Other Professional Activities***

- Member of the IBP Scientific Board, 2009-2019
- External Seminars Coordinator at IBP, 2006-2018
- Co-founder and coordinator of the CNR Immunology Network (CIN), since 2016
- Board Member of the Italian Society of Developmental and Comparative Immunobiology (SIICS), since 2022
- Member of several Selection Committees for postgraduated fellowships, postdoc positions, training positions, fixed-term researcher positions granted at IBP, 2015-2017
- Member of Organizing Committees for several IBBC activities aimed at disseminating scientific research findings in favour of both scientific audience and the lay public, since 2003
- Selection Committee Member for recruitment and training of Early Stage Researchers funded in the framework of H2020 Marie Skłodowska-Curie ITN programme. International PhD Programs INCIPIT, PANDORA, ENDONANO, 2017-2019