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## PERSONAL INFORMATION

## Francesco Dondero



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**POSITION** Ecology Professor, Università del Piemonte Orientale Amedeo Avogadro, Vercelli Novara Alessandria

## EDUCATION AND WORK EXPERIENCE

Dr. Dondero is Professor of Ecology at the Department of Science and Technological Innovation, University of Piemonte Orientale, Alessandria, Italy. Principal Investigator and coordinator of the Global chAnge ecology and biologicAl control (GAyA) laboratories in Alessandria (I) and Rio de Janeiro (Brazil); his main research topics are Molecular Systems Biology, Systems Toxicology; biological effects of pollution i.e. nanomaterials and microplastics; heavy metal binding proteins and related biotechnological applications. Currently, Dr. Dondero is also visiting professor of Systems Biology at the Institute of Biophysics, Federal University of Rio de Janeiro.

He authored more than 70 peer-reviewed papers in either international journals or books and raised more than 0.5 M Euros from international funding agencies by the last 5 years.

Dr. Dondero devoted his scientific interests to two innovative scientific research lines in applied ecology: (i) the study of alien species with regard to freshwater bivalve genomics for which he's ambassador of the Global Invertebrate Genomics Alliance; (ii) the evaluation of ecological and ecotoxicological effects of emerging pollutants such as Engineered Nanomaterials and nanoParticles (ENP). We recall, in this regard, that Dr. Dondero is currently Research Unit Head in the EU Horizon 2020 research project NANOAGENTOOLS aimed to develop methods for a more accurate determination of toxicological effects of nanomaterials in either human and environmental model systems; Research Unit Head in the EU-FP7 Project NANOFATE (Coordinator, Dr. Claus Svendsen, CEH, NERC, UK) for the period 2010-2014; Work Package Leader for investigation on the mechanistic effects of nano-objects in different biological model species. Member of the EU nanoSafetyCluster, an emanation of the European Commission (Directorate-General for Research and Innovation) for which he co-authored the book, Nanosafety in Europe 2015-2025: Towards Safe and Sustainable Nanomaterials and Nanotechnology Innovations, a program document containing guidelines for future research on environmental nanotoxicology within the Horizon 2020 program.

As for research line on invasive alien species, Dr. Dondero's scientific attention fell on bivalve molluscs including the huge ecological and economic damage caused by zebra mussels in Europe and US and *Limnoperna fortunei* in Latin America. To study the ecological success (adaptation, utilization of energy resources and the establishment of new trophic relationships) Dr. Dondero has been using molecular approaches to characterize mollusc transcriptomes, genomes and proteomes. To gain these studies, he joined Global Invertebrate Genomics Alliance (GIGA) the consortium and was appointed as to International Research Fellow by the Ministry of Education in Brazil for the the sequencing of the Golden Mussel Genome. Given the ability to attract funds and coordinate research activities, Dr. Dondero formed an international research group based in Europe and Brazil at the Federal University of Rio de Janeiro (Prof. M. Rebelo, co-PI). Current scientific collaborations include several national institutions as well as the Finnish Environment Institute (Dr. Kari Lehtonen); Norsk Institutt for Vannforskning (Dr. Steven Brooks and Knut Erik Tollefsen); the University of the Basque Country Bilbao (Prof. Ibon Cancio), the UK National Environmental Research Center (Dr. Claus Svendsen and Dr. David Spurgeon); ETH Zurich (Dr. Eva. Freisinger); University of Tuebingen (Dr. Diana Maier); the Woods Hole Oceanographic Institution (USA) (Dr. John Stegeman & Jared Goldstone).

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Dr. Dondero authored more than 80 scientific publications and a thousand either national or international meetings.

Currently he has been appointed as to Scientific expert for different international funding agencies such as the National Environmental Research Center (NERC), UK; Conselho Nacional de Desenvolvimento Científico e Tecnológico, Brazil; Agence nationale de la recherche (ANR), France; Research Foundation Flanders (FWO) Belgium.

Dr. Dondero is an expert on innovation and former founder and scientific director from 2000 to 2010 of the biotech start-up Izkus Ricerche Mare e Ambiente, Italy.



This project has received funding  
from the European Union's Horizon 2020  
research and innovation programme

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