

CURRICULUM VITAE

BIODATA

Francesco Dondero, born in Genoa, 27 01 1972.
Degree in Biological Sciences, with honors, 1996
PhD in Environmental Sciences, 2001

CURRENT POSITION

Senior Scientist, DISIT, University of Eastern Piedmont, Alessandria
Temporary Professor of Ecology, DISIT, University of Eastern Piedmont, Alessandria
Visiting Professor, Federal University of Rio de Janeiro, Department of Biology, Institute of Biophysics.

RESEARCH ACTIVITY

After taking service as Senior Scientist at DISAV, Università del Piemonte Orientale, Amedeo Avogadro, Italy, Dr. Francesco Dondero finalized his previous post-doctoral studies on environmental genomics and proteomics publishing several articles in Q1 scientific journals and participating in numerous national and international conferences, even as invited speaker (see attached list). He participated as staff scientist at the EU-FP7 Meece being involved in the evaluation of global change effects on marine organisms, viz. heat and heat / heavy metals. He presented data at major international conferences such as the sixteenth PRIMO conference in Long Beach (USA) (see attached list). He improved gene expression analysis techniques by means of a new 44 K gene probes microarray for the congener *Mytilus* (spp). These data were presented at the XVIII Congress internazionale PRIMO in Norway (see attached list).

Later on, he devoted his scientific interests to two innovative scientific research lines in applied ecology: (i) the study of alien species with particular regard to freshwater bivalve genomics; (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 was Research Unit Head in the EU-FP7 Project NANOFATE (Coordinator, Dr. Claus Svendsen, CEH, NERC, UK) for the period 2010-2014. In this project he covered also the role of Work Package Leader for WP5 (ENP toxicokinetics and toxicodynamics).

Dr. Dondero's approach to applied ecology and ecotoxicology typically considers six hierarchical orders of information: the bioaccumulation of toxicant; the molecular effects on genes and proteins, (sub) cellular effects, individual effects (mortality, ecotoxicological endpoints), population effects (modeling of population dynamics by means of Dynamic Energy Budget Theory) and the community level (Species Sensitivity Distribution SSD). The results of this research project were presented in prestigious international conferences. To cite the most important events Dr. Dondero was a speaker at the international conference 1st Marine NanoEcotox Workshop (MANET) in 2012 that brought together world experts on marine nanotoxicology; then he was invited to lecture at the University of Oxford; he was organizer, as well as the moderator and rapporteur of the international conference "Mechanistic toxicology of engineered nanomaterials: state of the art and future perspectives" organized at the

University of Birmingham (UK). Eventually he was organizer, as well as the chair and presenter in a nano-ecotoxicology session at the annual conference of the European Society of Environmental Toxicology and Chemistry (SETAC), the most prestigious event in the field of ecotoxicology at world-level (see attached list for a more complete representation).

At the same time joins the EU nanoSafetyCluster, an emanation of the European Commission (Directorate-General for Research and Innovation) which brings together the leading international experts participating in European Framework projects (VII and VIII FWP, H2020) on various environmental issues related to nano-chemical. In this context, he assumes a position of responsibility as vice-coordinator of one of the working group on mechanisms of toxicity (WG5, Toxicokinetics and Toxicodynamics, then merged in macrogroup WG2, Hazard) and participates in the drafting of volume scientific Nanosafety in Europe 2015-2025 : Towards Safe and Sustainable Nanomaterials and Nanotechnology Innovations, a program document that contains the state of the art and guidelines for future research on environmental nanotoxicology within the Horizon 2020 program.

For the research line described above has worked with the following international research institutions: NERC Centre for Ecology and Hydrology-(CEH), (UK); Vrije Universiteit Amsterdam (NL); Universidade de Aveiro (P); Oxford University Begbroke Science Park (UK); Gothenburg University (S); Cardiff School of Biosciences (UK); University of Exeter where he carried out research as Visitor Scientist; Prof. Gianluca will (University of Palermo). Recently, Dr. Dondero was granted as Head of Research Unit in the EU Horizon 2020 research project NANOGENTOOLS aimed to develop methods for a more accurate determination of ecotoxicological effects of nanomaterials in aquatic and terrestrial animal species, Integration of ecotoxicological data in practical indexes to be used in environmental monitoring.

As for the line of research on invasive alien species, Dr. Dondero's scientific attention fell on bivalve molluscs for various reasons, including the huge ecological and economic damage caused by species such as zebra mussel and *Limnoperna fortunei*. To study the ecological success (adaptation, utilization of energy resources and the establishment of new trophic relationships) of these species Dr. Dondero has been using molecular approaches to characterize mollusc transcriptomes, genomes and proteomes. To gain these studies, he joined Global Invertebrate Geomics Alliance (GIGA) the consortium, for which he is "ambassador" for bivalve genomics. It also made an official period of three months as visiting scientist at the Federal University of Rio de Janeiro, where he also taught an official course "Introduction to Systems Biology" at the Department of Biology, Institute of Biophysics. In this period abroad, he devoted to the study of *L. fortunei* genome and proteome. The undersigned is still a research fellow of the Brazilian Ministry of Education (CAPES / MEC) in the project "Establishing non-traditional model genomics research in Brazil: The sequencing of the Golden Mussel Genome.

Given the ability to attract funds and organize the research, over the last three years, Dr. Dondero formed and directed its own research group recruiting undergraduated and graduated students, as well as some national and foreign PhD students. The current scientific collaborations include both national

research institutes including the Interdepartmental Centre for Research on Technology-Environment Interaction of the University of Palermo (CIRITA); 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), the Federal University of Rio de Janeiro (Prof. M. Rebelo), University of Genoa, (Prof. Laura Vergani); ETH Zurich (Prof. A.G. Busetto); University of Tuebingen (Dr. Diana Maier); the Woods Hole Oceanographic Institution (USA) (Dr. John Stegeman).

Scientific publications:

Dr. Dondero co-authored 78 scientific publications of which 70 in indexed journals with Impact Factor and 8 contributions in scientific books (6) or proceedings (2).

According to Thomson Reuters sources (WOS) the total number of citations is 1432 (based on 61 papers).

Il numero di citazioni medio sui contributi indicizzati è 24.43 (ventitre/47)

The number of contributions with Impact Factor are 70.

Total IP is 177.254

Average IP: 2.53

Bibliometric index

Source Scopus

Author: Francesco Dondero

ID: 35738427000

N. records for the calculation of indexes: 43

N.citation :1518

H index: 21

N. citations per record: 35.3

N. citations without self-citation: 1427

N. citations per record without self-citation: 35.3

H index without self-citation index: 20

1) Maria, Vera L; Amorim, Mónica JB.; Bebianno, Maria João; Dondero, Francesco
Transcriptomic effects of the non-steroidal anti-inflammatory drug
Ibuprofen in the marine bivalve *Mytilus galloprovincialis* Lam. Marine
Environmental Research 2016 Accepted for publication ISSN 0141-1136
IP 2.762

2) Maier, Diana; Benisek, Martin; Blah, Ludek; Dondero, Francesco; Giesy, John
P.; Köhler, Heinz-R.; Richter, Doreen; Scheurer, Marco; Triebkorn, Rita;
Reduction of dioxin-like toxicity in effluents by additional wastewater
treatment and related effects in fish Ecotoxicology and Environmental
Safety 2016 Accepted for publication ISSN 0147-6513 IP 2.762

3) Saggese, Ilenia; Sarà, Gianluca; Dondero, Francesco; Silver nanoparticles affect functional bioenergetic traits in the invasive Red Sea mussel *Brachidontes pharaonis*; *BioMed Research International - Toxicology Issue The Monitoring and Assessment of Aquatic Toxicology (MAAT)* 2016 Accepted for publication
ISSN: 2314-6133 2314-6141 IP 1.579

4) Calisi, Antonio; Grimaldi, Annalisa; Leomanni, Alessandro; Lionetto, Maria Giulia; Dondero, Francesco; Schettino, Trifone Trifone. Multibiomarker response in the earthworm *Eisenia fetida* as tool for assessing multi-walled carbon nanotube ecotoxicity *Ecotoxicology* ISSN: 0963-9292 (Print) 1573-3017. 2016 Accepted for publication May 2016, Vol 25, Issue 4, pp 677-687 IP 2.67.

5) Uliano-Silva, Marcela; Americo, Juliana A; Brindeiro, Rodrigo; Dondero, Francesco; Prosdocimi, Francisco; Rebelo, Mauro F; The Genetics of the Golden Mussel (*Limnoperna fortunei*): Are Genes Related to Invasiveness? *Limnoperna Fortunei. The Ecology, Distribution and Control of a Swiftly Spreading Invasive Fouling Mussel.* Boltovskoy, D. (Ed.) pp 67-75 2015 Springer. ISBN 978-3-319-13494-9. Contributo in libro (volume).

6) Rodriguez Ruiz, Amaia; Dondero, Francesco; Viarengo, Aldo; Marigomez, Ionan; Toxicity assessment of diesel and metal contaminated soils through elutriate and solid phase assays with the slime mould, *Dictyostelium discoideum* *Environmental Toxicology and Chemistry* Accepted manuscript online: 9 OCT 2015 Wiley Online Library ISSN 1552-8618 IP 3.225 DOI: 10.1002/etc.3276

7) Dondero, Francesco; Calisi, Antonio; Evaluation Of Pollution Effects In Marine Organisms: "Old" And "New Generation" Biomarkers. In Coastal Ecosystems: Experiences and Recommendations for Environmental Monitoring Programs. 2015 M. Bastia (Ed) Nova Science Publishers, New York. ISBN 978-1-63482-189-6 Contributo in libro (volume) N. Cit 1

8) Corsi, Ilaria; Cherr, Gary N; Lenihan, Hunter S; Labille, Jerome; Hasselov, Martin; Canesi, Laura; Dondero, Francesco; Frenzilli, Giada; Hristozov, Danail; Puentes, Victor; Common strategies and technologies for the ecosafety assessment and design of nanomaterials entering the marine environment *ACS nano* 8 10 9694-9709 2014 ACS Publications. 1936-0851 1936-086X. IP 12.033 N. cit. 22

9) Uliano-Silva, Marcela; Americo, Juliana Alves; Brindeiro, Rodrigo; Dondero, Francesco; Prosdocimi, Francisco; de Freitas Rebelo, Mauro; Gene discovery through transcriptome sequencing for the invasive mussel *Limnoperna fortunei* *Plos One* 9 7 e102973 2014. 1932-6203. IP 3.534 N. cit. 6

10) Savolainen K, Backman U, Brouwer D, Fadeel B, Fernandes T, Kuhlbusch T, Landsiedel R, Lynch I, Pylkkänen L, ... Dondero F., et al. Nanosafety in Europe 2015 – 2025. Towards Safe and Sustainable Nanomaterials and Nanotechnology Innovations. Savolainen K, Backman U, Brouwer D, Fadeel B, Fernandes T, Kuhlbusch T, Landsiedel R, Lynch I, Pylkkänen L (Eds). 2013 Finnish Institute

- of Occupational Health, Helsinki ISBN 978-952-261-311-0 Contributo in libro (volume). N. Cit totali del libro 45 (fonte Google Scholar)
- 11) Americo, Juliana Alves; Dondero, Francesco; Moraes, Milton Ozorio; Allodi, Silvana; de Freitas Rebelo, Mauro; Gene discovery in the tropical scallop *Nodipecten nodosus*: Construction and sequencing of a normalized cDNA library *Marine environmental research* 91 34-40 2013 Elsevier. 0141-1136 1879-0291 IP 2.238 N. cit. 1
- 12) de Freitas Rebelo, Mauro; Dondero, Francesco; What are we doing to prepare the next generation of ecotoxicologists? *Marine environmental research* 91 1 2013 1879-0291 IP 2.238
- 13) Boatti, L; Boria, I; Cancio, I; Wenne, R; Lethonen, K; Vassilenko, E; Mignone, F; Dondero, F; Development of high-resolution arrays in *Mytilus* spp. for eco-physiological applications and toxicogenomics *Comparative Biochemistry and Physiology Part A: Molecular & Integrative Physiology* 163 S49 2012 Pergamon 1095-6433 IP 2.371
- 14) Dondero, Francesco; Banni, Mohamed; Negri, Alessandro; Boatti, Lara; Dagnino, Alessandro; Viarengo, Aldo; Interactions of a pesticide/heavy metal mixture in marine bivalves: a transcriptomic assessment. *BMC genomics* 12 1 195 2011 BioMed Central Ltd. 1471-2164 IP 4.073 N. Cit. 37
- 15) Banni, Mohamed; Negri, Alessandro; Mignone, Flavio; Boussetta, Hamadi; Viarengo, Aldo; Dondero, Francesco; Gene expression rhythms in the mussel *Mytilus galloprovincialis* (Lam.) across an annual cycle *PLoS One* 6 5 e18904 2011 Public Library of Science. 1932-6203 IP 4.092 N. Cit. 38
- 16) Canesi, Laura; Negri, Alessandro; Barmo, Cristina; Banni, Mohamed; Gallo, Gabriella; Viarengo, Aldo; Dondero, Francesco; The organophosphate Chlorpyrifos interferes with the responses to 17 beta-estradiol in the digestive gland of the marine mussel *Mytilus galloprovincialis* *PLoS One*. 2011;6(5):e19803 2011 doi: 10.1371/journal.pone.0019803. 1932-6203 IP 4.092 N. cit. 23
- 17) Shaw, JP; Dondero, F; Moore, MN; Negri, A; Dagnino, A; Readman, JW; Lowe, DR; Frickers, PE; Beesley, A; Thain, JE; Integration of biochemical, histochemical and toxicogenomic indices for the assessment of health status of mussels from the Tamar Estuary, UK *Marine environmental research* 72 1 13-24 2011 Elsevier 0141-1136 IP 2.276 N. cit. 20
- 18) Banni, Mohamed; Jebali, Jamel; Guerbej, Hamadi; Dondero, Francesco; Boussetta, Hamadi; Viarengo, Aldo; Mixture toxicity assessment of nickel and chlorpyrifos in the sea bass *Dicentrarchus labrax* *Archives of environmental contamination and toxicology* 60 1 124-131 2011 Springer 1471-2164 IP 1.927 N. Cit. 12
- 19) Dondero, Francesco; Negri, Alessandro; Boatti, Lara; Marsano, Francesco; Mignone, Flavio; Viarengo, Aldo; Transcriptomic and proteomic effects of a neonicotinoid insecticide mixture in the marine mussel (*Mytilus galloprovincialis*, Lam.) *Science of the total environment* 408 18 3775-3786 2010 Elsevier 0048-9697 IP 3.19 N. Cit. 31
- 20) Attig, Hajer; Dagnino, Alessandro; Negri, Alessandro; Jebali, Jamel; Boussetta, Hamadi; Viarengo, Aldo; Dondero, Francesco; Banni, Mohamed; Uptake and biochemical responses of mussels *Mytilus galloprovincialis* exposed to

- sublethal nickel concentrations *Ecotoxicology and environmental safety* 73
7 1712-1719 2010 Elsevier 0147-6513 IP 2.34 N. Cit. 23
- 21) Marsano, Francesco; Boatti, Lara; Ranzato, Elia; Cavaletto, Maria; Magnelli, Valeria; Dondero, Francesco; Viarengo, Aldo; Effects of mercury on *Dictyostelium discoideum*: Proteomics reveals the molecular mechanisms of physiological adaptation and toxicity *Journal of proteome research* 9
6 2839-2854 2010 ACS Publications 1535-3893 IP 5.46
N. Cit. 11
- 22) Negri, Alessandro; Dondero, Francesco; Dagnino, Alessandro; Boatti, Lara; Sforzini, Susanna; Capri, F; Oliveri, Caterina; Viarengo, A; Chessa, Lorenzo Antonio; Application of a biomarker/transcriptomics approach utilizing mussels in the evaluation of the water quality in a marine coastal area of Medio Campidano (Sardinia, Italy) *Comparative Biochemistry and Physiology Part A: Molecular & Integrative Physiology* 157 S25 2010 Pergamon
1095-6433 IP 2.371
- 23) Muttray, A; Dondero, F; Vassilenko, E; Negri, A; Baldwin, S; Viarengo, A; Screening neoplastic haemocytes of two *Mytilus* species for changes in gene expression *Comparative Biochemistry and Physiology Part A: Molecular & Integrative Physiology* 157 S6 2010 Pergamon
1095-6433 IP 2.371
- 24) Boatti, L; Dondero, F; Viarengo, A; Mignone, F; Development of a web-based system for the collection, analysis and data mining of ecotoxicological related data: A starting project *Comparative Biochemistry and Physiology Part A: Molecular & Integrative Physiology* 157 S5 2010
Pergamon 1095-6433 IP 2.371
- 25) Canesi, L; Marchi, B; Mancinelli, G; Fabbri, R; Capri, F; Dondero, F; Viarengo, A; Gallo, G; Can Endocrine disrupters interfere with Ca²⁺ homeostasis in invertebrate cells? *Journal of Biological Research-Bollettino della Società Italiana di Biologia Sperimentale* 83 1 2010 eISSN
2284-0230 pISSN 1826-8838. IP 0.65
- 26) Canesi, L; Barmo, C; Fabbri, R; Olivieri, S; Gallo, G; Boatti, L; Dondero, F; Viarengo, A; Effects of hexavalent chromium in *Mytilus galloprovincialis* *Comparative Biochemistry and Physiology Part A: Molecular & Integrative Physiology* 157 S36 2010 Pergamon 1095-6433 IP 2.371
- 27) Dagnino, A; Sforzini, S; Boatti, L; Capri, F; Oliveri, C; Negri, A; Dondero, F; Viarengo, A; Sub-lethal effects of copper combined with temperature stress in the marine mussel *Mytilus galloprovincialis* *Comparative Biochemistry and Physiology Part A: Molecular & Integrative Physiology* 157 S38-S39
2010 Pergamon 1095-6433 IP 2.371
- 28) Dondero, F; Negri, A; Boatti, L; Marsano, M; Bellone, M; Viarengo, A; Bloomfield, G; Kay, R; Ivens, A; Sato, D; Systems biology assessment of binary mixture effects in the social amoeba *Dictyostelium discoideum* *Comparative Biochemistry and Physiology Part A: Molecular & Integrative Physiology* 157 S4 2010 Pergamon 1095-6433 IP 2.371
- 29) Caricato, Roberto; Lionetto, Maria Giulia; Dondero, Francesco; Viarengo, Aldo; Schettino, Trifone Carbonic anhydrase activity in *Mytilus galloprovincialis* digestive gland: Sensitivity to heavy metal exposure. *Comparative Biochemistry and Physiology C-Toxicology & Pharmacology* 152 Issue: 3 Pages: 241-247 2010 Elsevier 1532-0456 IP 2.235 N. Cit. 9

- 30) Rodriguez-Ruiz, A; Boatti, L; Dondero, F; Viarengo, A; Marigomez, I;
 The slime mold *Dictyostelium discoideum* as a test organism to measure soil pollution effects: From cellular biomarkers to parameters indicative of organism fitness Comparative Biochemistry and Physiology Part A: Molecular & Integrative Physiology 157 S21 2010 Pergamon 1095-6433 IP 2.371
- 31) Banni, Mohamed; Negri, Alessandro; Rebelo, Mauro; Rapallo, Fabio; Boussetta, Hamadi; Viarengo, Aldo; Dondero, Francesco; Expression analysis of the molluscan p53 protein family mRNA in mussels (*Mytilus* spp.) exposed to organic contaminants Comparative Biochemistry and Physiology Part C: Toxicology & Pharmacology 149 3 414-418 2009 Elsevier 1532-0456 IP 2.582 N. Cit. 19
- 32) Boatti, L; Marsano, F; Negri, A; Dondero, F; Viarengo, A; Environmental proteomics in the social amoeba *Dictyostelium discoideum* Comparative Biochemistry and Physiology Part A: Molecular & Integrative Physiology 154 1 S13-S14 2009 Pergamon 1095-6433 IP 2.371
- 33) Bauer, Mario; Dondero, Francesco; Olivieri, Caterina; Viarengo, Aldo Giuseppe; Rudzok, Susanne; Comparative transcriptomic responses to acute nickel and chlorpyrifos exposure in human HepG2. Toxicology Letters 189 S91 2009 Elsevier 0378-4274 IP 3.479
- 34) Negri, A; Viarengo, A; Dondero, F; Banni, M; Mignone, F; Rhythms of gene expression in mussel *Mytilus galloprovincialis* during an annual cycle Comparative Biochemistry and Physiology Part A: Molecular & Integrative Physiology 154 1 S5 2009 Pergamon 1095-6433 IP 2.371
- 35) Jones, Oliver AH; Dondero, Francesco; Viarengo, Aldo; Griffin, Julian L; Metabolic profiling of *Mytilus galloprovincialis* and its potential applications for pollution assessment Mar. Ecol. Prog. Ser 369 169-179 2008 0171-8630 IP 2.631 N. Cit. 43
- 36) Dagnino, Alessandro; Sforzini, Susanna; Dondero, Francesco; Fenoglio, Stefano; Bona, Elisa; Jensen, John; Viarengo, Aldo; A weight of evidence approach for the integration of environmental "triad" data to assess ecological risk and biological vulnerability Integrated Environmental Assessment and Management 4 3 314-326 2008 Wiley Online Library 311551-3777 IP 1.377 N. Cit. 31
- 37) Buico, Alessandra; Cassino, Claudio; Dondero, Francesco; Vergani, Laura; Osella, Domenico; Radical scavenging abilities of fish MT-A and mussel MT-10 metallothionein isoforms: an ESR study Journal of inorganic biochemistry 102 4 921-927 2008 Elsevier 0162-0134 IP 3.13 N. Cit. 27
- 38) Sforzini, Susanna; Dagnino, Alessandro; Torrielli, Sara; Dondero, Francesco; Fenoglio, Stefano; Negri, Alessandro; Boatti, Lara; Viarengo, Aldo; Use of highly sensitive sublethal stress responses in the social amoeba *Dictyostelium discoideum* for an assessment of freshwater quality Science of the total environment 395 2 101-108 2008 Elsevier 0048-9697 1879-1026 IP 2.579 N. Cit. 9
- 39) Minicozzi, Pamela; Rapallo, Fabio; Scalas, Enrico; Dondero, Francesco; Accuracy and robustness of clustering algorithms for small-size applications in bioinformatics Physica A: Statistical Mechanics and its

- Applications 387 25 6310-6318 2008 Elsevier 0378-4371
IP 1.441 N. Cit. 1
- 40) Dondero, Francesco; Jones, Oliver AH; Banni, Mohamed; Boatti, Lara; Minicozzi, Pamela; Negri, Alessandro; Griffin, Julian L; Viarengo, Aldo; Molecular effects of Ni and clorpyrifos in the digestive gland tissue of *Mytilus galloprovincialis*: A systems biology approach Marine Environmental Research 66 139-140 2008 0141-1136 IP 2.032 N. Cit. 1
- 41) Canesi, L; Borghi, C; Gallo, G; Capri, F; Viarengo, A; Dondero, F; Effects of the organophosphate pesticide Chlorpyrifos on the responses of *Mytilus* digestive gland to the natural estrogen 17 Beta-Estradiol Comparative Biochemistry and Physiology Part A: Molecular & Integrative Physiology 151 1 S3 2008 Pergamon 1095-6433 IP 2.371
- 42) Marsano, F; Boatti, L; Negri, A; Cigar, M; Dondero, F; Viarengo, A; Proteomic effects of different Hg concentration in *Dictyostelium discoideum* amoebae Comparative Biochemistry and Physiology Part A: Molecular & Integrative Physiology 151 1 S40 2008 Pergamon 1095-6433 IP 2.371
- 44) Banni, M; Dondero, F; Jebali, J; Guerbej, H; Boussetta, H; Viarengo, A; Assessment of heavy metal contamination using real-time PCR analysis of mussel metallothionein mt10 and mt20 expression: a validation along the Tunisian coast Biomarkers 12 4 369-383 2007 Taylor & Francis 1354-750X IP 1.978 N. Cit. 48
- 44) Vergani, Laura; Lanza, Cristina; Borghi, Cristina; Scarabelli, Linda; Panfoli, Isabella; Burlando, Bruno; Dondero, Francesco; Viarengo, Aldo; Gallo, Gabriella; Effects of growth hormone and cadmium on the transcription regulation of two metallothionein isoforms Molecular and cellular endocrinology 263 1 29-37 2007 Elsevier 0303-7207 IP 2.971 N. Cit. 22
- 45) Vergani, Laura; Grattarola, Myriam; Grasselli, Elena; Dondero, Francesco; Viarengo, Aldo; Molecular characterization and function analysis of MT-10 and MT-20 metallothionein isoforms from *Mytilus galloprovincialis* Archives of biochemistry and biophysics 465 1 247-253 2007 Elsevier 0003-9861 (print) 1096-0384 (web) IP 2.578 N. Cit. 19
- 46) Viarengo, A; Dondero, F; Pampanin, DM; Fabbri, R; Poggi, E; Malizia, M; Bolognesi, C; Perrone, E; Gollo, E; Cossa, GP; A biomonitoring study assessing the residual biological effects of pollution caused by the Haven wreck on marine organisms in the Ligurian Sea (Italy) Archives of environmental contamination and toxicology 53 4 607-616 2007 Springer 0090-4341 IP 1.620 N. Cit. 15
- 47) Venier, Paola; De Pittà, Cristiano; Pallavicini, Alberto; Marsano, Francesco; Varotto, Laura; Romualdi, Chiara; Dondero, Francesco; Viarengo, Aldo; Lanfranchi, Gerolamo; Development of mussel mRNA profiling: can gene expression trends reveal coastal water pollution? Mutation Research/Fundamental and Molecular Mechanisms of Mutagenesis 602 1 121-134 2006 Elsevier 0027-5107 IP 4.111 N. Cit. 79
- 48) Dondero, Francesco; Piacentini, Luciana; Marsano, Francesco; Rebelo, Mauro; Vergani, Laura; Venier, Paola; Viarengo, Aldo; Gene transcription profiling in pollutant exposed mussels (*Mytilus* spp.) using a new low-density

- oligonucleotide microarray. Gene 376 1 24-36 2006 Elsevier
0378-1119 IP 2.721 N. Cit. 73
- 49) Dondero, Francesco; Dagnino, Alessandro; Jonsson, Henrik; Capri, Flavia; Gastaldi, Laura; Viarengo, Aldo; Assessing the occurrence of a stress syndrome in mussels (*Mytilus edulis*) using a combined biomarker/gene expression approach Aquatic Toxicology 78 S13-S24 2006 Elsevier 0166-445X IP 2.964 N. Cit. 72
- 50) Dondero, Francesco; Jonsson, Henrik; Rebelo, Mauro; Pesce, Gabriella; Berti, Elena; Pons, Giovanni; Viarengo, Aldo; Cellular responses to environmental contaminants in amoebic cells of the slime mould *Dictyostelium discoideum* Comparative Biochemistry and Physiology Part C: Toxicology & Pharmacology 143 2 150-157 2006 Elsevier 1532-0456 IP 2.345 N. Cit. 21
- 51) Grattarola, Myriam; Carloni, Mara; Dondero, Francesco; Viarengo, Aldo; Vergani, Laura; Expression, purification and preliminary characterization of mussel (*Mytilus galloprovincialis*) metallothionein MT20 Molecular biology reports 33 4 265-272 2006 Springer 0301-4851 IP 0.712 N. Cit. 11
- 52) Dondero, F; Dagnino, A; Capri, F; Jonsson, H; Oliveri, C; Gastaldi, L; Pons, G; Viarengo, A; Assessing the occurrence of a stress syndrome in marine mussels by a gene expression/biomarker combined approach Marine Environmental Research 62 S440-S441 2006 ELSEVIER SCI LTD THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, OXON, ENGLAND 0141-1136 IP 2.106 N. Cit. 1
- 53) Dondero, Francesco; Marsano, Francesco; Venier, Paola; Vergani, Laura; Franzellitti Silvia; Fabbri Elena; Viarengo, Aldo; Gene transcription profiling in pollutant exposed mussels (*Mytilus* spp.) using a new low-density oligonucleotide microarray MARINE ENVIRONMENTAL RESEARCH 62 ELSEVIER SCI LTD THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, OXON, ENGLAND S166-S167 2006 0141-1136 IP 2.106
- 54) Vergani, Laura; Lanza, Cristina; Scarabelli, Linda; Dondero, Francesco; Burlando, Bruno; Panfoli, Isabella; Marchi, Barbara; Viarengo, Aldo; Gallo, Gabriella; Interference between growth hormone and cadmium on metallothionein induction in trout hepatoma cell line RTH-149 MARINE ENVIRONMENTAL RESEARCH 62 S91-S92 2006 ELSEVIER SCI LTD THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, OXON, ENGLAND 0141-1136 IP 2.106
- 55) Viarengo, Aldo; Dondero, Francesco; Molecular ecotoxicology: From the understanding of toxicity mechanism to the application in biomonitoring programmes Toxicology Letters 164 S42-S43 2006 Elsevier 0378-4274 IP 2.784
- 56) Vergani, Laura; Grattarola, Myriam; Carloni, Mara; Borghi, Cristina; Botta, Mauro; Bracco, Chiara; Digilio, Giuseppe; Dondero, Francesco; Viarengo, Aldo; Solution structure and function analysis of the molluscan metallothionein MTI-10 versus the fish MT A MARINE ENVIRONMENTAL RESEARCH 62 S89-S89 2006 ELSEVIER SCI LTD THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, OXON, ENGLAND 0141-1136 IP 2.106

- 57) Marsano, F; Ranzato, E; Pesce, G; Boatti, L; Dondero, F; Jonsson, H; Bloomfield, G; Skelton, J; Magnelli, V; Cavaletto, M; A systems biology approach reveals Hg induced stress responses in the social amoeba *Dicystelium discoideum* MARINE ENVIRONMENTAL RESEARCH 62 S158-S159 2006 ELSEVIER SCI LTD THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, OXON, ENGLAND 0141-1136 IP 2.106
- 58) Vergani, Laura; Lanza, Cristina; Borghi, Cristina; Dondero, Francesco; Fabbri, Rita; Gallo, Gabriella; Viarengo, Aldo; Effects of oxidative stress induced by copper and hydrogen peroxide exposure in mussels MARINE ENVIRONMENTAL RESEARCH 62 S455-S456 2006 ELSEVIER SCI LTD THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, OXON, ENGLAND 0141-1136 IP 2.106
- 59) Dondero, F; Banni, M; Rebelo, M; Viarengo, A; Effects of organic chemicals on the expression of a mussel's P63/P73 orthologue gene MARINE ENVIRONMENTAL RESEARCH 62 S64-S65 2006 ELSEVIER SCI LTD THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, OXON, ENGLAND 0141-1136 IP 2.106
- 60) Caricato, R; Dondero, F; Viarengo, A; Berti, E; Lionetto, MG; Giordano, ME; Schettino, T; In vivo effects of Cd²⁺ on the digestive gland carbonic anhydrase of the *Mytilus galloprovincialis* MARINE ENVIRONMENTAL RESEARCH 62 S92-S92 2006 ELSEVIER SCI LTD THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, OXON, ENGLAND 0141-1136 IP 2.106
- 61) Dondero, Francesco; Piacentini, Luciana; Banni, Mohamed; Rebelo, Mauro; Burlando, Bruno; Viarengo, Aldo; Quantitative PCR analysis of two molluscan metallothionein genes unveils differential expression and regulation Gene 345 2 259-270 2005 Elsevier 0378-1119 IP 2.694 N. Cit. 109
- 62) Vergani, Laura; Grattarola, Myriam; Borghi, Cristina; Dondero, Francesco; Viarengo, Aldo; Fish and molluscan metallothioneins. A structural and functional comparison FEBS Journal 272 23 6014-6023 2005 Wiley Online Library 1742-464X IP 3.033 N. Cit. 32
- 63) Marchi, Barbara; Burlando, Bruno; Panfoli, Isabella; Dondero, Francesco; Viarengo, Aldo; Gallo, Gabriella; Heavy metal interference with growth hormone signalling in trout hepatoma cells RTH-149 Biometals 18 2 179-190 2005 Springer 0966-0844 IP 1.893 N. Cit. 8
- 64) M. Zorzi, A. Dagnino, F. De lucchi, F. Dondero, M. Borasi, G. Cossa, L. Ariati, P. Trivero, A. Viarengo Monitoring and risk assessment activities of exhausted rubbish dump characterized by a release of leachate in the superficial groundwater aquifer. Proceedings Sardinia 2005, Tenth International Waste Management and Landfill Symposium (S. Margherita di Pula, Cagliari, Italy, 3-7 October 2005) pp 693-694. CISA Publisher, Cagliari, Italy. Contributo in volume (atti di congresso). N. Cit. 4 (fonte Google Scholar)
- 65) Dondero, Francesco; Cavaletto, Maria; Ghezzi, Anna Rita; La Terza, Antonietta; Banni, Mohamed; Viarengo, Aldo; Biochemical characterization and quantitative gene expression analysis of the multi-stress inducible metallothionein from *Tetrahymena thermophile*. Protist 155 2 157-168 2004 Elsevier 1434-4610 IP 2.904 N. Cit. 32

- 66) Burlando, Bruno; Bonomo, Marco; Fabbri, Elena; Dondero, Francesco; Viarengo, Aldo; Hg 2+ signaling in trout hepatoma (RTH-149) cells: involvement of Ca 2+-induced Ca 2+ release Cell Calcium 34 3 285-293 2003 Elsevier 0143-4160 IP 2.781 N. Cit. 24
- 67) Vergani, Laura; Grattarola, Myriam; Dondero, Francesco; Viarengo, Aldo; Expression, purification, and characterization of metallothionein-A from rainbow trout. Protein expression and purification 27 2 338-345 2003 Elsevier 1046-592863) IP 1.470 N. Cit. 11
- 68) Burlando, Bruno; Evangelisti, Valentina; Dondero, Francesco; Pons, Giovanni; Camakaris, Jim; Viarengo, Aldo; Occurrence of Cu-ATPase in Dictyostelium: possible role in resistance to copper Biochemical and biophysical research communications 291 3 476-483 2002 Elsevier 0006-291X IP 2.935 N. Cit. 17
- 69) Ceratto, Nadia; Dondero, Francesco; van de Loo, Jan-Willem; Burlando, Bruno; Viarengo, Aldo; Cloning and sequencing of a novel metallothionein gene in Mytilus galloprovincialis Lam Comparative Biochemistry and Physiology Part C: Toxicology & Pharmacology 131 3 217-222 2002 Elsevier 1532-0456 IP 0.979 N. Cit. 21.
- 70) Viarengo, A; Burlando, B; Dondero, F; Effects of heavy metals on signal transduction and consequent toxic effects. CIESM Workshop Monographs 19 79-80 2002. CIESM editore, Monaco (Principato di Monaco) 0378-4274. Contributo in volume (atti di congresso).
- 71) Ponzano, E; Dondero, F; Bouquegneau, J-M; Sack, R; Hunziker, P; Viarengo, A; Purification and biochemical characterization of a cadmium metallothionein from the digestive gland of the Antarctic scallop Adamussium colbecki (Smith, 1902) Polar Biology 24 3 147-153 2001 Springer 0722-4060 IP 1.133 N. Cit. 11
- 72) Viarengo A, Burlando B, Dondero F, Evangelisti V, Mozzone S Sensitivity and Specificity of Metallothionein as a Biomarker for Aquatic Environment Biomonitoring. In: Biomarkers in Marine Organisms. Ph. Garrigues et al. (eds.) 2001 ELSEVIER, ISBN: 978-0-444-82913-9. Contributo in volume. N. Cit totali del volume 24
- 73) Ceratto, N; Dondero, F; Van de Loo, JW; Burlando, B; Viarengo, A; Identification of metallothionein CDNA and genomic sequences of the mytilus galloprovincialis Comparative Biochemistry and Physiology Part A: Molecular & Integrative Physiology 126 24 2000 Pergamon 1095-6433 IP 1.249
- 74) Viarengo, Aldo; Burlando, Bruno; Dondero, Francesco; Marro, Anna; Fabbri, Rita; Metallothionein as a tool in biomonitoring programmes. Biomarkers 4 6 455-466 1999 Informa UK Ltd UK 1354-750X IP 1.427 N. Cit. 120
- 75) Burlando, B; Panfoli, I; Marchi, B; Ceratto, N; Dondero, F; Viarengo, A; Effects of stressors on redox balance and calcium/tyrosine kinase-dependent cell signalling in aquatic organisms Comparative Biochemistry and

- Physiology Part A: Molecular & Integrative Physiology 124 S11
 1999 Pergamon 1095-6433 IP 0.916
- 76) Viarengo, Aldo; Ponzano, Enrica; Dondero, Francesco; Fabbri, Rita; A
 simple spectrophotometric method for metallothionein evaluation in marine
 organisms: an application to Mediterranean and Antarctic molluscs Marine
 Environmental Research 44 1 69-84 1997 Elsevier 0141-1136
 IP 1.093 N. Cit. 421
- 77) Viarengo A., Burlando B., Ponzano E., Accomando R., Mancinelli G.,
 Dondero F., Fabbri R. (1996); Redox balance and cation homeostasis systems in
 the cells of the antarctic scallop *Adamussium colbecki*. G. di Prisco, S. Focardi, P.
 Luporini (Ed.) Camerino University Press, Italy Proceedings of the Third Meeting
 on Antarctic Biology, Santa Margherita Ligure, December 13-15, 1996; pp. 183-
 191. ISBN 8887227004, 9788887227000 Contributo in volume (atti di
 congresso).
- 78) Aldo Viarengo, Rita Accomando, Elisa Bettella, Francesco Dondero, Rita
 Fabbri. (1995). Effetto degli inquinanti a livello molecolare e cellulare. Sviluppo
 di "indici di stress" per il monitoraggio dell'inquinamento marino in ecosistemi
 con caratteristiche peculiari e a rischio. Faranda F.M. (Ed.) Caratterizzazione
 ambientale marina del sistema Eolie e dei bacini limitrofi di Cefalù e Gioia
 EOCUMM94 Data rep., pp. 339-348. CONISMA
[\(http://www.conisma.it/it/pubblicazioni/data-report-eocumm/\)](http://www.conisma.it/it/pubblicazioni/data-report-eocumm/)
 Contributo in volume

Participation to national and international meetings as principal author/speaker

From 2001, Dr. Dondero participated to 73 national or international meetings (either congress or workshops) as principal author or speaker, 30 times as invited speaker. Shown is a list of scientific event from 2010 with an official invitation.

1. Francesco Dondero. Scaling up biological complexity in nanoparticle toxicity studies. International workshop: "Scientific Conference Series on Advanced Materials, Critical Raw Materials and Industrial Technologies". University of Burgos, Burgos, Spain, (scheduled) 1st February 2016.
2. Francesco Dondero. Introduction to Systems Biology. National Workshop: "Scienza, tecnologia, salute umana ed ambiente: prospettive e opportunità nell'ambito della programmazione Horizon 2020". Centro Ecotekne, Università del Salento, July 15, 2015.
3. Francesco Dondero. Cambiamenti climatici. National workshop: "Convegno Malattie Infettive Emergenti". Azienda Ospedaliera di Alessandria, 16 04 2015. Alessandria, Italy
4. Francesco Dondero. Case history Crowdfunding: Il sequenziamento del genoma del mitilo dorato (*Limnoperna fortunei*). Tavola Rotonda Istud Sul

Crowdfunding: Evoluzione nel 2015 In Italia. Fondazione Studi Istud. 26 01 2015, Milano (Italy).

5. Francesco Dondero and Peter Kille. The problem of scale and localised effects in nanoeotoxic – where can mechanistic toxicology help? .International Workshop: "Putting environmental realism into nanosafety assessment. Mechanistic toxicology of Engineered Nanoparticles (ENPs): state of the art, future perspectives and practical workshop on high-throughput molecular data. 4-7 March 2014, University of Birmingham, Birmingham, UK.

6. Francesco Dondero. Silver nanoparticle effects in tissues of the marine mollusc *Mytilus galloprovincialis*. NanoFATE and nanoTOES Open Day and Open Student Workshop. 23-25 September 2013, University of Oxford, Oxford. UK.

7. Francesco Dondero. Nanosilver effects in marine ectotherms: linking low and high informational levels. 1st Marine NanoEcotox Workshop (MANET), 29 11 2012, Palermo, Italy.

8. Francesco Dondero, Alessandro Negri, Dan Sato, Gareth Bloomfield, Robert Kay, Masaru Tomita, Al Ivens, Aldo Viarengo. Systems biology assessment of binary mixture effects in the social amoeba *Dictyostelium discoideum*. 27th Annual Congress of New European Society for Comparative Physiology and Biochemistry (ESCPBnew), 5-9 September, 2010 Alessandria (I).

International research fellow and granted project

Research Fellow

2014- 2017. Special Visitor Scientist (PVE - Pesquisador Visitante Especial). Research Fellow rilasciata mediante processo di revisione tra pari da CAPES - Coordenação de Aperfeiçoamento de Pessoal de Nível Superior. Ministry of Education, Brazil.

International and national research project (last 5 years)

2015- 2019. EU -Horizon 2020. NUMBER — 691095. NANOGENTOOLS. 48 months, Research Unit Head.

2010-2014. EU-FP7-NMP-ENV-2009: Nanoparticle Fate Assessment and Toxicity in the Environment (NANOFATE). 48 months, Research Unit Head.

2010-2013 EU-FP7-MEECE: The MEECE Project (MEECE). Staff Scientist, 36 months.

2010-2011 MIUR-PRIN: Osservazioni, analisi sperimentali e modellizzazioni per la gestione di impatti multipli nei sistemi costieri (TETRIS). Staff Scientist

International relationships

Scientific expert for:

- National Environmental Research Center (NERC), UK, 2015.
- Conselho Nacional de Desenvolvimento Científico e Tecnológico , BRAZIL, 2015.
- Agence nationale de la recherche (ANR), from 2009
- Fonds Wetenschappelijk Onderzoek – Vlaanderen- Research Foundation Flanders (FWO) Belgio, 2011

Affiliation to international clusters/Society:

- UE Nanosafety Cluster, (UE)
- EU-U.S. NanoEHS Communities of Research (CoRs)
- Society of Environmental Toxicology and Chemistry (SETAC)

Editorial Services:

- Associated Editor: Biomed Research International (section: Toxicology), Hindawi
- Special Editor: Marine Environmental Research, Elsevier
- Peer Reviewer for more than 20 international indexed journals.

Third Mission

- Former founder and scientific director of the biotech start-up Ikzus Ricerche Mare e Ambiente, Italy (2000-2010).
- Research contract with MARINE RESEARCH CENTRE FEI SYKE di Helsinki, Finlandia, 2012