



Curriculum Vitae	
Personal information	
First name(s) / Surname(s)	Stefania Squadrone
Telephone(s)	+39 011 2686415
E-mail	stefania.squadrone@izsto.it
Nationality	Italian
Date of birth	07/06/1968
Work experience	
Dates	2006 now
Occupation or position held	Assistant Biologist
Main activities and responsibilities	Food and feed official chemical controls for trace elements; analysis, method validation, staff management, research projects design and coordination, scientific writing.
Name and address of employer	Istituto Zooprofilattico Sperimentale del Piemonte, Liguria e Valle d'Aosta – Via Bologna 148, 10154 Turin, Italy - Veterinary Public Health
Dates	2006 – 2001
Occupation or position held	Assistant Biologist
Main activities and responsibilities	Official controls for GMO and veterinary diseases by molecular biology techniques; analysis, method validation, staff management, involvement in research projects, scientific writing.
Name and address of employer	Istituto Zooprofilattico Sperimentale del Piemonte, Liguria e Valle d'Aosta – Via Bologna 148, 10154 Turin, Italy - Veterinary Public Health
Dates	2001 – 1999
Occupation or position held	Researcher Biologist
Main activities and responsibilities	Research activity in molecular biology
Name and address of employer	Istituto Zooprofilattico Sperimentale del Piemonte, Liguria e Valle d'Aosta – Via Bologna 148, 10154 Turin, Italy - Veterinary Public Health
Dates	1999 - 1998
Occupation or position held	Researcher Biologist
Main activities and responsibilities	Research activity in immunology and gene therapy
Name and address of employer	TIGET, Telethon Institute for Gene Therapy; Milano, Italy
Dates	1998 - 1997
Occupation or position held	Researcher Biologist (scholarship)
Main activities and responsibilities	Research activity in immunology
Name and address of	Children Hospital, Regina Margherita, Turin, Italy

employer					
Dates	1997 - 1996				
Occupation or position held	Researcher Biologist				
Main activities and responsibilities	Research activity in screening techniques for detection of antibiotics in milk				
Name and address of employer	Istituto Zooprofilattico Sperimentale del Piemonte, Liguria e Valle d'Aosta – Via Bologna 148, 10154 Turin, Italy - Veterinary Public Health				
Dates	1996 - 1994				
Occupation or position held	Training Biologist				
Main activities and responsibilities	Training in microbiological analysis (food and water)				
Name and address of employer	Environmental Regional Agency, Turin, Italy.				
Education and training					
Dates	1988 -1994				
Title of qualification awarded	Specialization Degree in Microbiology and Virology - Turin University, Faculty of Medicine				
Level in national or international classification	70/70				
Dates	1994				
Title of qualification awarded	Admitted to the Register of Biologists - Turin University, Faculty of Science				
Dates	1993				
Title of qualification awarded	Master in environmental engineering- Turin Politecnico University				
Dates	1991-1988				
Title of qualification awarded	Master cum laude in Biology, Turin University, Faculty of Mathematical and Biological Sciences.				
Personal skills and competences					
Mother tongue(s)	Italian				
Other language(s)					
Self-assessment	Understanding		Speaking		Writing
European level (*)	Listening	Reading	Spoken interaction	Spoken production	
English	B2	C1	B1	B1	C1
French	A1	A1	A1	A1	A1
	(*) <i>Common European Framework of Reference for Languages</i>				
Technical skills and competences	The scientific interests cover the area of heavy metals and contaminants. Researches mainly focused on development of innovative analytical methods to applying in the food and feed control area. Moreover, the trace elements occurrence in marine, freshwater and terrestrial ecosystems is investigated by the use of living organisms as bioindicators of environmental health.				

**Additional
Information**

Other Qualifications (since 1995):

- participation in courses and seminars in chromatographic techniques, in separation and extraction methods for foodstuff and feed, in Laboratory Health and Safety, in spectroscopic techniques, in Quality Control (EN 45001 and ISO/IEC 17025), in molecular biology, in environmental safety.

- Chief Scientist and Coordinator of research projects financed by the Italian Health Ministry and by the Piedmont Region.

-Reviewer for:

Chemosphere, Environmental Pollution, Science of The Total Environment, Environmental Science and Pollution Research, Food Analytical Methods, Environmental Research, J Hazardous Materials, Environmental Technology, Ecotoxicology and Environmental Safety; Environmental Monitoring and Assessment, Bulletin of Environmental Contamination and Toxicology, Methods in Ecology and Evolution.

-Co-author more than 200 scientific articles, poster, presentation.

International Publications (last five years)

S. Squadrone, P. Brizio, C. Stella, M. Mantia, L. Favaro, B. Biancani, C. Da Rugna, S. Gridelli, M. C. Abete (2020). Differential bioaccumulation of trace elements and rare earth elements in muscle, kidneys and liver of the invasive Indo-Pacific Lionfish (*Pterois* spp.) from Cuba. *Biological trace elements research*

S. Squadrone, P. Brizio, M. C. Abete, A. Brusco (2020). Trace elements profile in the blood of Huntington' disease patients. *Journal of Trace Elements in Medicine and Biology* 57: 18–20

P. Pastorino, P. Brizio, M.C. Abete, M. Bertoli, A.G. Oss Noser, G. Piazza, M. Prearo, A.C. Elia, E. Pizzul, **S. Squadrone**, (2020). Macrobenthic invertebrates as tracers of rare earth elements in freshwater watercourses. *Science of the Total Environment* 698: 134-282

A. Ruo Redda, O. Abollino, M. Malandrino, **S. Squadrone**, M. C. Abete, S. Berto, R. Toniolo, F. Durbiano, A. Giacomino (2019). A Portable Setup for the Voltammetric Determination of Total Mercury in Fish with Solid and Nanostructured Gold Electrodes. *Molecules* 24: 1910

S. Squadrone, P. Brizio, L. Favaro, D. Florio, C. Da Rugna, S. Gridelli, M. C. Abete (2019). Feathers of Humboldt penguin are suitable bioindicators of Rare Earth Elements. *Science of The Total Environment* 678: 627–631.

S. Squadrone, P. Brizio, M. Mantia, C. Stella, M. Battuello, N. Nurra, R. Mussat Sartor, R. Orusa, S. Robetto, F. Brusa, P. Mogliotti, A. Garrone, M.C. Abete (2019). Rare earth elements in marine and terrestrial matrices of Northwestern Italy: Implications for food safety and human health. *Science of The Total Environment* 660:1383-1391

S. Squadrone, P. Brizio, L. Favaro, G. Todino, D. Florio, C. Da Rugna, M. C. Abete (2019). Humboldt penguins' feathers as bioindicators of metal exposure. *Science of The Total Environment* 650:1734-1739

R. Juncos, M. Arcagni, **S. Squadrone**, A. Rizzo, M. Arribére, J.P. Barriga, M.A. Battini, L.M. Campbell, P. Brizio, M.C. Abete, S. Ribeiro Guevara (2019). Interspecific differences in the bioaccumulation of arsenic of three Patagonian top predator fish: Organ distribution and arsenic speciation *Ecotoxicology and Environmental Safety*,168: 431-442

G. Esposito, D. Meloni, M. C. Abete, G. Colombero, M. Mantia, P. Pastorino, M. Prearo, A. Pais, E. Antuofermo, **S. Squadrone** (2018). The bivalve *Ruditapes decussatus*: A biomonitor of trace elements pollution in Sardinian coastal lagoons (Italy). *Environmental Pollution* 242:1720-1728

S. Squadrone, C. Stella, P. Brizio, M. C. Abete (2018). A Baseline Study of the Occurrence of Rare Earth Elements in Animal Feed. *Water Air Soil Pollut* 229:190

S. Squadrone, N. Nurra, M. Battuello, R. Mussat Sartor, C. Stella, P. Brizio, M. Mantia, D. Pessani, M. C. Abete. Trace elements, rare earth elements and inorganic arsenic in seaweeds from Giglio Island (Tyrrhenian Sea) after the Costa Concordia shipwreck and removal (2018). *Marine Pollution Bulletin*, 133: 88-95

S. Squadrone, M. C. Abete, P. Brizio, D. Pessani, L. Favaro (2018). Metals in Feathers of African Penguins (*Spheniscus demersus*): Considerations for the Welfare and Management of Seabirds Under Human Care. *Bulletin of Environmental Contamination and Toxicology*, 100 (4): 465–471.

S. Squadrone, P. Brizio, C. Mancini, M. C. Abete, A. Brusco (2018). Altered homeostasis of trace elements in the blood of SCA2 patients. *Journal of Trace Elements in Medicine and Biology* 47

S. Squadrone, M. C. Abete, M. Rizzi, G. Monaco, L. Favaro (2018). Bioaccumulation of Trace and Non-trace Elements in Blood and Fibers of Alpacas (*Vicugna pacos*) that Graze in Italian Pastures. *Water Air Soil Pollut.* 229:41

A. Benedetto, C. Bocca, P. Brizio, S. Cannito, M. C. Abete, **S. Squadrone** (2018). Effects of the rare elements lanthanum and cerium on the growth of colorectal and hepatic cancer cell lines. *Toxicology in Vitro* 46:9-18.

S. Squadrone, P. Brizio, M. Battuello, N. Nurra, R. Mussat Sartor, A. Riva, M. Staiti, A. Benedetto, D. Pessani, M. C. Abete (2018). Trace metal occurrence in Mediterranean seaweeds. *Environmental Science and Pollution Research April 2018, Volume 25, Issue 10, pp 9708–9721*

M. Battuello, N. Nurra, P. Brizio, R. Mussat Sartor, D. Pessani, C. Stella, M. C. Abete, **S. Squadrone (2018)**. The isopod *Eurydice spinigera* and the chaetognath *Flaccisagitta enflata*: How habitat affects bioaccumulation of metals in predaceous marine invertebrates. *Ecological Indicators* 84 (2018) 152–16

M. Battuello, R. Mussat Sartor, P. Brizio, N. Nurra, D. Pessani, M.C. Abete, **S. Squadrone (2017)**. The influence of feeding strategies on trace element bioaccumulation in copepods (Calanoida). *Ecological Indicators* 74: 331-320.

A. Giacomino, A. Ruo Redda, **S. Squadrone**, M. Rizzi, M. C. Abete, C. La Gioia, R. Toniolo, O. Abollino, M. Malandrino (2017). Anodic stripping voltammetry with gold electrodes as an alternative method for the routine determination of mercury in fish. Comparison with spectroscopic approaches. *Food Chemistry*, 221: 737-745

M. Battuello, N. Nurra, P. Brizio, R. Mussat Sartor, D. Pessani, M.C. Abete, **S. Squadrone (2017)**. The isopod *Eurydice spinigera* and the chaetognath *Flaccisagitta enflata*: How habitat affects bioaccumulation of metals in predaceous marine invertebrates). *Ecological Indicators* 74: In press 2018

E.A.V. Burioli, **S. Squadrone**, C. Stella, C. Foglini, M.C. Abete, M. Prearo (2017). Trace element occurrence in the Pacific oyster *Crassostrea gigas* from coastal marine ecosystems in Italy. 0.1016/j.chemosphere.2017.08.102

S. Squadrone, P. Brizio, M. Battuello, N. Nurra, R. Mussat Sartor, A. Benedetto, D. Pessani, M.C. Abete (2017). A first report of rare earth elements in northwestern Mediterranean seaweeds. *Marine Pollution Bulletin* 122 2017;236-242.

Stefania Squadrone, Marino Prearo, Riccardo Nespoli, Tommaso Scanzio, Maria Cesarina Abete (2016). PCDD/Fs, DL-PCBs and NDL-PCBs in European catfish from a northern Italian lake: the contribution of an alien species to human exposure. *Ecotoxicology and Environmental Safety*: 125: 170–175

Marco Battuello, Paola Brizio, Rocco Mussat Sartor, Nicola Nurra, Daniela Pessani, Maria Cesarina Abete, **Stefania Squadrone (2016)**. Zooplankton from a North Western Mediterranean area as a model of metal transfer in a marine environment” *Ecological Indicators*, 66: 440-451

Stefania Squadrone, Erika Burioli, Gabriella Monaco, Mawazo K. Koya Marino Prearo, Silvia Gennero, Andrea Dominici, Maria Cesarina Abete (2016).” Human exposure to metals due to consumption of fish from an artificial lake basin close to an active mining area in Katanga (D.R. Congo)” *Science of the Total Environment* 568: 679-684

Stefania Squadrone, Paola Brizio, Caterina Stella, Marino Prearo,

Paolo Pastorino, Laura Serracca, Carlo Ercolini, Maria Cesarina Abete (2016). Presence of trace metals in aquaculture marine ecosystems of the Northwestern Mediterranean Sea (Italy) *Environmental Pollutions*, 215: 77-83

A. Benedetto, P. Brizio, **S. Squadrone**, T. Scanzio, M. Righetti, L. Gasco, M. Prearo, M.C. Abete (2016). Oxidative stress related to chlorpyrifos exposure in rainbow trout: Acute and medium-term effects on genetic biomarkers. *Pesticide Biochemistry and Physiology* 129: 63-69

Ciccotelli V., Abete M.C., **Squadrone S.**, (2016). PFOS and PFOA in cereals and fish: Development and validation of a high performance liquid chromatography-tandem mass spectrometry method. *Food Control*, 59: 46-52

Stefania Squadrone, Maria Cesarina Abete, Paola Brizio, Gabriella Monaco, Silvia Colussi, Cristina Biolatti, Paola Modesto, Pier Luigi Acutis, Daniela Pessani, Livio Favaro (2016). Sex- and age-related variation in metal content of penguin feathers. *Ecotoxicology* 25(2):431-8

S. Squadrone, P. Brizio, R. Nespoli, C. Stella, M.C. Abete (2015). Human dietary exposure and levels of polychlorinated dibenzodioxins (PCDDs), polychlorinated dibenzofurans (PCDFs), dioxin-like polychlorinated biphenyls (DL-PCBs) and non-dioxin-like polychlorinated biphenyls (NDL-PCBs) in free-range eggs close to a secondary aluminum smelter, Northern Italy. *Environmental Pollution, Volume 206: 429-436*

Squadrone S., Brizio P., Mancini C., Pozzi E., Cavaliere S., Abete M.C., Brusco A., (2015). Blood metal levels and related antioxidant enzyme activities in patients with ataxia telangiectasia. *Neurobiology of Disease* 81: 162-167.

Stefania Squadrone, Cecilia Mancini, Alfredo Brusco (2015). Down regulation of antioxidant enzymes in SCA28. *European Journal of Human Genetics* 6/2015

Squadrone S, Ciccotelli V, Prearo M, Favaro L, Scanzio T, Fogliani C, Abete MC. (2015). Perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA): emerging contaminants of increasing concern in fish from Lake Varese, Italy. *Environmental Monitoring and Assessment* 187(7):4686

Benedetto A, Guaraldo P, Manzini L, Spalenza V, Nebbia C, Cappa C, **S. Squadrone**, Abete MC (2015). Comparison of polychlorinated dibenzo-dioxin/furans and dioxin like PCBs profiles in sheep and bovine liver sampled in Piedmont Region. International Congress of EAVPT 2015, Nantes (France), July 19-22, 2015, Abstract pubblicato su *J. of Veterinary Pharmacology and Therapeutics*, vol. 38, Suppl.1

S. Squadrone, P. Brizio, E. Chiaravalle, M.C. Abete (2015). Sperm whales (*Physeter macrocephalus*) found stranded along the Adriatic coast (Southern Italy, Mediterranean Sea) as bioindicators of essential and non-essential trace elements in the environment. *Ecological Indicators*, 58:418-425

S. Squadrone, E. Chiaravalle, S. Gavinelli, G. Monaco, M. Rizzi, M.C. Abete (2015). Analysis of mercury and methylmercury concentrations, and selenium:mercury molar ratios for a toxicological assessment of sperm whales (*Physeter macrocephalus*) in the most recent stranding event along the Adriatic coast (Southern Italy, Mediterranean Sea). *Chemosphere*, 138:633-641

Stefania Squadrone, Daniela Marchis, Andrea Loria, Giuseppina Amato, Gianluca Ferro, Maria Cesarina Abete (2015). Detection of banned antibacterial growth promoter in animal feed by enzyme-linked immunosorbent assay: Method validation according to the Commission Decision 2002/657/EC criteria. *Food Control* 47:66-70

Stefania Squadrone, Alessandro Benedetto, Paola Brizio, Marino Prearo, Maria Cesarina Abete (2015) Mercury and selenium in European catfish (*Silurus glanis*) from Northern Italian Rivers: Can molar ratio be a predictive factor for mercury toxicity in a top predator? *Chemosphere* 119:24-30

Stefania Squadrone, Walter Mignone, Maria Cesarina Abete, Livio Favaro, Tommaso Scanzio, Claudio Foglini, Barbara Vivaldi, Marino Prearo, (2015). Non-dioxin-like polychlorinated biphenyls (NDL-PCBs) in eel, trout and barbel from the River Roya, Northern Italy. *Food Chemistry* 175:10-15

Stefania Squadrone, Livio Favaro, Maria Cesarina Abete, Barbara Vivaldi, Marino Prearo (2014). Polycyclic aromatic hydrocarbon levels in European catfish from the upper Po River basin. *Environmental Monitoring and Assessment* 186:2313–2320

S. Squadrone, V. Ciccotelli, L. Favaro, T. Scanzio, M. Prearo, M.C. Abete (2014). Fish consumption as a source of human exposure to perfluorinated alkyl substances in Italy: Analysis of two edible fish from Lake Maggiore. *Chemosphere* 114:181–186.

Sigfrido Cannarsa, Maria Cesarina Abete, Mauro Zanardi, **Stefania Squadrone** (2014) Polycyclic aromatic hydrocarbons (PAH) in marine sediment of the northwestern Mediterranean Sea (Italy). *Black Sea/Mediterranean Environment*.20(2):137-141

Stefania Squadrone, Cecilia Mancini, Elisa Giorgio, Elisa Pozzi, Simona Cavaliere, Eleonora Di Gregorio, Maria Cesarina Abete, Alfredo Brusco (2014) Article: Metal levels in blood as biomarkers for ataxias *European journal of human genetics: EJHG* 05/2014

	<p>Mauro Giammarino, <u>Piero Quatto</u>, Stefania Squadrone, <u>Maria Cesarina Abete</u> (2014). The Hooded Crow (<i>Corvus cornix</i>) as an Environmental Bioindicator Species of Heavy Metal Contamination. <u><i>Bulletin of Environmental Contamination and Toxicology</i></u></p>
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