

Gianfranco Santovito

Place and date of birth: **Manfredonia (FG), 24/11/1965**

Degrees: **Master in Biological Sciences**

(12/07/1990)

Department of Biology, University of Padova

PhD in Evolutionary Biology

(04/07/1997)

Department of Biology, University of Padova,

Present position: **Assistant Professor in Physiology**

(since 01/10/2002)

Department of Biology, University of Padova

Previous academic positions: **Graduated Technician**

(01/10/1996 – 30/09/2002)

Department of Biology, University of Padova

Fellowships: **Research Fellowship**

(01/02/1991 – 31/01/1992)

Department of Biology, University of Padova, Italy

Awards:

2011 – Antarctica Service Medal and Certificate from the US National Science Foundation (NSF).

1994 – PhD Fellowship (three years) granted by the Italian Ministry of University and Research

1993 – Research Fellowship (one year) granted by Venetian Lagoon System Project



Research interests:

Physiological responses of animals and microorganisms against environmental conditions that induce oxidative stress risk.

Molecular evolution of proteins involved in antioxidant defence system.

Innovative didactic approaches to the teaching of Biology in school.

National and International Research Projects:

1989 – Sistema Lagunare Veneziano Project grant – Title: Studies on ecotoxicological and biological effect of inorganic (metals) and organic pollutants in the Venice lagoon system. (Member)

1996 – Italian Ministry of University and Research, PNRA grant – Title: Ecophysiological and ecotoxicological researchs applied to the study of natural and anthropic changes occurring in the Antarctic environment. (Member)

1996 – Italian Ministry of University and Research, PRIN grant – Title: The effect of anthropic impact in northern Adriatic coastal and lagoon environments, with attention to economic aspects. (Member)

1998 – Italian Ministry of University and Research, PNRA grant – Title: Ecophysiological and ecotoxicological researchs applied to the study of natural and anthropic changes occurring in the Antarctic environment. (Member)

2000 – Italian Ministry of University and Research, PRIN grant – Title: Development of an "expert" system for the definition of stress degree of a "sentinel" organism (*Mytilus* sp.) based on the values of superoxide dismutase, catalase and glutathione peroxidase biomarkers. (Member)

2000 – Italian Ministry of University and Research, PNRA grant – Ecophysiological and ecotoxicological researchs applied to the study of natural and anthropic changes occurring in the Antarctic environment. (Member)

2002 – Italian Ministry of University and Research, PRIN grant – Metallothionein of ciliates: structural and functional studies in evolutionary and ecotoxicological perspectives. (Member)

2002 – Italian Ministry of University and Research, PNRA grant – Use of bioindicators in the assessment of natural or anthropic changes occurring in the Antarctic environment. (Member)

2004 – Italian Ministry of University and Research, PNRA grant – Use of bioindicators in the assessment of natural or anthropic changes occurring in the Antarctic ecosystems. (Member)

2004 – Italian Ministry of University and Research, PNRA grant – Antarctic ciliated protozoa and marine invertebrates: evolutionary biology, adaptive responses and applicative potential. (Member)

2006 – Italian Ministry of University and Research, PNRA grant – Ciliated protozoa as sentinel organisms of natural or anthropic changes occurring in the Antarctic environment. (Member)

2008 – University of Padova, Institutional Program (PRAT) grant – The metallothionein gene promoters in the model organism *Tetrahymena thermophila*: effective tools for recombinant protein expression. (Member)

2009 – Italian Ministry of University and Research, PNRA grant – Ciliates and diatoms from polar waters: biodiversity, evolution and applicative potential of their natural products. (Research Unit Leader)

2010 – University of Padova, Institutional Program (PRAT) grant – Oxidative damage and cell aging: study on antioxidant mechanisms in ciliated protozoa. (Principal Investigator)

2013 – Italian Ministry of University and Research, PNRA grant – Response to thermal stress in Antarctic nototenoids: an integrated molecular approach to study the effect of the temperature rise in *Trematomus bernacchii* and *Chionodraco hamatus*. (Member)

2016 – Italian Ministry of University and Research, PNRA grant – How key components of the coastal Antarctic food web respond to global change: an “omic” Approach. (Member)

2016 – Italian Ministry of University and Research, PNRA grant – Journey to the cold and back: comparative genomics and transcriptomics in Antarctic and sub-Antarctic notothenioids. (Member)

2017 – European Commission, LIFE Programme – Perfluorinated compounds holistic environmental interinstitutional experience (Research Unit Leader)

Organization of scientific meetings

2012 – Study Congress. The Disciplinary Didactics in University Training of Teachers: the challenge of learning, Padova, Italy. Scientific Committee member

2014 – 30th Congress of the Italian Society of Protistologists, Padova, Italy. Scientific Committee member

2018 – 1st Conference of the Master Degree Course in Primary Education with schools. The Partnership between University and Schools. Padova, Italy. Scientific Committee member

Commissions of trust

2008 – Review panel member of the Free Radical Biology & Medicine, Elsevier

2013 – Review panel member of the Aquatic Toxicology, Elsevier

2017 – Editorial board member of the International Journal of Fisheries Science and Research, SM Group

2017 – Editorial board member of the Journal of Marine Microbiology, Pulsus

Reviewer for the following scientific journals:

Chemosphere

Comparative Biochemistry and Physiology

Current Biotechnology
Ecotoxicology and Environmental safety
Environmental Pollution
Fish and Shellfish Immunology
Fish Physiology and Biochemistry
Gene
International Journal of Fisheries and Aquaculture
Italian journal of Zoology
Journal of Cellular Biochemistry, Marine Genomics
Journal of Toxicology and Environmental Health Sciences
Marine Biotechnology
Marine Genomics
Molecular Biology Reports
Process Biochemistry
Protist
Science of Total Environment
Turkish journal of Biology
Walailak Journal of Science and Technology

Teaching activity

From 2002 to 2014 Laboratory of Life Sciences (Master course)
From 2003 to 2008 Cellular Physiology and Enzymology (Bachelor course)
From 2004 to 2008 Comparative Physiology of Animal Organisms (Bachelor course)
From 2006 to 2007 Insights of Cytology, Genetics and Molecular Biology (Graduate School course)
From 2007 to 2009 and from 2010 to 2011 Comparative Animal Physiology (Master course)
From 2007 to 2008 and from 2013 to 2014 Didactics of Life Sciences (Master course)
From 2008 to 2010 General and Comparative Animal Physiology (Bachelor course)
From 2008 to 2014 Life Sciences (Bachelor course)
From 2009 to 2010 Physiology of Marine Organisms (Bachelor course)

From 2011 to 2016 Comparative Physiology (Master course)

From 2012 to 2013 and from 2014 to 2015 Didactics of Life Sciences and Laboratory (Graduate School course)

From 2013 to 2016 Didactics and Laboratory of Life Sciences (Graduate School course)

From 2014 to 2015 Human Anatomy and Pathophysiology (Bachelor course).

Since 2015 Didactics of Biology (Master course)

Since 2016 Adaptive Strategies of Marine Animals (Master course)

From 2016 to 2017 Environmental Education (Master course)

Since 2016 Biological Responses to Climate Change (Master course)

Since 2017 Biology, Physiology and Anatomy (Bachelor course)

Supervision of graduate students

From 2002 – 6 PhD students – Department of Biology, University of Padova, Italy

From 2006 – 24 Master students – Department of Biology, University of Padova, Italy

From 2012 – 28 Master students – Department of Philosophy, Sociology, Education and Applied Psychology, University of Padova, Italy

From 2013 – 1 PhD student – Institute for Evolution and Biodiversity, University of Münster, Germany.

Institutional responsibilities

Since 2008 – Member of the Board for the Department of Biology as Representative of Assistant Professors – University of Padova, Italy

From 2009 to 2012 – Member of the Tutoring Commission of the course of studies in Biology – University of Padova, Italy

From 2009 to 2012 – Coordinator of the Orientation Commission of the course of studies in Biology – University of Padova, Italy

From 2010 to 2013 – Responsible for use of didactic rooms of the Vallisneri Interdepartmental Building – University of Padova, Italy

Since 2010 – Coordinator of the Commission for the Lesson Timetables of the Department of Biology – University of Padova, Italy

Since 2012 – Member of the Spaces Commission for the Department of Biology – University of Padova, Italy

Since 2014 – Responsible for use of didactic rooms of the Biology and Biomedicine Building – University of Padova, Italy

Since 2015 – President of the Active Training Internship Course (TFA) for the A059 class (Mathematical, Chemical, Physical and Natural Sciences in the First Degree of Secondary School) – University of Padova, Italy

Since 2017 – Member of the University Support Committee for Teacher Education – University of Padova, Italy

Memberships of scientific societies

Since 2001 – Member of the Unione Zoologica Italiana

Since 2003 – Member of the Italian Society of Physiology

Since 2012 – Member of the Italian Association of Developmental and Comparative Immunobiology

Since 2013 – Member of the Italian Society of Protistologists; Governing Council member since 2015

Since 2015 – Member of the International Society of Protistologists

Major Italian and international collaborations

Rigers Bakiu, Phylogenetic approaches to molecular evolution studies of stress proteins, Agricultural University of Tirana, Albania

Theodore G. Clark, Biotechnological applications using *Tetrahymena thermophila* as model organism, Cornell University, USA

Diana Ferro, Antioxidant responses of organisms to environmental stress, University of Arizona, USA

Marco Gerdol, Genetic characterization of marine animals, University of Trieste, Italy

Joachim Kurtz, Immune system related antioxidant responses of *Tribolium castaneum*, Westfälische Wilhelms-Universität, Germany

Pierangelo Luporini, Stress recovery in ciliated protozoa, University of Camerino, Italy

Cristina Miceli, Genomics of ciliated protozoa, University of Camerino, Italy

Tomaso Patarnello, Genetics of Antarctic marine animals, University of Padova, Italy

Daniela Pellegrino, Heart physiology of Antarctic fish, University of Calabria, Italy

Sean P. Place, Gene expression studies in Antarctic fish, Sonoma State University, USA

Giuseppe Scapigliati, Immunology of Antarctic fish, Tuscia University, Italy

Kathryn Schuller, Biochemistry and molecular biology of peroxiredoxins, Flinders University, Australia

Adriana Vallesi, Stress recovery in ciliated protozoa, University of Camerino, Italy

LIST OF PUBLICATIONS

Full papers in journals with impact factor

1. Piccinni E., Bertaggia D., **Santovito G.**, Miceli C., Kraev A. (1999). Cadmium metallothionein gene of *Tetrahymena pyriformis*. *Gene*, 234, 51-59.
2. **Santovito G.***, Irato P., Piccinni E., Albergoni V. (2000). Relationship between metallothionein and metal contents in red-blooded and white-blooded Antarctic teleosts. *Polar Biol.*, 23, 383-391.
3. Albergoni V., Cassini A., Coppellotti O., Favero M., Favero N., Irato P., Piccinni E., **Santovito G.** (2000). Physiological responses to heavy metal and adaptation to increase oxygen partial pressure in Antarctic fish and protozoa. *It. J. Zool.*, 67, 1-11.
4. Manzano M., Cocolin L., Citterio B., Conte L., De Bertoldi M., Comi G., Beltramini M., **Santovito G.**, Salvato B. (2000). Biochemical responses in a *Candida famata* strain adapted to high copper concentrations. *Biometals*, 13, 251-259.
5. **Santovito G.**, Irato P., Piccinni E. (2000). Regulation of metallothionein in *Tetrahymena*: induction of MT-mRNA and protein by cadmium exposure. *Eur. J. Protistol.*, 36, 437-442.
6. Irato P., **Santovito G.**, Piccinni E., Albergoni V. (2001) Oxidative burst and metallothionein as a scavenger in macrophages. *Immunol. Cell Biol.*, 79, 251-254.
7. **Santovito G.**, Irato P., Palermo S., Boldrin F., Sack R., Hunziker P., Piccinni E. (2001) Identification, cloning and characterisation of a novel copper- metallothionein in *Tetrahymena pigmentosa*. Sequencing of cDNA and expression. *Protist*, 152, 203-213.
8. **Santovito G.**, Salvato B., Manzano M., Beltramini M. (2002). Copper adaptation and methylotrophic metabolism in *Candida boidinii*. *Yeast*, 19, 631-640.
9. Boldrin F., **Santovito G.**, Irato P., Piccinni E. (2002) Metal interaction and regulation of *Tetrahymena pigmentosa* metallothionein genes. *Protist*, 153, 283-291.
10. Irato P., **Santovito G.**, Cassini A., Piccinni E., Albergoni V. (2003) Metal accumulation and binding protein induction in *Mytilus galloprovincialis*, *Tapes philippinarum* and *Scapharca inaequivalvis* from Lagoon of Venice. *Arch. Environ. Contam. Toxicol.*, 44, 476-484.

11. Boldrin F.e, **Santovito G.e**, Negrisolo E., Piccinni E. (2003) Cloning and sequencing of four new metallothionein genes from *Tetrahymena thermophila* and *T. pigmentosa*: evolutionary relationships in *Tetrahymena* MT family. *Protist*, 154, 431-442.
12. Corsi I., Bonacci S., **Santovito G.**, Chiantore M., Castagnolo L., Focardi S. (2004) Cholinesterase activities in the Antarctic scallop *Adamussium colbecki*: tissue expression and effect of ZnCl₂ exposure. *Mar. Environ. Res.*, 58, 401-406.
13. Corsi I., Bonacci S., **Santovito G.**, Chiantore M., Castagnolo L., Focardi S. (2004) Preliminary investigation on cholinesterases activity in *Adamussium colbecki* from Terranova Bay: field and laboratory study. *Chem. Ecol.*, 20, 79-87.
14. Santon A., Albergoni V., **Santovito G.**, Sturniolo G. C., Irato P. (2004) Relationship between MT and Zn in the protection against DNA damage in Zn-treated LEC rat liver. *Eur. J. Histochem.*, 49, 317-321.
15. **Santovito G.***, Piccinni E., Cassini A., Irato P., Albergoni V. (2005) Antioxidant responses of the Mediterranean Mussel, *Mytilus galloprovincialis*, to environmental variability in dissolved oxygen. *Comp. Biochem. Physiol. C*, 140, 321-329.
16. Boldrin F., **Santovito G.**, Clark T.G., Wloga D., Gaertig J., Piccinni E. (2006) Metallothionein gene from *Tetrahymena thermophila* with a copper inducible-repressible promoter. *Euk. Cell*, 5, 422-425.
17. **Santovito G.***, Cassini A., Piccinni E. (2006) Cu,Zn SOD from *Trematomus bernacchii*: molecular properties and evolution. *Comp. Biochem. Physiol. C*, 143, 444-454.
18. **Santovito G.***, Formigari A., Boldrin F., Piccinni E. (2007) Molecular and functional evolution of *Tetrahymena* metallothioneins: new insights into the gene family of *Tetrahymena thermophila*. *Comp. Biochem. Physiol. C*, 144, 391-397.
19. Irato P., Piccinni E., Cassini A., **Santovito G.** (2007) Antioxidant responses to variations in dissolved oxygen of *Scapharca inaequivalvis* and *Tapes philippinarum*, two bivalve species from the lagoon of Venice. *Mar. Poll. Bull.*, 54, 1020-1030.
20. Boldrin F., **Santovito G.**, Formigari A., Bisharyan Y., Cassidy-Hanley D., Clark T.G., Piccinni E. (2008) MTT2, a copper-inducible metallothionein gene from *Tetrahymena thermophila*. *Comp. Biochem. Physiol. C*, 147, 232-240.
21. Formigari A., Boldrin F., **Santovito G.**, Cassidy-Hanley D., Clark T.G., Piccinni E. (2010) Functional characterization of the 5'-upstream region of MTT5 gene from *Tetrahymena thermophila*. *Protist*, 161, 71-77.
22. **Santovito G.**, Piccinni E., Boldrin F., Irato P. (2012) Comparative study on metal homeostasis and detoxification in two Antarctic teleosts. *Comp. Biochem. Physiol. C*, 155, 580-586.
23. Franchi N., Ferro D., Ballarin L., **Santovito G.** (2012) Expression of genes involved in glutathione biosynthesis in the solitary tunicate *Ciona intestinalis* exposed to heavy metals. *Aquat. Toxicol.*, 114-115, 14-22.
24. **Santovito G.**, Marino S., Sattin G., Cappellini R., Bubacco L., Beltramini M. (2012) Cloning and characterization of cytoplasmic carbonic anhydrase from gills of four Antarctic fish: insights into the evolution of fish carbonic anhydrase and cold adaptation. *Polar Biol.*, 35, 1587-1600.

25. Ferro D., Franchi N., Mangano V., Bakiu R., Cammarata M., Parrinello N., **Santovito G.***, Ballarin L. (2013) Characterization and metal-induced gene transcription of two new copper zinc superoxide dismutases in the solitary ascidian *Ciona intestinalis*. *Aquat. Toxicol.*, 140-141, 369-379.
26. Franchi N., Piccinni E., Ferro D., Basso G., Spolaore B., **Santovito G.***, Ballarin L. (2014) Characterization and transcription studies of a phytochelatin synthase gene from the solitary tunicate *Ciona intestinalis* exposed to cadmium and in relation to cell proliferation. *Aquat. Toxicol.*, 152C, 47-56.
27. Ferro D., Bakiu R., De Pittà C., Boldrin F., Cattalini F., Pucciarelli S., Miceli C., **Santovito G.*** (2015) Cu,Zn superoxide dismutases from *Tetrahymena thermophila*: molecular evolution and gene expression of the first line of antioxidant defenses. *Protist*, 166, 131-145.
28. Bakiu R., Korro K., **Santovito G.** (2015) Positive selection effects on the biochemical properties of mammal pyroglutamylated RFamide peptide receptor (QRFPR). *It. J. Zool.*, 82, 309-326.
29. **Santovito G.**, Boldrin F., Irato P. (2015) Metal and metallothionein distribution in different tissues of the Mediterranean clam *Venerupis philippinarum* during copper treatment and detoxification. *Comp. Biochem. Physiol. C*, 174-175, 46-53.
30. Bakiu R., **Santovito G.** (2015) New insights into the molecular evolution of Metazoan Peroxiredoxins. *Acta Zool. Bulg.*, 67, 305-317.
31. Sattin G., Bakiu R., Tolomeo A.M., Carraro A., Coppola D., Ferro D., Patarnello T., **Santovito G.** (2015) Characterization and expression of a new cytoplasmic glutathione peroxidase 1 gene in the Antarctic fish *Trematomus bernacchii*. *Hydrobiologia*, 761, 363-372.
32. Bakiu R., Tolomeo A.M., **Santovito G.** (2015) Positive selection effects on the biochemical properties of fish pyroglutamylated RFamide peptide receptor (QRFPR). *It. J. Zool.*, 82, 460-472.
33. Tolomeo A.M., Carraro A., Bakiu R., Toppo S., Place S.P., Ferro D., **Santovito G.*** (2016) Peroxiredoxin 6 from the Antarctic emerald rockcod: molecular characterization of its response to warming. *J. Comp. Physiol. B*, 186, 59-71.
34. Ferro K., Ferro D., Corrà F., Bakiu R., **Santovito G.^e**, Kurtz J.^e (2017) Cu,Zn SOD genes in *Tribolium castaneum*: evolution, molecular characterisation and gene expression during immune priming. *Front. Immunol.*, 8: 1811.
35. Ferro D., Franchi N., Bakiu R., Ballarin L., **Santovito G.** (2018) Molecular characterization and metal induced gene expression of the novel glutathione peroxidase 7 from the chordate invertebrate *Ciona robusta*. *Comp. Biochem. Physiol. C*, 205, 1-7.

* corresponding author

^e equally contributed

Books

1. Poli A., Fabbri E., Agnisola C., Calamita G., **Santovito G.**, Verri T. (2014) *Fisiologia Animale*, EdiSES, Napoli. ISBN 987-88-7959-817-0
2. **Santovito G.** (2015) *Insegnare la biologia ai bambini. Dalla scuola dell'infanzia al primo ciclo d'istruzione*, Carocci, Roma. ISBN 978-88-430-7837-0
3. Poli A., Fabbri E., Agnisola C., Calamita G., **Santovito G.**, Verri T. (2017) *Fisiologia Animale*, Seconda Edizione, EdiSES, Napoli, in press

Full papers in international books and journals without impact factor

1. Irato P., Cassini A., **Santovito G.**, Cattalini F., Albergoni V. (2001) Metallothionein and glutathione as stress indicators in bivalves in the Lagoon of Venice. In: "Mediterranean ecosystems: structures and processes" (Faranda F.M., Guglielmo L., Spezie G. eds.), Springer Verlag Italia, Chapter 11, pp. 85-89.
2. Albergoni V., Cassini A., Irato P., **Santovito G.** (2002) Valutazione di parametri ecotossicologici in molluschi della laguna di Venezia: metallothioneine, glutathione ed enzimi antiossidanti. *Biol. Mar. Medit.*, 8, 497-503.
3. **Santovito G.**, Irato P., Piccinni E., Albergoni V. (2006). Physiological responses against copper-induced oxidative stress in Antarctic teleosts *Trematomus bernacchii* and *Trematomus newnesi*. In Luporini P., Morbidoni M. (Eds), *Proceedings of the fifth PNRA meeting on Antarctic biology*. Polarnet Coordinating Unit, Rome, Italy, pp. 166-170.
4. **Santovito G.**, Piccinni E., Irato P. (2008) An Improved method for rapid determination of the reduced and oxidized states of metallothioneins in biological samples. In Hofer T.N. (Ed), *Marine Pollution: New Research*, Nova Science Publishers Inc., New York, USA, Ch. 3, pp. 101-123.
5. Filippin L., Tonon E., Forte V., Zottini M., **Santovito G.**, Borgo M, Angelini E. (2009) Genetic polymorphism of stolbur phytoplasma in grapevine, wild plants and insects. *Le progrès Agricoles et Viticoles, hors série, spécial Congrès ICVG*, 139-140.
6. Camerin M., Soncin M., Piccinni E., Irato P., Boldrin F., Guidolin L., Jori G, **Santovito G.** (2011) Gene expression profile in murine 3T3 fibroblasts photosensitised by a tetracationic porphyrin. *For Immunopathol Dis Therap* 2, 227-236.
7. Bakiu R., **Santovito G.**, Hoda A., Shehu J., Durmishaj S., Irato P., Piccinni E. (2013) Metallothionein (MT): a good biomarker in marine sentinel species like sea bream (*Sparus aurata*). *Albanian J. Agric. Sci.*, 12, 247-253.
8. Gaiotto A., Tonon S., **Santovito G.** (2013) The scientific method in the teaching of life sciences in primary school. The plants and their seasonal changes. *EDULEARN13 Proceedings, IATED, Valencia*, ISBN: 978-84-616-3822-2, pp. 4226-4235.
9. Tonon S., Gaiotto A., **Santovito G.** (2013) The active teaching of life sciences in primary school: a comparative approach to the musculoskeletal system *EDULEARN13 Proceedings, IATED, Valencia*, ISBN: 978-84-616-3822-2, pp. 4289-4298.

10. Zandonella Necca I., Tamino G., **Santovito G.** (2014) Sustainable food: an educational proposal, for key stage 3 in secondary schools, based on the assessment for learning method. EDULEARN14 Proceedings, IATED, Valencia, ISBN: 978-84-617-0557-3, pp 7348-7356.
11. Pavan C., **Santovito G.** (2014) The laboratory didactics in the teaching -learning processes of life sciences. an educational project on microorganisms in the alimentation in primary school. EDULEARN14 Proceedings, IATED, Valencia, ISBN: 978-84-617-0557-3, pp 7546-7555.
12. Trevisan T., **Santovito G.** (2015) Teaching evolution: a laboratory approach. EDULEARN15 Proceedings, IATED, Valencia, ISBN: 978-84-606-8243-1, pp 2234-2244.
13. Toninato V., **Santovito G.** (2015) The laboratory didactics in the teaching-learning processes of life sciences. an educational project on the structure of the flower and the inflorescences phenomenon in primary school. EDULEARN15 Proceedings, IATED, Valencia, ISBN: 978-84-606-8243-1, pp 2245-2254.
14. Gaiotto A., **Santovito G.** (2016) An innovative didactic approach to the study of invertebrate animals in primary school. EDULEARN16 Proceedings, IATED, Valencia, ISBN: 978-84-608-8860-4, pp 1410-1418.
15. Rossi E., **Santovito G.** (2016) Introduction to Mendelian genetics in primary school. EDULEARN16 Proceedings, IATED, Valencia, ISBN: 978-84-608-8860-4, pp 1374-1382.
16. Lago A., Masiero S., Bramuzzo S., Callegaro E., Poloni E., Corrà F., **Santovito G.** (2017) Exploring microbiology and biotechnologies: a laboratory approach to the study of yeasts and bacteria in primary school. INTED2017 Proceedings, IATED, Valencia, ISBN: 978-84-617-8491-2, pp 4110-4120.
17. Capparotto A., Bramuzzo S., Callegaro E., Poloni E., Corrà F., **Santovito G.** (2017) The didactics of biology in primary school: an innovative approach to skeletal system teaching in fifth class based on comparative vertebrate anatomy. INTED2017 Proceedings, IATED, Valencia, ISBN: 978-84-617-8491-2, pp 3831-3839.
18. Ricci F., Lauro F.M., Grzymiski J.J., Read R., Bakiu R., **Santovito G.**, Luporini P., Vallesi A. (2017) The anti-oxidant defense system of the marine polar ciliate *Euplotes nobilii*: characterization of the msrB gene family. *Biology*, 6, 4.
19. Favaron A., Ancona E., Bramuzzo S., Callegaro E., Guidolin L., Irato P., **Santovito G.** (2017) An innovative teaching approach to circulatory and skeletal systems based on comparative vertebrate anatomy and physiology. EDULEARN17 Proceedings, IATED, Valencia, ISBN: 978-84-697-3777-4, pp 60-67.
20. Meneghetti G, Bramuzzo S., Callegaro E., Guidolin L., Irato P., **Santovito G.** (2017) The kingdom of fungi in primary school: an educational research in biology field. EDULEARN17 Proceedings, IATED, Valencia, ISBN: 978-84-697-3777-4, pp 102-110.
21. **Santovito G.** (2017) New frontiers in the microbiological research of extreme marine environments: the antioxidant system of Antarctic protozoa. *J. Mar. Microbiol.*, 1, 1-2.
22. Grando G., Bramuzzo S., Irato P., Guidolin L., Ferrari L., **Santovito G.** (2018) Introduction to the world of insects: a didactic research in kindergarten. INTED2018 Proceedings, IATED, Valencia, ISBN: 978-84-697-9480-7, pp 439-447.

23. Tura N., Guidolin L., Irato P., **Santovito G.** (2018) From cell to inheritance of characters: an introduction to classical genetics in primary school. INTED2018 Proceedings, IATED, Valencia, ISBN: 978-84-697-9480-7, pp 439-447.

Other full papers

1. Giambartolomei F., **Santovito G.**, Bisol P.M., Cassini A., Albergoni V. (1994). Accumulo di metalli pesanti in diverse forme genotipiche di *Cerastoderma glaucum* (Mollusca: Bivalvia). XI Congresso Nazionale Associazione Italiana di Oceanologia e Limnologia, Sorrento, 26-28 ottobre. A cura di G. Albertelli, A. De Maio e M. Piccazzo, pp. 373-383.
2. Favero M., **Santovito G.**, Cassini A. (1995). Heavy metals in different organs of a bivalve mollusc (*Cerastoderma glaucum*) exposed to nickel. Proceeding of the 10th International Conference on Heavy Metals in the Environment, Hamburg, vol. 1, pp. 137-140.
3. **Santovito G.**, Favero M., Cassini A., Albergoni V. (1995). Metalli pesanti in crostacei della Laguna di Venezia. S.It.E./Atti 16. A cura di O. Ravera e A. Anelli, Edizioni Zara, Parma pp. 127-129.
4. **Santovito G.**, Favero M., Cassini A., Albergoni V. (1995). Metalli pesanti nella ghiandola digestiva e nelle branchie di *Cerastoderma glaucum* (Mollusca, Bivalvia) della Laguna di Venezia. S.It.E./Atti 16. A cura di O. Ravera e A. Anelli, Edizioni Zara, Parma pp. 123-125.
5. Albergoni V., Cassini A., Coppellotti O., Favero M., Favero N., Irato P., Piccinni E., **Santovito G.** (1996). Physiological and biochemical aspects of adaptation to dissolved oxygen increase and heavy metal contamination. Proceedings of the Third Meeting on Antarctic Biology. Santa Margherita Ligure, December 13-15, 1996. G. Di Prisco, S. Focardi, P. Luporini, Eds. Camerino University Press, pp. 221-231.
6. Favero M., **Santovito G.**, Cassini A. (2000). Superossido dismutasi in molluschi della Laguna di Venezia. In: "La ricerca scientifica per Venezia: il Progetto Sistema Lagunare Veneziano" Istituto Veneto di Scienze, Lettere ed Arti, Venezia, Vol. II, Tomo I, pp. 479-484.

Patents

1. Boldrin F., **Santovito G.**, Wloga D., Cassidy-Hanley D., Clark T.G., Gaertig J, Piccinni E. (2005). MTT2 promoter and methods of use. 60/668,930 USA provisional patent.

Abstracts and congresses

1. **Santovito G.**, Favero M., Cassini A., Albergoni V. (1995). Metalli pesanti in crostacei della Laguna di Venezia. Atti del 6° congresso nazionale della Società Italiana di Ecologia, Venezia, 26-29 settembre 1994.
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