

CURRICULUM VITAE CINZIA VERDE

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cinzia.verde@ibbr.cnr.it
Via Pietro Castellino 111, 80131 Naples, Italy

VERDE is a marine biochemist. Her research focused on studying the molecular basis of cold adaptation of oxygen-binding proteins in bacteria and fish. The results of this study are summarised in over **110** publications on highly-qualified international journals and book chapters, and have been the object of over **30** lectures in international and national venues. Her extensive and ongoing collaborations with outstanding researchers are well documented in her track record. Her research is highly regarded as being at the forefront of the field and she frequently receives invitations to present it at international meetings. -**Managing Editor** of *Marine Genomics* (Elsevier, IF: **1.97**). -**Reviewer** of over **70** Articles for top-level journals. -**Project Reviewer** for international grant agencies (e.g. European Science Foundation (ESF), National Science Foundation (NSF), German Research Foundation (DFG), etc). -**Guest Editor** of several Special issues in highly-qualified international journals and books. -**Coordinator/Partner of many national and international grant projects.** -**Tutor** of 6 graduate and 7 PhD students. -**Member of the Planning, Advisory and Scientific Group** of the SCAR programme Antarctic Ecosystem: Adaptation, Thresholds and Resilience (AnT-ERA). -**Member** of “SCAR-IPY *ad hoc* Steering Committee for Marine Biology”.
H index 17 (Google Scholar); Total citations number 952;

RESEARCH INTEREST

Molecular adaptations in models of prokaryotes and eukaryotes from extreme environments; vulnerability to climate change. Impacts on ecosystems of fast climate change occurring in the polar regions, and pressures arising from global change, invasive species, human impacts, and extreme events. Production of changes in individuals, populations and communities by synergistic stresses. Multidisciplinary studies of current biological processes in polar ecosystems, to define tolerance limits/thresholds and thereby determine resistance and resilience to environmental changes, also by means of structural/functional analysis of genes and proteins, in the framework of impacts on adaptations and evolution.

Interest on polar marine organisms: (i) they are amongst the most vulnerable species to climate change; (ii) micro/macroorganisms are a valuable source of natural products that can function as start structures of new molecules for drug discovery. New projects are aimed at taking advantage of biodiversity of marine organisms for the development of novel bioactive compounds.

EDUCATION

Classical High School Degree with maximum rating.

-**1987**-Degree in Biological Science (with maximum rating and) *cum laude* at the University of Naples

PROFESSIONAL EXPERIENCE

-**2001-Present**-Researcher and Group Leader of the **Project “Globins”**
CNR-IBP, Naples, Italy.

-**2010 Senior Researcher** and Group Leader of the **Project “Globins”** CNR- IBBR, Naples, Italy

-**2003-2004-Visiting Scientist”**, Northeastern University, Department of Biology, Boston, USA (CNR fellowship, “Short-Term Mobility”, 2004). Project: “Erythropoiesis”

-**1989-Visiting Scientist”** Department of Pathology, WHO, Immunology Research and Training Centre (Switzerland), Project “Production of Monoclonal Antibodies Against Ribonuclease”.

Fellowship: **Federation of European Biochemical Societies (FEBS)**

HONOURS, LEADERSHIP/SERVICE, PROPOSALS REVIEWER

-2015-Guest Editor of a Special issue, **Marine Genomics** “The Marine Genome: Structure, Regulation and Evolution” (Danovaro R, Costantini M, Verde C eds)

-2014-Member of the Organising Committee of the AnT-ERA Workshop on *Molecular and genetic advances to understanding evolution and biodiversity in the polar regions - The legacy of EBA*, IBBR, Naples. **2-3 October 2014**

-2014-Reviewer of the Project Pegasus- Short application to the Research Foundation Flanders-FWO. Structural and functional investigations into a tRNA-modifying enzyme complex tuned by GTP hydrolysis, A Pica, Coordinator

-2014-Reviewer of the Project NSF MCB/1112/1413141/, National Science Foundation Proposal: **1341661** *Collaborative Research: Causes of parallel molecular evolution: insights from protein engineering* Prof Jay Storz, Coordinator

-2014-Member of the Scientific Committee of the *XVIIIth International Conference on Dioxygen Binding and Sensing Proteins*, Manchester (UK) **6-10 July 2014**

-2013-Reviewer for SCAR fellowship applicants

-2013-Reviewer of the Project NSF 13-527, National Science Foundation Proposal: **1341661** *Phylogenomic study of adaptive radiation in Antarctic fishes*, Prof Thomas Near, Coordinator

-2013-Reviewer of the Project P 26465-B25, Biological and Medical Sciences Austrian Science Fund Proposal **1341661** *Evolutionary dynamics of Eocene Antarctic cartilaginous fishes*, Prof Jürgen Kriwet

-2013-Reviewer of the Project 14-27546S Czech Science Foundation Proposal *Prokaryotic community composition of soils of the James Ross Island, Antarctica - a potential pool for biotechnology*, Prof Ivo Sedláček

-2012 Associated member of the Dept of Biology, Università di Roma Tre, Rome

-2012-Member of the Scientific Committee of the *XVIIth International Conference on Dioxygen Binding and Sensing Proteins*, Parma (Italy) 29 August-1 September 2012

-2012-Guest Editor of a Special issue, **Marine Genomics** “Molecular and genetic advances to understanding evolution and biodiversity in the polar regions” (Verde C, di Prisco G, Convey P eds)

-2012-Reviewer of the Project 5111, National Science Foundation Proposal: 1246181 *Collaborative Research: Phylogenomics and the adaptive radiation of Antarctic notothenioid fishes (Teleostei: Percomorpha)*, Prof Thomas Near, Coordinator

-2012-Reviewer of the Project 09-612, National Science Foundation Proposal:1204260 *Synthesis of genomic, structural biology, and molecular physiological analyses to understand adaptive mtDNA variation in polar species*, Dr Michael Garvin, Coordinator

-2012-Editor From Pole to Pole, Adaptation and evolution in marine environments. A book series on the scientific achievements of environmental research during the International Polar Year (IPY), (C. Verde and G. di Prisco eds), Vol 2, Springer

-2012-Editor From Pole to Pole, Adaptation and evolution in marine environments. A book series on the scientific achievements of environmental research during the International Polar Year (IPY), (G. di Prisco and C. Verde eds), Vol 1, 222 pp. Springer

-2011-Member of the Scientific Committee of *CAREX Conference on Life in Extreme Environments*, Dublin (Ireland) **18-20 October 2011**

-2011-Reviewer of the Project “Hemoglobin layered nanoparticles”, ASTRID 2011, *Agence National de la Recherche* (ANR), France, Coordinator: Prof. Michael Marden

-2011-Guest Editor of a Special issue, *Oecologia Australis: Antarctic-South American interactions in the marine environment* (ASAI) (Campos L, Bassoi M, Verde C, Gutt J, eds) **Vol 15: 40-50.**

ISSN: 21776199

2011 Reviewer of the Project “ New tools and directions for the understanding of the effect of environmental changes on fish physiology”, *Agence National de la Recherche* (ANR), France, Programme for Post-docs

-2010-Present-Member of the Planning and Scientific Group of SCAR Programme: Antarctic Thresholds - Ecosystem Resilience and Adaptation (AnT-ERA)

-2010-Member of the Scientific Committee of the Workshop *Polar Marine and Lacustrine Organisms: Gene and Protein Evolution in a Changing Environment, in the framework of the SCAR Programme SCAR, IPY, Evolution and Biodiversity in the Antarctic. The Response of Life to Change (EBA)* IBP, Naples. **24-25 May 2010**

-2010-Reviewer of the Project “Phylogeny of the Cumacea (Crustacea) and the evolution of cumacen hemocyanin” **RE 3160/1-1**-DFG-Erstantrag (11.05.2010). DFG Deutsche Forschungsgemeinschaft (*German Research Foundation*) Coordinator: Dr. Peter Rehm

-2010-Member of the Scientific Committee of the *XVIth International Conference on Dioxygen Binding and Sensing Proteins*, Antwerp (Belgium) **22-26 August 2010**

-2009-Editor of a Special issue of *Marine Genomics* devoted to the Workshop “*The Polar and Alpine Environments: Molecular and Evolutionary Adaptations in Prokaryotic and Eukaryotic Organisms*” (G. di Prisco, P. Luporini, L. Tutino, C. Verde eds), Elsevier. Vol 2, Issue 1, pp 1-80 (**March 2009**). Vol 2, Issue 2, pp 81-148 (**June 2009**)

-2008-Present-Managing Editor of *Marine Genomics* (Elsevier) (IF: 1.971)

-2009-Present-Expert of Marine Biology in the *Working Group 3: Environmental change and marine ecosystems. Marine observatories and ecosystem time series*. Svalbard Integrated Arctic Earth Observing System (SIOS). SIOS is a Collaborative Project and Coordination and Support Actions for Construction of New Infrastructures - Preparatory Phase - funded by EU under INFRA-2010-2.2.3.

-2008-Present-External Reviewer of the *National Science Foundation* for Polar Research

-2008-Member of the Scientific Committee of the *XV International Conference on Dioxygen Binding and Sensing Proteins*, Aarhus (Denmark). **17-21 August 2008**

-2008-Editor, “Dioxygen Binding and Sensing Proteins”, Protein Reviews Series (M Bolognesi, G di Prisco, C Verde eds), Springer

-2008-Member of the Scientific Committee of the Workshop “*The Polar and Alpine Environments: Molecular and Evolutionary Adaptations in Prokaryotic and Eukaryotic Organisms*”, IBP, Naples. **29-30 May 2008**

-2008-Reviewer, Project 0839007, National Science Foundation, Proposal:08-535

“*Antarctic organisms and ecosystems*”, Coordinator: Prof. Thomas Near

-2008-Associate Partner in “CAREX” (The Coordination Action for Research Activities on Life in Extreme Environments) FP7 call ENV.2007.2.2.1.6

-2008-Present- Editorial Board *The Open Geography Journal* (Bentham Science Publishers).

ISSN: 1874-9232

-2007-Editor of a Special Issue of *di Gene*, devoted to the “*XIVth International Conference on Dioxygen Binding and Sensing Proteins*” (L Moens, M Bolognesi, G di Prisco, C Verde eds), Elsevier. Vol 398, Issues 1-2, pp 1-248

-2007-Head of the Research Area “Polar Biology” (TA.P02.021.001, Department of Earth and Environment (DTA), CNR: “La vita e gli adattamenti negli ambienti polari”

-2006-Present-Invited Member and Participant, TUNU-Mafig (TUNU = *East Greenland*, MAFIG = *MARine Fishes of N.E. Greeland*), “Lead Project” of IPY

-2006-Present-Invited Member and Participant, EBA (*Evolution and Biodiversity in the Antarctic: the Response of Life to Change*), Scientific Committee on Antarctic Research (SCAR)

-2006-Present-Member of “SCAR-IPY ad hoc Steering Committee for Marine Biology”

-2006-Member of the Scientific Committee of the *XIVth International Conference on Dioxygen Binding and Sensing Proteins*, Naples, (Italy). **3-7 September 2006**

-2001-Present-Vice-President of the CNR Network of Polar Research “Polarnet”

-2001-Coordinator of the Sector Biological Sciences (PNRA) Theme: “Molecular bases of cold adaptation in Antarctic and Arctic organisms”, Project “Physiological, biochemical and molecular bases of evolutionary adaptation in teleosts”

INVITED TALK, MEETING CHAIR/CONVENOR

-2014- Chair of Session AnT-ERA Workshop on *Molecular and genetic advances to understanding evolution and biodiversity in the polar regions - The legacy of EBA*, IBBR, Naples. **2-3 October**

-2014-Chair of Session XVIIIth International Conference on Dioxygen Binding and Sensing Proteins, Sheffield (UK). **6-10 July**

-2014- Chair of Session XXXIII SCAR Open Science Conference, Auckland, (New Zealand) **23-31 August**

-2014- Lecture XXXIII SCAR Open Science Conference, Auckland, (New Zealand) **23-31 August**

-2014- Invited Lecture, *Society of Experimental Biology*, Annual Meeting, Manchester (UK) **1-4 July**

-2013-Lecture *Society of Experimental Biology*, Annual Meeting, Valencia (Spain) **3-6 July**

-2013-Chair of Session XI SCAR BIOLOGY SYMPOSIUM. Barcelona, (Spain) **15-19 July**

- 2013-Lecture *XI SCAR BIOLOGY SYMPOSIUM*. Barcelona, (Spain) **15-19 July**
- 2013-Invited Lecture Convegno “Giornata Antartica” Università Roma 3, Roma (Italia). **15 March 2013**
- 2012-Chair of Session *XVIIth International Conference on Dioxygen Binding and Sensing Proteins*, Parma (Italy). **29 August-1 September**
- 2012-Invited Lecture Side-Meeting Event, *XXXII SCAR Open Science Conference*, Portland, (USA) **13-25 July**
- 2012-Lecture Session: Bipolar Science: Connections with the Arctic, *XXXII SCAR Open Science Conference*, Portland, (USA) **13-25 July**
- 2012-Chair of session Evolutionary Adaptation to the Antarctic Environment, *XXXII SCAR Open Science Conference*, Portland, (USA) **13-25 July**
- 2012-Lecture, *IPY Conference Montreal, From Knowledge to Action*, Montreal, (Canada) **22-27 April**
- 2012-Invited Lecture *Planet Under Pressure*, Elsevier Conference, London (UK) **25-28 March**
- 2011-Lecture *Society of Experimental Biology*, Glasgow, (Scotland) **30 June-4 July**
- 2011-Invited expert *European Science Foundation (ESF) “Brainstorming meeting: towards a wider scenario”*, Cascais (Portugal) **10-11 February 2011**
- 2011-Lecture *World Conference on Marine Biodiversity*, Aberdeen (Scotland) **26-30 September 2011**
- 2011-Chair and Organiser Side-Meeting Event **Advances on Evolution and Biodiversity in Marine Antarctic Environment**, *World Conference on Marine Biodiversity*, Aberdeen (Scotland) **26-30 September**
- 2011-Chair Session **1 Advances on Evolution and Biodiversity in Marine Antarctic Environment**, *World Conference on Marine Biodiversity*, Aberdeen (Scotland) **26-30 September**
- 2011-Lecture *CAREX Conference on Life in extreme environments*, Dublin (Ireland) **18-20 October 2011**
- 2011-Chair of Session *CAREX Conference on Life in extreme environments*, Dublin (Ireland) **18-20 October 2011**
- 2011-Keynote Lecture International Debate, *Festival della Scienza*, Genova (Italy) **21 October-2 November 2011**
- 2011-Organiser International Debate, *Festival della Scienza*, Genova (Italy) **21 October-2 November 2011**.
- 2010-Organiser of the Workshop *Polar Marine and Lacustrine Organisms: Gene and Protein Evolution in a Changing Environment, in the framework of the SCAR Programme SCAR, IPY, Evolution and Biodiversity in the Antarctic. The Response of Life to Change (EBA) IBP*, Naples (Italy) **24-25 May 2010**.
- 2010-Invited Lecture Workshop *Polar Marine and Lacustrine Organisms: Gene and Protein Evolution in a Changing Environment, in the framework of the SCAR Programme SCAR, IPY, Evolution and Biodiversity in the Antarctic. The Response of Life to Change (EBA) IBP*, Napoli (Italy) **24-25 May 2010**
- 2010-Invited Participant *WORKSHOP ON FUTURE OF SCAR BIOLOGY*, Castiglioncello (Italy) **27-28 May 2010**
- 2010-Chair of Session *XVIth International Conference on Dioxygen Binding and Sensing Proteins*, Antwerp (Belgium). **22-26 August 2010**
- 2010-Invited Lecture *Society of Experimental Biology*, Prague (Czech Republic) **30 June- 3 July 2010**
- 2010-Lecture *The International Polar Year Oslo Science Conference* Oslo (Norway) **8-12 June 2010**
- 2010-Keynote Lecture upon invitation, *Biodiversity: Life response to Changes*, ESF Workshop, Strasbourg (France) **27 September 2010**
- 2009-Keynote Lecture upon invitation, *X SCAR International Biology Symposium*, Sapporo, Hokkaido (Japan). **26-31 July 2009**
- 2009-Chair of Session *X SCAR International Biology Symposium*, Sapporo, Hokkaido (Japan). **26-31 July 2009**
- 2009-Invited Lecture *European Community-CAREX - Laboratory Procedures Workshop*, Viterbo (Italy). **25-26 June 2009**
- 2009-Invited Lecture, *ASLO Aquatic Sciences Meeting Conference*, Nice (France). **25-30 January 2009**
- 2008-Invited Lecture *European Community-CAREX - Identification of model ecosystems in extreme environments*, Sant Feliu de Guixols (Spain). **30 November-2 December 2008**
- 2008-Keynote Lecture upon invitation, International Debate, *Festival della Scienza*, Genova (Italy). **23 October-4 November 2008**

- 2008-Organiser International Debate, *Festival della Scienza*, Genova (Italy). **23 October-4 November 2008**
- 2008-Invited Lecture *Joint EC-US/CIESM Workshop on Marine Genomics: at the Interface of Marine Microbial Ecology and Biotechnological Applications*, Montecarlo (Monaco). **12-14 October 2008**
- 2008-Invited Participant due to her expertise in Marine Genomics *Joint EC-US/CIESM Workshop on Marine Genomics: at the Interface of Marine Microbial Ecology and Biotechnological Applications*, Montecarlo (Monaco). **12-14 October 2008**
- 2008-Invited Lecture *Ciclo di seminari per i dottorandi della Scuola di Dottorato in Scienze Polari*, Università di Siena, Siena (Italy). **12 September 2008**
- 2008-Keynote Lecture upon invitation, *XV International Conference on Dioxygen Binding and Sensing Proteins*, Aarhus (Denmark). **17-21 August 2008**
- 2008-Chair of Session *XV International Conference on Dioxygen Binding and Sensing Proteins*, Aarhus (Denmark). **17-21 August 2008**
- 2008-Invited Lecture *XXX SCAR/IASC IPY Open Science Conference*, St. Petersburg (Russia). **5-7 July 2008**
- 2008-Organiser of the Workshop “*The Polar and Alpine Environments: Molecular and Evolutionary Adaptations in Prokaryotic and Eukaryotic Organisms*”, IBP, Naples. **29-30 May 2008**
- 2008-Keynote Lecture upon invitation, *XVIII Settimana della Cultura Scientifica*, Rome, (Italy). **7 March 2008**
- 2007-Keynote Lecture upon invitation, “*Ny-Ålesund and IPY*” Seminar, Cambridge (UK.) **16-17 October 2007**
- 2007-Invited Speaker *6th PNRA Meeting on Antarctic Biology*, Follonica (Italy). **7-9 June 2007**
- 2007-Keynote Lecture upon invitation, “*Italy-Norway Meeting*”, Rome (Italy). **11 May 2007**
- 2006-Invited Lecture *Workshop on Antarctic Evolutionary Biology*, Leuven (Belgium) **4-5 December 2006**
- 2006-Invited Participant *Workshop on Antarctic Evolutionary Biology*, Leuven (Belgium) **4-5 December 2006**
- 2006-Lecture *Marine Genomics*, Sorrento (Italy). **28 October-1 November 2006**
- 2006-Invited Lecture *Conferenza Nazionale sulla Ricerca nelle aree Polari*, Rome (Italy). **17-18 October 2006**
- 2006-Organiser of the “*XIVth International Conference on Dioxygen Binding and Sensing Proteins*”, Stazione Zoologica Anton Dohrn, Naples (Italy). **3-7 September 2006**
- 2006-Invited Lecture *XIVth International Conference on Dioxygen Binding and Sensing Proteins*, Naples, (Italy). **3-7 September 2006**
- 2006-Invited Lecture *XXIX SCAR Meeting and Open Science Conference*, Hobart (Australia). **12-14 July 2006**
- 2005-Keynote Lecture upon invitation, *Third International Symposium on the Arctic Research and Seventh Ny-Ålesund Scientific Seminary*, Tokyo (Japan). **22-24 February 2005**
- 2005-Invited Lecture, *The ICEFISH Symposium*, Walpole, Maine (USA). **21-24 August 2005**
- 2005-Invited Lecture *IX SCAR International Antarctic Biology Symposium*, Curitiba (Brasil). **25-29 July 2005**
- 2005-Invited Lecture *XVI riunione della sezione Sardegna della Società Italiana di Biochimica e Biologia Molecolare*, Sassari, (Italy). **24 June 2005**
- 2004-Lecture, *Ecology of the Antarctic Sea Ice Zone, Final Symposium*, Korčula (Croatia). **27 September-1 October 2004**
- 2004-Lecture *XXVIII SCAR & COMNAP XVI: Evolution and Biodiversity of Life in Polar Regions*, Bremen (Germany). **25-31 July 2004**
- 2002-Invited Lecture *EVOLANTA 2nd Workshop: Adaptive Evolution of Antarctic Marine Organisms*, Pontignano, Siena, (Italy). **1-6 December 2002.**
- 2002-Invited Lecture *9th Int Symp on Antarctic Science. Environmental changes in Antarctica: impacts and responses*, Ansan (Seoul), (South Korea). **8-10 October 2002.**
- 2002-Invited Lecture *1st Korea-Italy Workshop on Polar Research*, Ansan (Seoul), (South Korea). **4 October 2002**
- 2002-Invited Participant *1st Korea-Italy Workshop on Polar Research*, Ansan (Seoul), (South Korea). **4 October 2002**

EDUCATION/TEACHING ACTIVITIES

Mentoring Young Scientist

She was tutor of 5 experimental theses and 6 PhD students.

-2012- Scuola di Dottorato SIENA Lezioni dottorato *Ciclo di seminari per i dottorandi della Scuola di Dottorato* per le SCIENZE della Terra, ambientali e POLARI. **Invited Lecture** on Evolutionary adaptations in polar marine organisms. The role of the time and oxygen. Anno accademico 2011-2012

-2012- Scuola di Dottorato in Scienze Chimiche, “Studio di emoproteine con funzione protettiva da specie reattive dell'azoto e dell'ossigeno” University of Naples, Federico II, Italy

-1998-1999-Graduate degree programme in Neurophysiopathology, Biochemistry. University of Naples, Federico II, Italy

RESEARCH GRANT EXPERIENCE

-2014-Partner in the Project “Detrimental effects of oil exposure on polar cod investigated by genome-wide transcriptome analysis and enzyme assays of vital organ”'s coordinated by Dr. Øivind Andersen (Nofima).

-2013-Coordinator of the PNRA Project The emergent role of new globins of Antarctic fish in the defence against oxidative and nitrosative stress. EURO 58.000.00

-2013/2014-Coordinator of the Project CNR_CONICET (Argentina) 2013-2014, Structure and function of hemoproteins from Antarctic microorganisms. EURO 8.000.00.

-2013-Participant in the Project PGR 00151 Italia-Argentina, Ministero degli Affari Esteri, Il ruolo delle emoglobine nella rimozione delle specie reattive dell'ossigeno e dell'azoto. EURO 21.000.00

-2012-Partner in the project “Interaction of thermal stress and toxicant exposure in polar cod investigated by genome-wide transcriptome analysis” coordinated by Dr. Øivind Andersen (Nofima).

-2012- Co-Leader, PRIN 2010: Neuroprotection vs Neurodegeneration: Role of Estrogen-Induced Neuroglobin Expression

VERDE: EURO 50.000.00

-2012-Participant in the Project Italia-Argentina, Ministero degli Affari Esteri, Il ruolo delle emoglobine nella rimozione delle specie reattive dell'ossigeno e dell'azoto. EURO 21.000.00

VERDE: EURO 4.500.00

-2011-Participant in the Project Italia-Argentina, Ministero degli Affari Esteri, Il ruolo delle emoglobine nella rimozione delle specie reattive dell'ossigeno e dell'azoto. EURO 30.000.00

VERDE: EURO 7.000.00

-2010-2011-Group Leader of a Research Team in the Project: Role of the Oxygen in the Evolution – Genes and proteins of polar fishes (PNRA 2010/A1.08). EURO 125.000,00

VERDE: EURO 45.000.00

-2009-2010-Group Leader of a Research Team in the Project: Biogeochemical characterization of sub-glacial Antarctic Lakes (PNRA 2000/A2.02). EURO 150.000,00

VERDE: EURO 21.000.00

-2007-2009-Group Leader of a Research Team in the Project: Structure, function and evolution of heme proteins from Arctic and Antarctic marine organisms: cold-adaptation mechanisms and acquisition of new functions (PRIN SFZZZ7_001.). EURO 257.400.00

VERDE: EURO 50.000.00

-2006-Present-Group Leader and Coordinator of the Project: ICEFISH (“International Collaborative Expedition to collect and study Fish Indigenous to Sub-Antarctic Habitats”), chosen by the Steering Committee of ICSU-WMO (“International Council for Science-World Meteorological Organisation”) as “Lead Project” for the International Polar Year (IPY). **Under negotiation**

-2006-Group Leader of the Project: *Bloodthirsty and erythropoiesis*. CNR

VERDE: EURO 7.000,00

Proposal number 971

-2005-2007-Group Leader of a Research Team in the Project: “Polar Aquarium” (PNRA 2005/1.04). EURO 80.000,00

VERDE: EURO 80.000,00

-2005-2007-Group Leader of a Research Team in the Project: Genomics and Proteomics of the Antarctic Psychrophilic Ciliate *Euplotes focardii* (PNRA 2005/1.01). EURO 220.000,00

VERDE: EURO 70.000,00

-2005-2007-Group Leader of a Research Team in the Project: Exploration and characterisation of Lake Concordia, East Antarctica (PNRA 2005/12.1). EURO 300.000,00

VERDE: EURO 47.800,00

-2004-Participant in the Project EVOLANTA (“Evolution of Antarctic organisms”) (PNRA) EURO 20.000,00

VERDE: EURO 20.000,00

-2004-2006-Group Leader of a Research Team in the Project: Evolution and molecular adaptation of the oxygen transport system in polar marine organisms. Structure, function and genes (PNRA 1.3 2004/2006). EURO 600.000,00

VERDE: EURO 250.000,00

-2003-2004- Group Leader of a Research Team in the Project “*Erythrocyte functions, ion transport and hemoglobin-cell interaction in Arctic marine organisms*” (CNR). EURO 50.000,00 **VERDE: EURO 20.000,00**

-2002-2003-Participant in the Project: Transportation and maintenance of Antarctic fish (PNRA 2002/1.09). EURO 50.000,00

VERDE: EURO 25.000,00

-2002-2003-Group Leader of a Research Team in the Project “*Erythrocyte functions, ion transport and hemoglobin-cell interaction in Arctic marine organisms*” (CNR). EURO 50.000,00 **VERDE: EURO 30.000,00**

-2002-2003-Group Leader of a Research Team in the Project “Molecular bases of cold adaptation in Antarctic and Arctic organisms”, Project “Physiological, biochemical and molecular bases of evolutionary adaptation in teleosts” (PNRA). EURO 160.188,00

VERDE: EURO 30.000,00

-2000-2001- Group Leader of a Research Team in the Project “*Erythrocyte functions, ion transport and hemoglobin-cell interaction in Arctic marine organisms*” (CNR, Arctic Strategic Project).EURO 50.000,00

VERDE: EURO 35.000,00

-1999-2001-Participant in the Project: “Molecular bases of cold adaptation in Antarctic teleosts” (PNRA 1.2, 1999-2001). EURO 273.206,00

SELECTED PUBLICATIONS (N.10)

Giordano D, Coppola D, Russo R, Tinajero-Trejo M, di Prisco G, Lauro F, Ascenzi P, **Verde C 2013** The globins of cold-adapted *Pseudoalteromonas haloplanktis* TAC125: from the structure to the physiological functions. *Adv Microb Physiol* 63: 329-389

Corresponding author

IF 5.8

Giordano D, Boron I, Abbruzzetti S, Van Leuven W, Nicoletti FP, Forti F, Bruno S, Cheng C.-H. C, Moens L, di Prisco G, Nadra AD, Estrin D, Smulevich G, Dewilde S, Viappiani C, **Verde C 2012** Biophysical characterisation of neuroglobin of the icefish, a natural knockout for hemoglobin and myoglobin. Comparison with human neuroglobin. *PLoS ONE* 7(12):e44508. doi: 10.1371/journal.pone.0044508.

Corresponding author

IF 3.73

Riccio A, Mangiapia G, Giordano D, Flagiello A, Tedesco R, Bruno S, Vergara A, Mazzarella L, di Prisco G, Pucci P, Paduano L, **Verde C 2011** Polymerisation of hemoglobins in Arctic fish: *Lycodes reticulatus* and *Gadus morhua*. *IUBMB Life* 63: 346-354

Corresponding author

IF 3.514

Vergara A, Vitagliano L, Merlino A, Sica F, Marino K, **Verde C**, di Prisco G, Mazzarella L **2010** An order-disorder transition plays a role in switching off the Root effect in fish hemoglobins. *J Biol Chem* **285**: 32568-32575

IF: 5.328

Giordano D, Boechi L, Vergara A, Martí MA, Samuni U, Dantsker D, Grassi L, Estrin DA, Friedman JM, Mazzarella L, di Prisco G, **Verde C** **2009** The hemoglobins of the sub-Antarctic fish *Cottoperca gobio*, a phylogenetically basal species. Oxygen-binding equilibria, kinetics and molecular dynamics. *FEBS J* **276**: 2266–2277

Corresponding author

IF: 3.042

Cheng C-H, di Prisco G, **Verde C** **2009** The “icefish paradox”. Which is the task of neuroglobin Antarctic hemoglobin-less icefish? *IUBMB Life* **61**: 184–188

Corresponding author

IF: 3.578

Verde C, Vergara A, Mazzarella L, di Prisco G **2008** The hemoglobins of fishes living at polar latitudes - Current knowledge on structural adaptations in a changing environment. *Current Protein & Peptide Science* **9**: 578-590 (*Invited Review*)

Corresponding author

IF: 3.01

Vitagliano L, Vergara A, Bonomi G, Merlino A, **Verde C**, di Prisco G, Howes BD, Smulevich G, Mazzarella L **2008** Spectroscopic and crystallographic characterization of a tetrameric haemoglobin oxidation reveals structural features of the functional intermediate R/T state. *J Am Chem Soc* **130**: 10527-10535

IF: 8.091

Verde C, Balestrieri M, de Pascale D, Pagnozzi D, Lecointre G, di Prisco G **2006**. The oxygen-transport system in three species of the boreal fish family Gadidae. Molecular phylogeny of haemoglobin. *J Biol Chem* **281**: 22073-22084

First author

IF: 5.808

Verde C, De Rosa MC, Giordano D, Mosca D, de Pascale D, Raiola L, Cocca E, Carratore V, Giardina B, di Prisco G **2005** Structure, function and molecular adaptations of haemoglobins of the polar cartilaginous fish *Bathyrhaja eatonii* and *Raja hyperborea*. *Biochem J* **389**: 297-306

First author

IF: 4.22

REFEREED JOURNAL PUBLICATIONS

- **Verde C**, di Prisco G, M. Clark M, L Peck L, Lauro *FESF booklet* “Science on Rough Seas” (chapter 3): Stresses on polar marine ecosystems: impact on key ecosystem functions and services. In press **2014**
- Mazzarella L, Merlino A, Vitagliano L, **Verde C**, di Prisco G, Peisach J, Vergara A **2014** Structural modifications induced by the switch from an endogenous bis-histidyl to an exogenous cyanomet hexa-coordination in a tetrameric haemoglobin. *RSC Advances* **4**, 25852
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