

Curriculum Vitae- Anna Palumbo

Born in Naples, Italy on 21th February 1954

Researcher at the Stazione Zoologica Anton Dohrn from 1980, currently I level

Department of Biology and Evolution of Marine Organisms

Education/Training

Institute and Location	Degree (if applicable)	Year	Field of Study
University of Naples Federico II	Laurea cum laude	1976	Marine natural products
Stazione Zoologica Anton Dohrn	Fellowship	1977-1980	Marine natural products
Institut National des Sciences Appliquées de Lyon (INSA), Lyon, France	INSERM Fellowship	1979	Melanin Pigmentation
Stazione Zoologica Anton Dohrn	Resercher III Level	1980-1992	Marine natural products Melanin Pigmentation
NIH, Laboratory of Cell Biology, Bethesda, USA	Visitor scientist	1990	Drug incorporation into melanoma
MRC, Western General Hospital, Edinburgh, UK	Visitor scientist	1993	Melanin Pigmentation
Stazione Zoologica Anton Dohrn	Resercher II Level	1992-June 2007	Melanin pigmentation, Oxidative stress and lipid peroxidation, Identification and mechanism of action of new inhibitors of nitric oxide synthase, Biosynthesis, signalling and roles of nitric oxide in marine invertebrates
Stazione Zoologica Anton Dohrn	Researcher I Level	July 2007-present	Biosynthesis, signalling and roles of nitric oxide in marine invertebrates with main focus on functional evolution of nitric oxide synthase, developmental aspects and stress response. Biological activity of marine natural products.

Current research interests

-Response of marine organisms to environmental factors. The effects of some environmental conditions (acidification, toxic bloom, polluting agents) are examined on various marine organisms at different life phases by laboratory or field experiments. Oxidative and nitrosative parameters are followed together with stress gene expression, formation of nitric oxide and its signaling at gene and protein level.

-Purification and biological activity of marine natural products with a special focus on biotechnological potential of marine organisms.

Synergistic Activities

Current collaborative research activity with the following institutions:

- CRN, IBIM, Palermo, Italy
- CNR, Institute of Food Sciences, Avellino, Italy
- MBL, Woods Hole, USA
- Sea Education Association/MBL, USA
- National Wildlife Research Center, Carleton University, Ottawa, Canada
- University of Barcelona, Spain,
- University of Antwerp, Department of Biology, Belgium
- University "G. d'Annunzio" Chieti-Pescara
- University of Milan, Di. Pa.V., Milan, Italy
- University of Naples Federico II, Naples, Italy

Appointments and Awards

- Expert of Applied Biochemistry and Molecular Biology, University of Naples (1984-1988).
- Committee member of the "Collegio dei Docenti" for the PhD in Biologia Animale (University of Calabria) since 2009.
- Associate Editor of Pigment Cell Research (1991-1994).
- Member of the Editorial Board of Pigment Cell Research (1995-1999).
- Member of Library Committee at Stazione Zoologica Anton Dohrn (1992-2006).
- Coordinator degree thesis assignment and monitoring at Stazione Zoologica Anton Dohrn (2009-2013).

Organization of meetings

- Responsible for the Scientific Secretariat, 1st Meeting of the European Society for Pigment Cell Research, Sorrento (1997).
- Member of the Secretariat, 7th International Symposium on Marine Natural Products, Capri (1992).
- Member of the Organizing Committee, International Colloquium on Neuromelanin and Parkinson's Disease, Sorrento (1993).
- Member of the Scientific Committee of the 1st National Meeting iNOS Italian Nitric Oxide Society (2011).

Other activities

- Tutor of numerous degree thesis and national and international PhD thesis.
- Member of national and international PhD examination panels
- Referee for national and international journals
- Co-author of an Italian Patent: Inhibitor compounds of nitric oxide synthase (NOS). Application no. RM2000A000039, 01/24/2000

Scientometric data

Scientometric data: author of about 100 papers on international referenced (ISI) journals and some book chapters.

Orcid: 0000-0002-5972-5589

Google Scholar: <https://scholar.google.it/citations?hl=en&user=2FMaThUAAAAJ>

Bibliometric indexes (from Google Scholar) H-index 31, 2732 citations, i10 index 72 (data updated to February 23, 2017).

Selected publications in the last ten years

S. Comes, A. Locascio, F. Silvestre, M. d'Ischia, G.L. Russo, E. Tosti, M. Branno, **A. Palumbo**

Regulatory roles of nitric oxide during larval development and metamorphosis in *Ciona intestinalis*
Dev Biol **2007**, 306, 772-784

A. Palumbo, M. d'Ischia

Nitric oxide biogenesis, signalling and roles in molluscs: the *Sepia officinalis* paradigm

In: *Advances in Experimental Biology on Nitric Oxide*. Trimmer, B., Tota, B. (Ed.). Elsevier, London, **2007**, pp 45-64

T. Mattiello, G. Fiore, E.R. Brown, M. d'Ischia, **A. Palumbo**

Nitric oxide mediates the glutamate-dependent pathway for neurotransmission in *Sepia officinalis* chromatophore organs

J Biol Chem **2010**, 285, 24154-63

N. Andreakis, S. D'Aniello, R. Albalat, F.P. Patti, J. Garcia-Fernández, G. Procaccini, P. Sordino, **A. Palumbo**

Evolution of the Nitric Oxide Synthase family in metazoans

Mol Biol Evol **2011**, 28, 163-179

G. Romano, M. Costantini, I. Buttino I, A. Ianora, **A. Palumbo**

Nitric Oxide Mediates the Stress Response Induced by Diatom Aldehydes in the Sea Urchin *Paracentrotus lividus*

PLoS One **2011**, 6, e25980

- T. Mattiello, M. Costantini, B. Di Matteo, S. Livigni, A. Andouche, L. Bonnaud, **A. Palumbo**
The dynamic nitric oxide pattern in developing cuttlefish *Sepia officinalis*
Dev Dyn **2012**, 241, 390-402.
- V. Marrone, M. Piscopo, G. Romano, A. Ianora, **A. Palumbo**, M. Costantini
Defensome against toxic diatom aldehydes in the sea urchin *Paracentrotus lividus*
PLoS One **2012**, 7, e31750
- E. Ercolesi, G. Tedeschi, G. Fiore, A. Negri, E. Maffioli, M. d'Ischia, **A. Palumbo**
Protein nitration as footprint of oxidative stress-related nitric oxide signaling pathways in developing *Ciona intestinalis*
Nitric Oxide **2012**, 27, 18-24
- G.L. Russo, M. Russo, I. Castellano, A. Napolitano, **A. Palumbo**
Ovothiol isolated from sea urchin oocytes induces autophagy in Hep-G2 cell line
Mar Drugs **2014**, 12, 4069-4085
- I. Castellano, E. Ercolesi, **A. Palumbo**
Nitric oxide affects ERK signaling through down-regulation of MAP kinase phosphatase levels during larval development of the ascidian *Ciona intestinalis*
Plos One **2014**, 9, e102907
- O. Migliaccio, I. Castellano, G. Romano, **A. Palumbo**
Stress response to cadmium and manganese in *Paracentrotus lividus* developing embryos is mediated by nitric oxide
Aquatic Toxicology **2014**, 156, 125-134
- I. Castellano, E. Ercolesi, G. Romano, A. Ianora, **A. Palumbo**
The diatom-derived aldehyde decadienal affects life cycle transition in the ascidian *Ciona intestinalis* through Nitric oxide/ERK signaling.
Open Biol **2015**, 5, 140182
- A. Kumar, I. Castellano, F.P. Patti, **A. Palumbo**, M.C. Buia
Nitric oxide in marine photosynthetic organisms
Nitric Oxide **2015**, 47, 34-39
- O. Migliaccio, I. Castellano, P. Cirino, G. Romano, **A. Palumbo**
Maternal Exposure to Cadmium and Manganese Impairs Reproduction and Progeny Fitness in the Sea Urchin *Paracentrotus lividus*
PLoS One **2015**, 10, e0131815
- I. Castellano, O. Migliaccio, S. D'Aniello, A. Merlino, A. Napolitano, **A. Palumbo**
Shedding light on ovothiol biosynthesis in marine metazoans
Sci Rep **2016**, 6, 21506
- G. Pagano, M. Guida, A. Siciliano, R. Oral, F. Koçbaşıç, **A. Palumbo**, I. Castellano, O. Migliaccio, P.J. Thomas, M. Trifuoggi
Comparative Toxicities of Selected Rare Earth Elements: Sea Urchin Embryogenesis and Fertilization Damage with Redox and Cytogenetic Effects
Environ Res **2016**, 147, 453-460
- O. Migliaccio, I. Castellano, D. Di Cioccio, G. Tedeschi, A. Negri, P. Cirino, G. Romano, A. Zingone, **A. Palumbo**
Subtle reproductive impairment through nitric oxide-mediated mechanisms in sea urchins from an area affected by harmful algal blooms.
Sci Rep **2016**, 6, 26086
- A. Kumar, I. Castellano, F.P. Patti, M. Delledonne, H. Abdelgawad, G.T.S. Beemster, H. Asard, **A. Palumbo**, M.C. Buia

Molecular response of *Sargassum vulgare* to acidification at volcanic CO₂ vents - insights from de novo transcriptomic analysis
Mol Ecol **2017**, doi: 10.1111/mec.14034