Anna Palumbo

Born in Naples (Italy) on 21/02/1954

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Current Position: dirigente di ricerca, Senior Scientist

Current Affiliation:
Department of Biology and Evolution of Marine Organisms, Stazione Zoologica Anton Dohrn, Napoli (Italy)

Education/Training/Experience

Institute and Location	Degree/ Function	Year	Field of Study
University of Naples Federico II	Laurea	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	Ricercatore	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	1° Ricercatore	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	Dirigente di Ricerca	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 Marine natural products

Appointments and awards

1984-1988: Expert of Applied Biochemistry and Molecular Biology, University of Naples

2009- present : Committee member of the "Collegio dei Docenti" for the PhD in Biologia Animale (University of Calabria)

1991-1994: Associate Editor of Pigment Cell Research

1995-1999: Member of the Editorial Board of Pigment Cell Research

1992-2006: Member of Library Committee at Stazione Zoologica Anton Dohrn

2009-2014: Coordinator degree thesis assignment and monitoring at Stazione Zoologica Anton Dohrn

2012- present: SZN delegate for relations with China

Other

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)

Students' Supervision

PhD supervisor of twelve Ph.D. students (internal supervisor, dir. of studies, external) and three Postdoctoral researchers (past and present)

Tutor of numerous degree thesis

Publications

Author of 86 publications on ISI-journals (h index: 28) and 5 book chapters

List of publications of the last 10 years (2005-present):

Peer reviewed publications:

Palumbo, A. (2005). Nitric oxide in marine invertebrates: A comparative perspective. Comp. Biochem. Physiol. A Mol. Integr. Physiol. 142: 241-248.

Scheinker, V., Fiore, G., Di Cristo, C., Di Cosmo, A., d'Ischia, M., Enikolopov. G. & Palumbo, A. (2005). Nitric Oxide Synthase in the Nervous System and Ink Gland of the Cuttlefish *Sepia officinalis*: Molecular Cloning and Expression. Biochem. Biophys. Res. Commun. 338: 1204-1215.

Fiore, G., Di Cristo, C., Monti, G., Amoresano, A., Columbano, L., Pucci, P., Cioffi, F.A., Di Cosmo, A., Palumbo, A. & d'Ischia, M. (2006). Tubulin nitration in human gliomas. Neurosci. Lett. 394: 57-562.

Comes, S., Locascio, A., Silvestre, F., d'Ischia, M., Russo, G.L., Tosti, E., Branno, M. & Palumbo, A. (2007). Regulatory roles of nitric oxide during larval development and metamorphosis in *Ciona intestinalis*. Dev. Biol. 306: 772-784.

Di Cristo, C., Fiore, G., Scheinker, V., Enikolopov, G., d'Ischia, M., Palumbo, A. & Di Cosmo, A. (2007). Nitric oxide synthase expression in the central nervous system of *Sepia officinalis*: an in situ hybridization study. Eur. J. Neurosci. 26: 1599-1610.

Fiore, G., Mattiello, T., Tedeschi, G., Nonnis, S., d'Ischia, M. & Palumbo, A. (2009). Protein nitration is specifically associated with melanin production and reveals redox imbalance as a new correlate of cell maturation in the ink gland of *Sepia officinalis*. Pigment Cell Melanoma Res. 22: 857-859.

Di Cristo, C., Di Donato, P., Palumbo, A., d'Ischia, M., Paolucci, M. & Di Cosmo, A. (2010). Steroidogenesis in the brain of *Sepia officinalis* and *Octopus vulgaris*. Front. Biosci. (Elite Ed). 2: 673-683.

Mattiello, T., Fiore, G., Brown, E.R., d'Ischia, M. & Palumbo, A. (2010). Nitric oxide mediates the glutamate-dependent pathway for neurotransmission in *Sepia officinalis* chromatophore organs. J. Biol. Chem. 285: 24154-24163.

Andreakis, N., D'Aniello, S., Albalat, R., Patti, F.P., Garcia-Fernàndez, J., Procaccini, G., Sordino, P. & Palumbo A. (2011). Evolution of the Nitric Oxide Synthase family in metazoans. Mol. Biol. Evol. 28: 163-179.

Romano, G., Costantini, M., Buttino, I., Ianora, A. & Palumbo, A. (2011). Nitric Oxide Mediates the Stress Response Induced by Diatom Aldehydes in the Sea Urchin *Paracentrotus lividus*. PLoS One 6(10):e25980.

Mattiello, T., Costantini, M., Di Matteo, B., Livigni, S., Andouche, A., Bonnaud, L. & Palumbo, A. (2012). The dynamic nitric oxide pattern in developing cuttlefish *Sepia* officinalis. Dev. Dyn. 241: 390-402.

Marrone, V., Piscopo, M., Romano, G., Ianora, A., Palumbo, A. & Costantini, M. (2012). Defensome against toxic diatom aldehydes in the sea urchin *Paracentrotus lividus*. PLoS One 7(2):e31750.

Fago, A., Jensen, F.B., Tota, B., Feelisch, M., Olson, K.R., Helbo, S., Lefevre, S., Mancardi, D., Palumbo, A., Sandvik, G.K. & Skovgaard, N. (2012). Integrating nitric oxide, nitrite and hydrogen sulfide signaling in the physiological adaptations to hypoxia: a comparative approach. Comp. Biochem. Physiol. 162: 1-6.

Ercolesi, E., Tedeschi, G., Fiore, G., Negri, A., Maffioli, E., d'Ischia, M. & Palumbo, A. (2012). Protein nitration as footprint of oxidative stress-related nitric oxide signaling pathways in developing *Ciona intestinalis*. Nitric Oxide 27: 18-24.

Mattiello, T., d'Ischia, M. & Palumbo, A. (2013). Nitric oxide in chromatic body patterning elements of *Sepia officinalis*. J. Exp. Mar. Biol.Ecol. 447: 128-131.

Fiorito, G., Affuso, A., Anderson, D.B., Basil, J., Bonnaud, L., Botta, G., Cole, A., D'Angelo, L., De Girolamo, P., Dennison, N., Dickel, L., Di Cosmo, A., Di Cristo, C., Gestal, C., Fonseca, R., Grasso, F., Kristiansen, T., Kuba, M., Maffucci, F., Manciocco, A., Mark, F.C., Melillo, D., Osorio, D., Palumbo, A., Perkins, K., Ponte, G., Raspa, M., Shashar, N., Smith, J., Smith, D., Sykes, A., López, R.V., Tublitz, N., Zullo, L. & Andrews, P. (2014). Cephalopods in neuroscience: Regulations, Research and the 3Rs. Invert. Neurosci. 14: 13-36.

Sansone, C., Braca, A., Ercolesi, E., Romano, G., Palumbo, A., Casotti, R., Francone, M. & Ianora, A. (2014). Diatom-derived polyunsaturated aldehydes activate cell death in human cancer cell lines but not normal cells. PLoS One 9(7): e101220.

Russo, G.L., Russo, M., Castellano, I., Napolitano, A. & Palumbo, A. (2014). Ovothiol isolated from sea urchin oocytes induces autophagy in Hep-G2 cell line. Mar. Drugs 12: 4069-4085.

Castellano, I., Ercolesi, E. & Palumbo, A. (2014). Nitric oxide affects ERK signaling through down-regulation of MAP kinase phosphatase levels during larval development of the ascidian *Ciona intestinalis*. Plos One 9(7): e102907.

Gallina, A.A., Brunet, C., Palumbo, A. & Casotti, R. (2014). The Effect of Polyunsaturated Aldehydes on *Skeletonema marinoi* (Bacillariophyceae): The Involvement of Reactive Oxygen Species and Nitric Oxide. Mar. Drugs 12: 4165-4187.

Migliaccio, O., Castellano, I., Romano, G. & Palumbo, A. (2014). Stress response to cadmium and manganese in *Paracentrotus lividus* developing embryos is mediated by nitric oxide. Aquat. Toxicol. 156: 125-134.

Castellano, I., Ercolesi, E., Romano, G., Ianora, A. & Palumbo, A. (2015). The diatom-derived aldehyde decadienal affects life cycle transition in the ascidian *Ciona intestinalis* through Nitric oxide/ERK signaling. Open Biol. 5: 140182

Kumar, A., Castellano, I., Patti, F.P., Palumbo, A. & Buia, M.C. (2015). Nitric oxide in marine photosynthetic organisms. Nitric Oxide 47: 34-39.

Migliaccio, O., Castellano, I., Cirino, P., Romano, G. & Palumbo, A. (2015). Maternal Exposure to Cadmium and Manganese Impairs Reproduction and Progeny Fitness in the Sea Urchin *Paracentrotus lividus.* PLoS One 10: e0131815. doi: 10.1371/journal.pone.0131815.

Book Chapters:

Palumbo, A. & d'Ischia, M. (2007). Nitric oxide biogenesis, signalling and roles in molluscs: the *Sepia officinalis* paradigm. In: Barry Trimmer and Bruno Tota (Eds). Advances in Experimental Biology on Nitric Oxide. Elsevier, London. pp 45-64.

Migliaccio, O., Castellano, I., Romano, G., Palumbo, A. (2014). Response of sea urchin to environmental stress. In: Edgar Raymond Banks (Ed). Sea Urchins: Habitat, Embryonic Development and Importance in the Environment. Nova Science Publishers, Inc. New York. pp. 29-51.