

## Rossella Annunziata



Born in Ottaviano (Italy) on 01/09/1980

Tel. : +39 081 5833450

Fax: +39 081 7641355

e-mail: rossella.annunziata(at)szn.it

**Current Position :** Ricercatore III level

**Affiliation:** Biology and Evolution of Marine Organisms, Stazione Zoologica Anton Dohrn, Napoli

### Education/Training/Experience

Institute and Location	Degree / Function	Year	Field of Study
Department of Cellular and Developmental Biology, Stazione Zoologica A. Dohrn, Napoli, Italy	Master Student	2005-2007	Molecular Biology, Developmental Biology of Echinoderms
Università degli Studi di Napoli Federico II, Italy	Laurea in Biological Sciences	2007	Master thesis in Molecular Biology
Department of Genetics, University of Barcelona, Spain	Early Stage Research Fellow	2008-2009	Genomic organization and embryonic expression of ParaHox genes in the sea star <i>Patiria miniata</i>
Department of Biological Sciences, Carnegie Mellon University, Pittsburgh, USA	Research Internship	April 2008	Experimental manipulation of sea star embryos
Department of Cellular and Developmental Biology, Stazione Zoologica A. Dohrn, Napoli, Italy	PhD student	2009-2012	Gene Regulatory Networks in sea urchin and sea star embryonic gut development
Open University of London	PhD	2012	Molecular and Developmental Biology
Department of Cellular and Developmental Biology, Stazione Zoologica A. Dohrn, Napoli, Italy	Postdoc	2012-2013	Retinoic Acid role in the sea urchin embryonic development
Laboratory of Computational and Quantitative Biology, Diatom Functional Genomics Team, Sorbonne Université, CNRS, Paris, France	Postdoc	2013-2016	Molecular and physiological characterization of diatom circadian rhythms

Integrative Marine Ecology Department, Stazione Zoologica A. Dohrn Napoli, Italy	Postdoc	2017- 2019	Molecular regulation of diatom life cycle
Biology and Evolution of Marine Organisms Department, Stazione Zoologica A. Dohrn Napoli, Italy	Researcher	2019- today	Cell and Developmental Biology of marine organisms

### **International Courses:**

- Attacking Open Chromatin with ATAC Sequencing. EMBL course, 2018. Heidelberg, Germany.
- Functional Genomics of Marine Model Organisms, ASSEMBLE Workshop, 2012. Stazione Zoologica Anton Dohrn, Naples, Italy.
- Evolutionary Biology and Phylogenetics, 2012. Stazione Zoologica Anton Dohrn, Naples, Italy.
- Gene Regulatory Networks for Development, 2011. MBL (Marine Biological Laboratory) in WoodsHole, MA (USA).
- Browsing genomes with Ensembl, 2010. Stazione Zoologica Anton Dohrn, Naples, Italy.
- EMBO Practical Course Molecular Approaches to Evolution and Development, 2008. Marine station Kristinebergs Marina Forskningsstation, Fiskebäckskil, Sweden.

### **Appointments and Awards:**

- Since May 2019, Ricercatore III level at Stazione Zoologica Anton Dohrn.
- Assistant Professor State Qualification (Maître de Conférences) awarded by the French National Board of Universities (Conseil National des Universités, CNU), 2015.
- EMBL Fellowship. EMBO/ EMBL Symposium, Biological Oscillators: Design, Mechanism Function, 2015.
- Early Career Award, Molecular Life of Diatoms 2015 conference.
- Italian National Fellowship Model Organisms (MODO) (POR Campania FSE 2007-2013).
- MBL Scholarship, Gene Regulatory Networks for Development course (Woodshole, MA, USA), 2011.
- Marie Curie Fellowship, MOL-MORPH Early Stage Research Network, 2008.
- Marie Curie Fellowship, ZOONET Research Training Network, 2007.

### **Publications**

(\*Corresponding author)

1. Annunziata R\*, Hay Mele B, Marotta P, Volpe M, Entrambasaguas L, Mager S, Stec K, Ribera d'Alcalà M, Sanges R, Finazzi G, Iudicone D, Montresor M, Ferrante MI. Trade-off between sex and growth in diatoms: Molecular mechanisms and demographic implications. *Science Advances* (2022) 8 (3).
2. Annunziata R\*, C Balestra, M Pina, A Ruggiero, F Manfellotto, Benvenuto G, Biffali E, Ferrante MI. An optimised method for intact nuclei isolation from diatoms. *Scientific Reports* (2021) 11 (1681).

3. Annunziata R, Andrikou C, Perillo M, Cuomo C, Arnone MI. Development and evolution of gut structures: from molecules to function. *Cell and tissue research*. 2019.
4. Annunziata R, Ritter A, Fortunato AF, Manzotti A, Cheminant-Navarro S, Agier N, Huysman MJJ, Winge P, Bones A, Bouget FY, Lagomarsino MC, Bouly JP, Falciatore A. A bHLH-PAS protein regulates light-dependent diurnal rhythmic processes in the marine diatom *Phaeodactylum tricorutum*. *Proceedings of the National Academy of Sciences of the United States of America*. 2019 June, 116 (26) 13137-13142.
5. Amato A, Dell'Aquila G, Musacchia F, Annunziata R, Ugarte A, Maillet N, Carbone A, Ribera d'Alcalà M, Sanges R, Iudicone D, Ferrante MI. Marine diatoms change their gene expression profile when exposed to microscale turbulence under nutrient replete conditions. *Scientific Reports* 2017. 7 (1), 3826.
6. Arnone MI, Andrikou C, Annunziata R. Echinoderm systems for gene regulatory studies in evolution and development. *Current Opinion in Genetics & Development*. 2016 August. (39) 129-137.
7. Taddei L, Stella GR, Rogato A, Bailleul B, Fortunato AE, Annunziata R, Lepetit B, Finazzi G, Jaubert M, Falciatore A. Multi-signal control of the expression of the LHCX protein family in the marine diatom *Phaeodactylum tricorutum*. *Journal of Experimental Botany*. 2016 May. (13) 3939-3951.
8. Russo MT, Annunziata R, Sanges R, Ferrante MI, Falciatore, A. The upstream regulatory sequence of the light harvesting complex *Lhcf2* gene of the marine diatom *Phaeodactylum tricorutum* enhances transcription in an orientation- and distance-independent fashion. *Marine Genomics*. 2015 June. (24) 69-79.
9. Fortunato AE, Annunziata R, Jaubert M, Bouly JP, Falciatore A. Dealing with light: The widespread and multitasking Cryptochrome/Photolyase family in photosynthetic organisms. *Journal of Plant Physiology*. 2015 January. (172) 42-54.
10. Annunziata R and Arnone MI. A dynamic regulatory network explains *ParaHox* gene control of gut patterning in the sea urchin. *Development*. 2014 May; 141(12) 2462-72.
11. Annunziata R, Perillo M, Andrikou C, Cole AG, Martinez P, Arnone MI. Pattern and process during sea urchin gut morphogenesis: the regulatory landscape. *Genesis*. 2014 March; 52(3):251-68.
12. Ikuta T, Chen YC, Annunziata R, Ting HC, Tung CH, Koyanagi R, Tagawa K, Humphreys T, Fujiyama A, Saiga H, et al. Identification of an intact *ParaHox* cluster with temporal colinearity but altered spatial colinearity in the hemichordate *Ptychodera flava*. *BMC Evolutionary Biology*. 2013 June; 13-129.
13. Annunziata R, Martinez P, Arnone MI. Intact cluster and chordate-like expression of *ParaHox* genes in a sea star. *BMC Biology*. 2013 June; 11-68.
14. Arnone MI, Rizzo F, Annunziata R, Cameron RA, Peterson KJ, Martinez P. Genetic organization and embryonic expression of the *Parahox* genes in the sea urchin *S.purpuratus*: insights into the relationship between clustering and colinearity". *Developmental Biology*. 2006 December; 300(1):63-73.