

## *Vittoria Roncalli*



Born in Napoli (Italy) on 03/07/1984

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**Current Position:** Research Scientist

**Current Affiliation:**

Section: Integrated Marine Ecology, Stazione Zoologica Anton Dohrn, Napoli (Italy)

### **Education/Training/Experience**

<b>Institute and Location</b>	<b>Degree / Function</b>	<b>Year</b>	<b>Field of Study</b>
Department of Biology, University of Naples Federico II	BA	2003-2008	Marine sciences
Department of Biology, University of Naples Federico II	MS	2008-2010	Marine sciences
Department of Zoology, University of Hawai'i at Manoa	Ph.D.	2011-2015	Zoology (Marine sciences)
University of Hawai'i at Manoa and University of Alaska Fairbanks	Postdoc	2015-2018	Molecular marine science
Department of Genetic, University of Barcelona	Postdoc	2018-2019	Evolutionary Development
Stazione Zoologica Anton Dohrn, Napoli, Italy	Research Scientist	2019- present	Marine molecular ecology

### **Appointments and awards**

*Awards*

- 2019-IRBio\_UB\_PR2019, research grant Biodiversity Research Institute (IRBio) of the University of Barcelona, ES (PI: Vittoria Roncalli).
- 2017-Beatriu de Pinos, grant for the recruitment of research staff to incorporate

as postdoctoral research into Catalan Science and Technology system, University of Barcelona, ES.

- 2016-Juan de la Cierva, grant for the incorporation young researcher, supported by the Agencia Estatal de Investigación, University of Barcelona, ES.
- 2012- Mount Desert Island Biological Laboratory's David W. Towle Fellowship 2012, for the development of an individual project including experimental work performed at the MDIL laboratory, ME.
- 2008-Socrates ERASMUS fellowship at Department of Marine and Environmental Science, U. Cadiz, ES.

### *Teaching experience*

2018- Department of Genetic, Microbiology and Statistics-University of Barcelona, ES (Fall semester, undergraduate course). Instructor "Molecular Genetics"

2015- Department of Marine Biology-University of Hawai'i at Manoa, HI (Fall semester, graduate course). Co-Instructor "Transcriptomic of Non-model Eukaryotes"

2015- Department of Zoology- University of Hawai'i at Manoa, HI (Spring semester, undergraduate course). Teaching Assistant: "Introduction to Biology"

2013- Pacific Biosciences Research Center - University of Hawai'i at Manoa, HI – *Workshop* Co-Instructor "Bioinformatics of gene discovery and annotation from data to paper" for Maximizing Access to Research Careers (MARC)

### *Work experience*

2019-July 21-Aug 3 Scientist on the oceanographic cruise Ocean explores NOAA on board of the vessel "Sikuliaq" in the Gulf of Alaska (GOA)

<https://oceanexplorer.noaa.gov/explorations/19gulfofalaska/welcome.html>

2017-2018 Scientist on oceanographic cruises on board of the vessel "Tiglax" as part of a NSF project in Gulf of Alaska (GOA)

2017-2018 Visiting Scientist at University of Alaska Fairbanks (UAF)

2007-2008 Scientist on Oceanographic cruises on board of the vessel "URANIA" as part of the INTERREG project in the Adriatic Sea

### *Member of the Editorial Board of:*

Marine Genomics, Frontiers in Marine Science Marine Molecular Biology and Ecology, Integrative Comparative Biology

### *Peer-reviewer for:*

Aquaculture, Aquatic Ecology, PLoS one, Journal of Heredity, Journal of Environmental Sciences, Marine Genomics, Frontiers in Marine Science Marine Molecular Biology and Ecology, Environmental Science, Marine environmental research, Conservation Physiology, Genes

### **Other**

Member of Society for Integrative and Comparative Biology (SICB), Association for the Sciences of Limnology and Oceanography (ASLO)

### **Students' Supervision**

2019- Alba Ramon Lainez, Internal tutor for international student mobility program (ERASMUS), University of Barcelona, Biology Department

2019- Raquel Griñán González, Internal tutor for international student mobility program (ERASMUS), University of Barcelona, Biology Department

2018 to 2019-Connie Whiting, University of Barcelona, exchanging student from Manchester University, University of Barcelona, Biology Department

2018- Professor for “Tribunal de TFGs”, University of Barcelona, Biology Department

2017-Kyle Nugent, University of Hawai'i at Manoa, undergraduate student, Biology

2016- Justin Suits, University of Hawai'i at Manoa, undergraduate student, Biology

2015 Stephanie Matthews, University of Hawai'i at Manoa, undergraduate student, Marine Biology

2014-2015 Matthew C. Cieslak, University of Hawai'i at Manoa, undergraduate student, Computer Science

### **Publications**

#### *Journal articles:*

Cieslak MC, Castelfranco AM, **Roncalli V**, Lenz PH, Hartline DK (2019) t-Distributed Stochastic Neighbor Embedding (t-SNE): A tool for eco-physiological transcriptomic analysis. *Marine Genomics*, p.100723.

**Roncalli V**, Cieslak MC, Germano M, Hopcroft RR, Lenz PH (2019) Regional heterogeneity impacts gene expression in the subarctic zooplankter *Neocalanus flemingeri* in the northern Gulf of Alaska. *Communications biology* 2, 234.

Lenz PH and **Roncalli V** (2019) Diapause within the context of life history strategies in calanid copepods (Calanoida: Crustacea). *Biological Bulletin*, 237, 170-179.

Torres-Águila NP, Martí-Solans J, Ferrández-Roldán A., Almazán A, **Roncalli V**, D'Aniello S, Romano G, Palumbo A, Albalat R and Cañestro C (2018) Diatom bloom-derived biotoxins cause aberrant development and gene expression in the appendicularian chordate *Oikopleura dioica*. *Communications biology*, 1,121.

Christie AE, Yu A, **Roncalli V**, Pascual MG, Cieslak MC, Warner AN, Lameyer TJ, Stanhope ME, Dickinson PS, Hull JJ (2018) Molecular evidence for an intrinsic circadian pacemaker in the cardiac ganglion of the American lobster, *Homarus americanus*. Is diel cycling of heartbeat frequency controlled by a peripheral clock system?. *Marine genomics*, 41, 9-30.

**Roncalli V**, Sommer SA, Cieslak MC, Clarke C, Hopcroft RR, Lenz PH (2018) Physiological characterization of the emergence from diapause: a transcriptomics approach. *Scientific Reports* 8, 12577.

Christie AE, Cieslak, MC, **Roncalli V**, Lenz PH, Major K, Poynton H (2018) Prediction of *Hyalella azteca* (Crustacea; Amphipoda) peptide hormones using a *de novo* transcriptome assembly. *Marine Genomics*, 38, 67-88.

**Roncalli V**, Christie AE, Sommer SA, Cieslak MC, Hartline DK, Lenz PH (2017) A deep transcriptomic resource for the copepod crustacean *Labidocera madurae*: a potential indicator species for assessing near shore ecosystem health. *PLoS one* 10, e0186794.

**Roncalli V**, Lenz PH, Cieslak MC, Hartline DK (2017) Complementary mechanisms for neurotoxin resistance in a copepod. *Scientific Reports* 7, 14201.

**Roncalli V**, Cieslak MC, Sommer SA, Hopcroft RR, Lenz PH (2017) *De novo* transcriptome assembly of the calanoid copepod *Neocalanus flemingeri*: a new resource for emergence from diapause. *Marine Genomics*, 37, 114-119.

Porter M, Steck M, **Roncalli V**, Lenz PH (2017) Molecular characterization of copepod photoreception. *Biological Bulletin* 233, 1,96-110.

Gandler H, Stanhope M, Shea D, Christie AE, Yu A, LaMeyer T, **Roncalli V**, Cieslak MC and Dickinson P (2017) Peptidergic Modulation in the Lobster Cardiac Neuromuscular System: A transcriptomic analysis of peptides and peptide receptors in cardiac ganglion and muscle. *FASEB*, 31, 874-8.

Christie AE, **Roncalli V**, Cieslak MC, Pascual MG, Yu A, Lameyer T, Stahone MF and Dickinson PS (2017) Prediction of a neuropeptidome for the eyestalk ganglia of the lobster *Homarus americanus* using a tissue-specific *de novo* assembled transcriptome. *General and Comparative Endocrinology*, 243, 96-119.

Christie AE, **Roncalli V** and Lenz PH. (2016) Diversity of insulin-like peptide signaling system proteins in *Calanus finmarchicus* (Crustacea; Copepoda)-Possible contributors to seasonal pre-adult diapause. *General and Comparative Endocrinology*, 236, 157-173.

**Roncalli V**, Jungbluth MJ and Lenz PH (2016) Glutathione S-Transferase regulation in *Calanus finmarchicus* feeding on the toxic dinoflagellate *Alexandrium fundyense*. *PLoS one*,11, e0159563.

**Roncalli V**, Cieslak MC, Lenz PH (2016) Transcriptomic responses of the calanoid copepod *Calanus finmarchicus* to the saxitoxin producing dinoflagellate *Alexandrium fundyense*. *Scientific Reports*, 6, 25708.

Lauritano C, Romano G, **Roncalli V**, Amoresano A, Fontanarosa C, Bastianini M, Braga F, Ianora A (2016) New oxylipins produced at the end of a diatom bloom and their effect on copepod reproductive success and gene expression levels. *Harmful algae*, 55, 221-229.

**Roncalli V**, Turner JT, Kulis D, Anderson DM and Lenz PH (2016) The effect of the toxic dinoflagellate *Alexandrium fundyense* on the fitness of the calanoid copepod *Calanus finmarchicus*. *Harmful Algae*, 51, 56-66.

**Roncalli V**, Cieslak MC, Passamaneck Y, Christie AE, Lenz PH (2015) Glutathione S-transferase (GST) gene diversity in the crustacean *Calanus finmarchicus*-Contributors to cellular detoxifications. *PLoS one*,10, 5, e0123322.

Ianora A, Bastianini M, Carotenuto Y, Casotti R, **Roncalli V**, Miralto A, Turner JT (2015) Non-volatile oxylipins can render some diatom blooms more toxic for copepod reproduction. *Harmful Algae*, 44, 1-7.

Christie AE, Fontanilla TM, **Roncalli V**, Cieslak MC and Lenz PH (2014) Diffusible gas transmitter signaling in the copepod crustacean *Calanus finmarchicus*: identification of the biosynthetic enzymes of nitric oxide (NO), carbon monoxide (CO) and hydrogen sulfide (H<sub>2</sub>S) using a *de novo* assembled transcriptome. *General and Comparative Endocrinology*, 202, 76-86.

Lenz PH, **Roncalli V**, Hassett RP, Wu LS, Cieslak MC, Hartline DK and Christie AE (2014) *De novo* assembly of a transcriptome for *Calanus finmarchicus* (Crustacea, Copepoda)–the dominant zooplankton of the North Atlantic Ocean. *PloS one*, 9, e88589.

Christie AE, Fontanilla TM, **Roncalli V**, Cieslak MC and Lenz PH. (2014) Identification and developmental expression of the enzymes responsible for dopamine, histamine, octopamine and serotonin biosynthesis in the copepod crustacean *Calanus finmarchicus*. *General and Comparative Endocrinology*, 195, 28-39.

Christie AE, **Roncalli V**, Wu LS, Ganote, CL, Doak T and Lenz PH (2013) Peptidergic signaling in *Calanus finmarchicus* (Crustacea, Copepoda): *in silico* identification of putative peptide hormones and their receptors using a *de novo* assembled transcriptome. *General and Comparative Endocrinology*, 187, 117-135.

Christie AE, **Roncalli V**, Lona PB, McCool MD, King BL, Bucklin A, Hartline DK, Lenz PH (2013) *In silico* characterization of the insect diapause-associated protein couch potato (CPO) in *Calanus finmarchicus* (Crustacea: Copepoda). *Comparative Biochemistry and Physiology Part D: Genomics and Proteomics*, 8, 45-57.

Turner JT, **Roncalli V**, Ciminiello P, Dell'Aversano C, Fattorusso E, Tartaglione L and Ianora A (2012) Biogeographic effects of the Gulf of Mexico red tide dinoflagellate *Karenia brevis* on Mediterranean copepods. *Harmful Algae*, 16, 63-73.

Ianora A, Romano G, Carotenuto Y, Esposito F, **Roncalli V**, Buttino I and Miralto A (2011) Impact of the diatom oxylipin 15S-HEPE on the reproductive success of the copepod *Temora stylifera*. *Hydrobiologia*, 666, 265-275.

#### *Others*

**Roncalli V**, Cieslak MC, Lenz PH (2016) Transcriptomic responses of the calanoid copepod *Calanus finmarchicus* to the saxitoxin producing dinoflagellate *Alexandrium fundyense*. Dryad Digital Repository. pp. DOI: <http://dx.doi.org/10.5061/dryad.11978>.

**Roncalli V**. 2015. The effect of the toxic dinoflagellate *Alexandrium fundyense* on the calanoid copepod *Calanus finmarchicus*. Phd dissertation, University of Hawai'i at Manoa.10002221, ProQuest Dissertations Publishing.