

Fortunato Palma Esposito



Born in Naples (Italy) on 29/11/1988

Tel.: 0815833270

e-mail: fortunato.palmaesposito@szn.it

Skype: live:fpefortunato

Current Position: Post Doc.

Supervisor: Donatella de Pascale

Appointed on project: SECRETED

Affiliation:

Section Marine Biotechnology Department (BlueBio), Stazione Zoologica Anton Dohrn, Napoli (Italy)

Education/Training/Experience

Institute and Location	Degree / Function	Year	Field of Study
University of Naples Federico II (Naples, Italy)	Master (Laurea)	2011-2013	Industrial Biotechnology
University of Naples Federico II (Naples, Italy). Institute of Protein Biochemistry-National Research Council (Naples, Italy)	Ph.D.	2014-2018	Biotechnology
Ciaotech (PNO Group), Rome, Italy	Innovation Consultant	2018-220	Consultancy, EU grant writing and management
Stazione Zoologica Anton Dohrn, (Naples, Italy)	Postdoc	2020-Present	Marine biotechnology

Appointments and awards

3rd Transnational Access within the IBISBA 1.0 call (2021).

Project title: *GLYCOMICS*, Elucidation of Rhodococcus genes involved in the production of novel antiviral glycolipids by transcriptomics for future production optimisation.

Collaboration together with Genoscope (Fr) for the transcriptomic analysis of a promising marine bacterium

1st TNA MIRRI 21 Transnational Access Pilot Programme (2021). N° 15761

Project title: *IDEACT: IDentifying and prioritizing novel marine ACTinobacteria for drug discovery*

I worked (November 2021) at Pasteur Institute (Fr) on the identification by MALDI-TOF-MS and Whole Genome Sequencing of novel marine actinobacteria collected in Greece

EuroMarine Individual Fellowship (2021)

Objective: participation in “FEMS Summer School for Postdocs: Microbial Evolvability Mechanisms: Resistance, Biology, and Strategies to Defeat and Detect”, September 2021 (Postponed to April 2022) Croatia

ASSEMBLE Plus 8th Transnational Access call (2021). N° 13126

Project title: *TABOO: meTAbolomics of Bacterial cOcultivation for antibiOtics discovery*

Collaboration with Prof. Olivier Thomas at NUIG in Galway (Ireland) working on microbial metabolomics: microbial co-cultivation, molecular networking, LC-MS/MS

FEMS Meeting Attendance Grant (2018). N°. FEMS-GO-2018-022.

Objective: conference participation

EuroMarine Individual Fellowship (2018)

Objective: conference participation

2nd EMBRIC Transnational Access Programme (2018). N°. 5629.

Project title: *Bacteria vs Bacteria: a never-ending story*

EFSA Grant, Early Career Research Initiative (2018)

Project title: *Foodborne illness control by using marine bacteria*

Participation to the conference "Science,Food,Society" in Parma, Italy promoted by "European Food Safety Authority".

1st EMBRIC Transnational Access Programme (2018). N°. 2753.

Project title: *Learning from the metagenome: from culture-independent methods to lab cultivation*

Scholarships for PhD students to BIOPROSP_17 (2017): 8th International Conference on Marine Bioprospecting and Biotechnology Conference in Tromso, Norway. Abstract title: *Microbial communities: isolation of antimicrobial compounds by an integrated omic approach*

Travel Grant MaFNaP Conference (2017): participation in 2nd International Conference on Marine Fungal Natural Products in Kiel, Germany.

Abstract title: *Exploitation of new bioactive compounds produced by Beauveria bassiana to fight MDR bacteria*

DAAD Research Grants - Short-Term Grants (2015). N°. 57130097.

Project title: *Fighting multidrug resistant bacteria: Marine environment as a source of novel antimicrobial compounds*

Best Poster Award (IBP-CNR Scientific Retreat). December 2016

Other matters relevant to scientific career

Involved in EU funded projects:

- Project EU FP7 KBBE: Pharmasea - Exploring the Hidden Potential of the Oceans
- SECRETED H2020 FNR-11-2020: Sustainable Exploitation of bio-based Compounds Revealed and Engineered from natural sources – GA n. 101000794.
- LIFE SEDREMED (): Bioremediation of contaminated sediments in coastal areas of ex-industrial sites - LIFE20 ENV/IT/000572

Abroad experiences:

- Pasteur Institute (France), 2021
- DSMZ, German Collection of Microorganisms and Cell Cultures (Germany), 2017

- CCMAR, Centre for Marine Sciences (Portugal), 2017
- GEOMAR-Biotech, GEOMAR Centre for Marine Biotechnology (Germany), 2016
- MicroDish BV (The Netherlands), 2015

Oral presentations:

- Combining OSMAC approach and untargeted metabolomics for the identification of new microbial glycolipids with potent antiviral activity. International Summer School of Natural Products, ISSNP 2021, 4th Edition, July 6th-8th (online).
- Marine microbial biodiversity as a source of bioactive compounds. Course for PhD students at SZN: New Perspectives in Marine Biotechnology 9th – 11th December 2020 (Online)
- How to support a new company. Master BIOCIRCE: Bioeconomy in the Circular Economy. University Federico II of Naples. 10th -13th February 2020
- Learning from the metagenome: from culture-independent methods to lab cultivation. Final meeting 1st TA call of the EMBRIC Transnational Access program. January 25-26th 2018. Paris, France.
- Exploitation of new bioactive compounds produced by *Beauveria bassiana* to fight MDR bacteria. 2nd International Conference on Marine Fungal Natural Products (MaFNaP_2017). June 27-29th 2017. Kiel, Germany.
- New Antimicrobial compounds from Antarctic bacteria. PharmaSea final GA meeting. March 14th 2017. Granada, Spain.
- Evaluation of the antimicrobial potential of the Antarctic bacterium *Aequorivita* sp. isolated by the Microdish Culture Chip. MARINE MICROBIOME discovery & innovation. June 27-30th 2016. Berlin, Germany.
- Antimicrobial activity of monoramnholipids produced by bacterial strains isolated from Ross Sea (Antarctica). 47° Congresso della Società Italiana di Biologia Marina. June 13-17th 2016. Turin, Italy.

Publications

Author of 17 publications on ISI-journals

List of publications of the last 10 years

Journal Papers

- Di Cesare Mannelli, L. *, **Palma Esposito, F.** *, et al., (* Co-authors). Pharmacological Activities of Extracts and Compounds Isolated from Mediterranean Sponge Sources. *Pharmaceuticals* 2021, 14(12), 1329.
- Giugliano R, Buonocore C, Zannella C, Chianese A, **Palma Esposito F.**, Tedesco P, De Filippis A, Galdiero M, Franci G, de Pascale D. Antiviral Activity of the Rhamnolipids Mixture from the Antarctic Bacterium *Pseudomonas gessardii* M15 against Herpes Simplex Viruses and Coronaviruses. *Pharmaceutics*. 2021 Dec 8;13(12):2121. doi: 10.3390/pharmaceutics13122121. PMID: 34959400.
- **Palma Esposito, F.**; Giugliano, R.; Della Sala, G.; Vitale, G. A.; Buonocore, C.; Ausuri, J.; Galasso, C.; Coppola, D.; Franci, G.; Galdiero, M.; de Pascale, D., Combining OSMAC Approach and Untargeted Metabolomics for the Identification of New Glycolipids with Potent Antiviral Activity Produced by a Marine Rhodococcus. 2021, 22, (16), 9055.
- Ausuri, J.; Vitale, G. A.; Coppola, D.; **Palma Esposito, F.**; Buonocore, C.; de Pascale, D., Assessment of the Degradation Potential and Genomic Insights towards Phenanthrene by *Dietzia psychralcaliphila* JI1D. *Microorganisms* 2021, 9, (6).

- Tedesco, P.; **Palma Esposito, F.**; Masino, A.; Vitale, G. A.; Tortorella, E.; Poli, A.; Nicolaus, B.; van Zyl, L. J.; Trindade, M.; de Pascale, D., Isolation and Characterization of Strain Exiguobacterium sp. KRL4, a Producer of Bioactive Secondary Metabolites from a Tibetan Glacier. *Microorganisms* 2021, 9, (5).
- Coppola, D.; Lauritano, C.; **Palma Esposito, F.**; Riccio, G.; Rizzo, C.; de Pascale, D., Fish Waste: From Problem to Valuable Resource. 2021, 19, (2), 116.
- Vitale, G. A.; Coppola, D.; **Palma Esposito, F.**; Buonocore, C.; Ausuri, J.; Tortorella, E.; de Pascale, D., Antioxidant Molecules from Marine Fungi: Methodologies and Perspectives. *Antioxidants (Basel)* 2020, 9, (12), 1183.
- Buonocore, C.; Tedesco, P.; Vitale, G. A.; **Esposito, F. P.**; Giugliano, R.; Monti, M. C.; D'Auria, M. V.; de Pascale, D., Characterization of a New Mixture of Mono-Rhamnolipids Produced by *Pseudomonas gessardii* Isolated from Edmonson Point (Antarctica). *Marine drugs* 2020, 18, (5).
- Vitale, G. A.; Sciarretta, M.; **Palma Esposito, F.**; January, G. G.; Giaccio, M.; Bunk, B.; Spröer, C.; Bajerski, F.; Power, D.; Festa, C.; Monti, M. C.; D'Auria, M. V.; de Pascale, D., Genomics-Metabolomics Profiling Disclosed Marine *Vibrio spartinae* 3.6 as a Producer of a New Branched Side Chain Prodigiosin. *Journal of natural products* 2020, 83, (5), 1495-1504.
- Tortorella, E.*; Tedesco, P.*; **Palma Esposito, F.***; January, G*. G.; Fani, R.; Jaspars, M.; de Pascale, D., (* **Co-authors**). Antibiotics from Deep-Sea Microorganisms: Current Discoveries and Perspectives. *Marine drugs* 2018, 16, (10), 355.
- **Palma Esposito, F.**; Ingham, C. J.; Hurtado-Ortiz, R.; Bizet, C.; Tasdemir, D.; de Pascale, D., Isolation by Miniaturized Culture Chip of an Antarctic bacterium *Aequorivita* sp. with antimicrobial and anthelmintic activity. *Biotechnol Rep (Amst)* 2018, 20, e00281-e00281.
- Chianese, G.; **Esposito, F. P.**; Parrot, D.; Ingham, C.; de Pascale, D.; Tasdemir, D., Linear Aminolipids with Moderate Antimicrobial Activity from the Antarctic Gram-Negative Bacterium *Aequorivita* sp. *Marine drugs* 2018, 16, (6).
- Corral, P.; **Esposito, F. P.**; Tedesco, P.; Falco, A.; Tortorella, E.; Tartaglione, L.; Festa, C.; D'Auria, M. V.; Gnavi, G.; Varese, G. C.; de Pascale, D., Identification of a Sorbicillinoid-Producing *Aspergillus* Strain with Antimicrobial Activity Against *Staphylococcus aureus*: a New Polyextremophilic Marine Fungus from Barents Sea. *Marine biotechnology (New York, N.Y.)* 2018, 20, (4), 502-511.
- Gnavi, G.; **Palma Esposito, F.**; Festa, C.; Poli, A.; Tedesco, P.; Fani, R.; Monti, M. C.; de Pascale, D.; D'Auria, M. V.; Varese, G. C., The antimicrobial potential of algicolous marine fungi for counteracting multidrug-resistant bacteria: phylogenetic diversity and chemical profiling. *Research in microbiology* 2016, 167, (6), 492-500.
- Tedesco, P.; Maida, I.; **Palma Esposito, F.**; Tortorella, E.; Subko, K.; Ezeofor, C. C.; Zhang, Y.; Tabudravu, J.; Jaspars, M.; Fani, R.; de Pascale, D., Antimicrobial Activity of Monoramnholipids Produced by Bacterial Strains Isolated from the Ross Sea (Antarctica). *Marine drugs* 2016, 14, (5).
- Barone, R.*; De Santi*, C.; **Palma Esposito***, F.; Tedesco*, P.; Galati, F.; Visone, M.; Di Scala, A.; De Pascale, D., (* **Co-authors**) Marine metagenomics, a valuable tool for enzymes and bioactive compounds discovery. 2014, 1, (38).
- Tedesco, P.; Di Schiavi, E.; **Esposito, F. P.**; de Pascale, D., Evaluation of *Burkholderia cepacia* Complex Bacteria Pathogenicity Using *Caenorhabditis elegans*. *Bio Protoc* 2016, 6, (20), e1964