Dr. MARIA PAPADATOU

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I am a microbial ecologist/oceanographer with expertise upon the application of molecular tools to decipher the environmental microbial diversity and activity. My research interests lie on the response of microbial fouling (biofouling) on antifouling applications, microbe-driven marine carbon cycling and ecosystem-level assessment of pesticides toxicity on soil microorganisms.

Education

20/09/2016 – **23/11/2020**: Doctor of Philosophy (**PhD**) in **Environmental Microbiology**, University of Portsmouth, Portsmouth (*United Kingdom*). Thesis title: «Understanding marine biofilm formation on artificial and antifouling surfaces».

23/09/2011 – 27/06/2013: Erasmus Mundus Master of Science (MSc) in Marine Biodiversity and Conservation, Year 1: Ghent University, Ghent (*Belgium*), Year 2: University Pierre et Marie Curie (Paris VI); Villefranche-sur-Mer & Roscoff (*France*). Thesis title: «Bacterial diversity associated with anthropogenic particles and neuston in the surface layer of the East Atlantic Ocean» implemented at the Max Planck Institute for Marine Microbiology, Bremen (*Germany*).

01/09/2006 – **21/06/2012**: Bachelor of Science (**BSc**) in **Marine Science**, University of the Aegean, Lesvos (*Greece*). Thesis title: «Examining the fungal concentration in recreational beach sand before and after precipitation».

Professional Experience

01/05/2022 - present: Postdoctoral Fellow in Environmental Microbiology, Department of Biochemistry and Biotechnology, University of Thessaly (*Greece*). Project: «ReASSESS - Revolutionizing the assessment of the toxicity of pesticides on soil microorganisms: from single species tests to ecosystem approaches».

01/04/2022 - present: Visiting Researcher/ Grantee of the FEMS Research & Training Grant, Computer Science Department, University of Tübingen (*Germany*). Project: « Exploring and optimising bioinformatics tools of RNA-Seq data analysis for providing robust insights into active marine microbial communities on antifouling coatings».

01/12/2020 – **31/03/2022**: Remote work including PhD manuscripts preparation (1st paper submitted in May 2021, 2nd in January 2022), analysis of data collected upon PhD completion, proposal preparation for Postdoctoral Fellowships (*Simons PF in Marine Microbial Ecology* submitted in May 2021, *MSCA* PF submitted in October 2021).

14/02/2019 – 20/12/2020: UKVI Invigilator Staff, British Council, Portsmouth (*United Kingdom*).

01/11/2016 – **30/03/2020**: Research Assistant, School of Biological Sciences, University of Portsmouth (*United Kingdom*). As part of the PhD Fellowship, I had weekly contribution as a teaching and demonstrator assistant in practical laboratories coordinated my academic staff at the Department of Biological Sciences.

01/10/2016 – 30/09/2019: Open Day Science Demonstrator, University of Portsmouth (*United Kingdom*). Scientific demonstration of my research work to perspective undergraduate students and their parents in the laboratory facilities.

03/11/2014 – 15/02/2016: Direct Dialogue Fundraiser, WWF Greece, Athens (*Greece*)

01/06/2014 - 31/08/2014: Certified Lifeguard, Blue Flag awarded Ammes beach, Kefalonia (Greece)

Professional Activity

2019 – present: Reviewer for Biofouling (*Taylor & Francis*).

2018 – **2020**: Founder and Coordinator of the Postgraduate Biological Society (PBioSoc), University of Portsmouth (*United Kingdom*).

Research Experience – Training

03/2014: 1st African Discovery Camp (RNGO) of the Regional Graduate Network in Oceanography, Postgraduate Research Training on Microbial and Geochemical Oceanography in Upwelling Ecosystems. RV *Mirabilis* Expedition MOM/RGNO-0314 & Sam Nujoma Marine and Coastal Resources Research Centre of the University of Namibia (*Namibia*). Project title: "Physiological study on the growth and nitrate uptake of *Thiomargarita*".

07/2013: Summer Course on Environmental Life Sciences Engineering. Singapore Centre on Environmental Life Sciences Engineering (SCELSE) (*Singapore*).

10-12/2012: European Universities & Research Onboard *Polarstern* in the Atlantic (EUROPA): Pelagic Biodiversity of the Atlantic Ocean. RV *Polarstern* Expedition ANT-XXIX/1, Bremerhaven (*Germany*) to Cape Town (*South Africa*). Project title: "Biodiversity and activity of microbial biofilms in niches in the ocean".

07/2012: Erasmus Mundus Master of Science (EMBC) Summer School. Marine Biology Station Piran (*Slovenia*). Project title: "Assessing marine litter and microplastics along the coast of Slovenia".

04-06/2012: EMBC Research Internship. Laboratory of Environmental Toxicology and Aquatic Ecology, Ghent University (*Belgium*). Project title: "Examining the effect of CU in mussels from the Adriatic and Baltic Seas".

03–08/2011: Undergraduate Erasmus Placement. Microbial Oceanography Laboratory, Observatoire Océanologique de Banyuls sur mer (*France*). Project title: "Screening a subset of a large collection of marine bacteria for proteorhodopsin (PR) coding genes".

Publications

Google scholar: 349 citations, h-index = 3; Scopus: 264 citations, h-index = 2; Web of Science: 236 citations, h-index = 2

Published/Peer-reviewed

- **Papadatou, M.**, Robson, S.C., Dobretsov, S., Watts, J.E.M., Longyear, J., Salta, M. (2021). Marine biofilms on different fouling control coating types reveal differences in microbial community composition and abundance. *MicrobiologyOpen*, 10: e1231. https://doi.org/10.1002/mbo3.1231.
- Laglbauer, B.J.L., Franco-Santos, R.M., Andreu-Cazenave, M., Brunelli, L., **Papadatou, M.**, Palatinus, A., Grego, M., Deprez, T. (2014). Macrodebris and microplastics from beaches in Slovenia. *Marine Pollution Bulletin*, 89(1-2): 356-366. https://doi.org/10.1016/j.marpolbul.2014.09.036.
- Courties, A., Riedel, T., Jarek, M., **Papadatou, M.**, Intertaglia, L., Lebaron, P., Suzuki, M.T. (2014). Draft genome sequence of the gammaproteobacterial strain MOLA455, a representative of a ubiquitous proteorhodopsin-producing group in the ocean. *Genome Announcements*, 2(1): e01203-13. https://doi.org/10.1128/genomeA.01203-13.

Under review/ In preparation

- **Papadatou, M.**, Knight, M., Salta, M. High-throughput method development for *in situ* quantification of aquatic phototrophic biofilms. Status: Under review in *Biofouling*.
- **Papadatou, M.**, Dobretsov, S. Biofilms on marine antifouling coatings: specificity and microbially-induced effects. Status: In preparation for *Environmental Microbiology*.
- **Papadatou, M.**, Robson, S., Salta, M., Dobretsov, S., Gautam, A., Huson, D. Comparison of marine biofilm taxonomic profiles between metatranscriptomics and amplicon sequencing analyses. Status: In preparation for *FEMS Microbiology Ecology*.
- **Papadatou, M.**, Robson, S., Dobretsov, S., Salta, M. Biofilm transcriptomes on marine antifouling coatings are hot spots of metal and antibiotic resistance genes. Status: In preparation for *Nature Microbiology*.

Conferences

Papadatou, M., Robson, S.C, Dobretsov, S., Watts, J.E.M., Longyear, J., Salta, M. The effect of fouling control coating type on the development of marine biofilm communities in the Solent UK. <u>Paper</u> presented at: 9th Conference of MIKROBIOKOSMOS. 2021 December 16-18; Athens, Greece. https://www.mikrobiokosmos2021.org/articlefiles/MIKROBIOKOSMOS PROGRAM 2021 low 20 12.pdf

Papadatou, M., Robson, S., Watts, J., Dobretsov, S., Salta, M. Functionality and composition of marine biofilms on antifouling coatings. <u>Paper</u> presented at: Biofilms 9 conference. 2020 September 29-1 October; Karlsruhe, Germany. https://doi.org/10.5194/biofilms9-117

Papadatou, M., Robson, S., Watts, J., Dobretsov, S., Salta M. Functionality of marine biofilm communities isolated from antifouling coatings. <u>Paper</u> presented at: 6th European Congress on Biofilms "Eurobiofilms 2019". 2019 September 3-6; Glasgow, Scotland, UK.

Papadatou, M., Harder, J. Bacterial diversity associated with anthropogenic particles and neuston in the surface layer of the East Atlantic Ocean. <u>Paper</u> presented at: In the Wake of Plastics Conference. 2015 October 13-15; Venice, Italy.

Papadatou, M., Harder, J. Bacterial diversity associated with anthropogenic particles and neuston in the surface layer of the East Atlantic Ocean. <u>Paper</u> presented at: 11th Panhellenic Symposium of Oceanography & Fisheries "Aquatic Horizons: Challenges & Perspectives". 2015 May 13-17; Mytilene, Lesvos Island, Greece. https://okeanos-dspace.hcmr.gr/bitstream/handle/123456789/2604/PanhellSympOceanFish11(561-564)2015..pdf?sequence=1.

Papadatou, M., Laglbauer, B.J.L., Franco-Santos, R.M., Andreu-Cazenave, M., Brunelli, L., Palatinus, A., Grego, M., Deprez, T. Microplastics from beaches in Slovenia. <u>Poster</u> presented at: 2015 Welch Symposium "Plastic GYRE: Artists, Scientists and Activists Respond". 2015 March 26-27; Atlanta, Georgia, USA.

Prizes & Awards

03/2022: HORIZON-MSCA-2021-PF-01 (HORIZON Marie Skłodowska-Curie Actions Postdoctoral Fellowships 2021), *MIMEPOC*: *MIcrobially MEdiated Particulate Organic Carbon flux - 101064476*. European Commission. Budget: €199,440.96.

09/2020: FEMS Research and Training Grant, *FEMS-GO-2020-217*. Federation of European Microbiological Societies (FEMS). Budget: €4,000.

09/2020: Travel Grant for Course attendance, *GA002491*. Microbiology Society (*United Kingdom*). Budget: £473.

05/2020: FEMS Meeting Attendance Grant, *FEMS-GO-2020-083*. Federation of European Microbiological Societies (FEMS). Budget: $\underline{\epsilon}500$.

02/2020: Junior Scientist Conference Grant. Genetics Society (*United Kingdom*). Budget: £750.

01/2014: Course Grant, Microbial and Geochemical Oceanography in Upwelling Ecosystems. Regional Research Graduate Network in Oceanography (RNGO). Budget: <u>NAD \$19,580</u>.

05/2013: Course Grant, International summer course in Environmental Life Sciences Engineering. Singapore Centre on Environmental Life Sciences Engineering (SCELSE) (*Singapore*). Budget: <u>SGD \$1,600</u>.

Scholarships

2016 – **2020**: Postgraduate PhD Research Studentship (maintenance & tuition fees). University of Portsmouth (*United Kingdom*). Budget: £43,638. PhD Studentship (extension). Budget: £3,752.

01/2019: Science Faculty PGR Placement Scheme. University of Portsmouth (*United Kingdom*). Budget: £500.

2013: EMBC Excellence & Mobility Grants. Ghent University (*Belgium*). Budget: €2,700.

2011: Erasmus Student Mobility Placement. University of the Aegean (*Greece*). Budget: €3,600.

2007 – **2009**: Annual BSc Excellence awards. Greek State Scholarships Foundation (IKY) (*Greece*). Budget: €3000.

Supervising & Mentoring

2016 – **2020**: Demonstrator at the Course practicals of Environmental Microbiology and General Biology. University of Portsmouth (*United Kingdom*).

2016 – **2019**: Joint supervision and mentoring of three Bachelor students. University of Portsmouth (*United Kingdom*).

2016 – **2017**: Joint supervision of Master student Mollie Knight for her thesis project "Quantification of spatial and temporal variability in marine biofilms in the Solent, UK". University of Portsmouth (*United Kingdom*).

Workshops

09–16/12/2020: "Introduction to Python for Biologists". Edinburgh Genomics, The University of Edinburgh.

05/10/2020: CZI-CABANA Microbiome Bioinformatics with QIIME 2. QIIME 2 Team.

26/07/2019: Correlation and Regression in *R*. DataCamp.

12/08/2019: RNA-Seq Differential Expression Analysis with Bioconductor in R. DataCamp.

27–31/05/2019: "Metagenomics, metatranscriptomics, and multi'omics for microbial community studies". Physalia-courses, Free University of Berlin (*Germany*).

03/09/2019: Bioinformatics workshop. Eurobiofilms 2019 conference.

2017: Graduate Students' Professional Development (GPROF). Apex Foundation Pathway (*United Kingdom*).

2012: University Curriculum in Marine Data Management. International Oceanographic Data and Information Exchange (IODE) & UNESCO (*Belgium*).

Memberships

2019 – present: Member of Microbiology Society (*London GB*)

2019 – present: Member of Society for Applied Microbiology (*London GB*)

2020 – 2021: Member of International Society for Microbial Ecology (ISME) (Arnhem NL)

2019 – 2021: Member of Genetics Society (London GB)

2019 – 2021: Member of International Biodeterioration Biodegradation Society (IBBS) (Manchester GB)

Professional Licenses & Certifications

09/09/2021: Registration and Licensing to practice Geotechnical Profession of Ichthyologist (*A831/09-09-2021*). Hellenic Geotechnical Chamber (GEOTEE) (*Greece*).

13/06/2014: Lifeguard License. Hellenic Lifesaving School (PASHNA) (Greece).

13/09/2011: Speed Boat Operators' License. Port Authority (*Greece*).

2010: First Aid Responder (CPR inclusive). EMP Medic First Aid.

2009: Rescue Diver, EFR-Primary Care (CPR), Sec Care (1st aid). Professional Association of Diving Instructors (PADI).

26/09/2006: Driving license (A and B Categories). Hellenic Ministry of Transport and Communications.