

BlueRemediomics: European project launched to harness the vast potential of marine microbial resources

Press Release: 2 February 2023

A new European research project was recently launched which aims to leverage the untapped potential of marine microbial resources. The marine microbiome is one of the fastest growing segments of the blue bioeconomy, and its study is vital for the discovery, understanding, protection and utilisation of our ocean resources. **BlueRemediomics** will develop novel tools and approaches to explore marine microbiome data, uniting an international consortium of experts that will work on the discovery and production of high value sustainable marine microbiome-based products, processes and services.

BlueRemediomics will systematically catalogue marine microbiome data and marine culture collections to facilitate the development of industrial processes that reduce waste, increase the reuse of natural products and by-products, and improve aquaculture processes. The project simultaneously aims to ensure equitable access to and sharing of benefits derived from any new products, such as new medicines or cosmeceuticals. It will also gauge the societal appetite for biobased solutions.

“Marine microbes have evolved to exploit and reuse both natural and artificial resources that they encounter in their relatively nutrient-poor environment. This can be as simple as a single enzyme, or involve a series of processes involving different species,” said coordinator [Rob Finn, Microbiome Informatics Team Leader and MGnify PI at EMBL-EBI](#). “The **BlueRemediomics** project will exploit existing data to help identify such processes and enable us to derive new biobased solutions for reducing waste or for bioremediation.”

A key aim of the project is to develop an open access biodiscovery platform to integrate microbiome data, and to enrich this data with functional information to facilitate its exploration for potential biological products. The project will also develop innovative approaches for the isolation and growth of these microorganisms to further enable such exploration.

“Marine microbial communities represent a vast unexploited treasure trove of bioresources that have the potential to strengthen the European blue economy,” said [Chris Bowler, Director of Research at CNRS](#), co-coordinator of the project. “For example, to safely carry out aquaculture – the farming of our oceans – it is vital that we expand our understanding of the roles played by marine microbes for ocean health. The **BlueRemediomics** project will establish a Microbiome Health Index for monitoring marine environments, thus allowing us to promote healthy microbiome approaches and strategies in aquaculture in line with the ‘do no significant harm’ principle”.

The project was awarded €7.65 million under the latest [Horizon Europe Research and Innovation funding programme](#) with an additional €1.54 million in Associated Partner funding provided by [UK Research and Innovation \(UKRI\)](#) and [Swiss State Secretariat for Education, Research and Innovation \(SERI\)](#).

BlueRemediomics launched on 1st December 2022 and will run for four years.

To keep up to date with the project, please visit twitter.com/BlueRemediomics. A website for the project is coming soon.

Notes for Editors

About BlueRemediomics

BlueRemediomics ("*BlueRemediomics: Harnessing the marine microbiome for novel sustainable biogenics and ecosystem services*") is a research and innovation action funded under the European Union's Horizon Europe Programme, grant No. 101082304. The project will run for 4 years from December 2022 to November 2026, with a total budget of €9.19 million and EU contribution of almost €7.65 million. The remaining project funding (over €1.54 million) comes from UK Research and Innovation (UKRI) to support the role of the UK partners: University College London, University of Cambridge, and University of Aberdeen, and from the Swiss State Secretariat for Education, Research and Innovation (SERI) to support the role of the Swiss Federal Institute of Technology in Zurich.

Follow us on Twitter: twitter.com/BlueRemediomics

Project website (coming soon): <http://blueremediomics.eu>

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BlueRemediomics Partners

1. European Molecular Biology Laboratory (EMBL) (Germany)
2. Centre National de la Recherche Scientifique (CNRS) (France)
3. Sorbonne Université (France)
4. Commissariat à l'énergie atomique et aux énergies alternatives (France)
5. Institut Français de recherche pour l'exploitation de la mer (Ifremer) (France)
6. European Marine Biological Resource Centre – European Research Infrastructure Consortium (EMBRC – ERIC) (France)
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**UK Research
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