# Press Release

## H2020 funded INMARE project starts

- **CLIB2021 and members in consortium with over 20 partners**
- **Researchers to trawl ocean 'biodiversity hot-spots' for new biotechnology resources**

*14 Apr 2015*

INMARE is a new project funded under the Horizon2020 EU programme. Industrial Applications of Marine Enzymes: innovative screening and expression platforms to discover and use the functional protein diversity from the sea. This is the aim of the over 20 partners from 12 countries, among them CLIB2021 and the CLIB members Bayer Technology Services, evocatal and the University of Düsseldorf. The four-year project has a budget of 6 million euros and will be coordinated by the University of Bangor, Wales, UK.

Marine environments represent the largest diversity of untapped genes, enzymes and natural products which could be of use to industry. Microbes which survive in extreme marine habitats with high pressure, salinity or temperature could provide enzymes able to perform in industrial settings under harsh physical and chemical conditions.

The consortium will mine for newly discovered microbial enzymes and metabolites, and apply them in particular for the targeted production of fine chemicals, environmental clean-up technologies and anti-cancer drugs. INMARE's industrial focus comes via the innovative screening programmes for enzymes, and bioinformatics-based gene discovery, and will include both development and demonstration of innovative technologies.

Dr. Thomas Schwarz, Chairman of CLIB2021: "We see the great potential of marine biotechnology – the discovery of new enzymes and active chemicals. CLIB as an enabling network will focus on realising this potential. We will use our expertise and network to transfer technologies from research to industry, foster patent applications and an active start-up culture within the consortium. We want to ensure that inventions become innovations."

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**CLIB$^{2021}$** is the competent network for industrial biotechnology with a strong base in the German Federal State of NRW and a strong international network. Founded 2007 in Düsseldorf, the cluster now counts about 100 members from academia, small and medium sized enterprises and the chemical industry. CLIB2021 organises its international collaborations and projects via four international offices in Canada, Russia, Brazil, and Malaysia.

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INMARE Partners

| **Participant organisation name** | **Country** |
|---|---|
| School of Biological Sciences, Bangor University<br>(Coordinators, Prof. Peter Golyshin, Dr. Olga Golyshina) | GB |
| Faculty of Chemical Engineering, University of Toronto | CA |
| INOFEA Ltd. | CH |
| University of Applied Sciences and Arts, Northwestern Switzerland | CH |
| Bayer Technology Services GmbH | DE |
| Biozentrum Klein Flottbeck, University of Hamburg | DE |
| Cluster Industrial Biotechnology 2021 e.V. (CLIB2021) | DE |
| evocatal GmbH | DE |
| Institute of Molecular Enzyme Technology, Heinrich Heine University of Düsseldorf | DE |
| Jacobs University, Bremen | DE |
| Novozymes A/S | DK |
| Agencia Estatal Consejo Superior de Investigaciones Científicas (CSIC):<br>- *Institute of Catalysis, Madrid*<br>- *Institute of Agrochemistry and Food Technology, Valencia*<br>- *Centre of Molecular Biology Severo Ochoa, Madrid* | ES |
| Pharma Mar S.A. | ES |
| London School of Economics, London | GB |
| Seascape Consultants Ltd. | GB |
| School of Environmental Engineering, Technical University of Crete | GR |
| BIOMERIT Research Centre, National University of Ireland, Cork | IE |
| Alma Mater Studiorum Università di Bologna | IT |
| Consiglio Nazionale delle Ricerche (CNR):<br>- *Institute of Experimental Oceanography, Messina*<br>- *Institute of Bioenergetics and Biomembranes, Bari* | IT |
| Institute of Biochemistry, Vilnius University | LT |
| Centre for Geobiology, University of Bergen | NO |
| Uni Research Centre for Applied Biology, Bergen | NO |
| Institute of Biotechnology and Bioengineering,<br>Associação do Instituto Superior Técnico para a Investigação e Desenvolvimento, Lisbon | PT |

The companies involved in the project such as Bayer and Novozymes and others are market leaders in enzyme production and biocatalysis to more efficiently deliver safer (pharmaceuticals), cheaper (agriculture) and biobased (biopolymers) products. In addition, all participating companies feel responsible and committed to render chemical processes greener. Further industrial partners involved have impressive track records in natural products discovery for biomedical, especially anti-cancer (PharmaMar) with the production of the first antitumor medicine from *marine* resources), environmental clean-up applications (INOFEA), biocatalysis for fine chemicals (evocatal GmbH) and public dissemination of science and in increasing the public awareness and interest in research and fostering links of academia with industry (Seascape Consultants and CLIB2021).