



The Beaufort Marine Biodiscovery Project

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[Interim Programme PI]





Initial Capacity Building

Funding of €7.2m over 7 years (2008-2015)

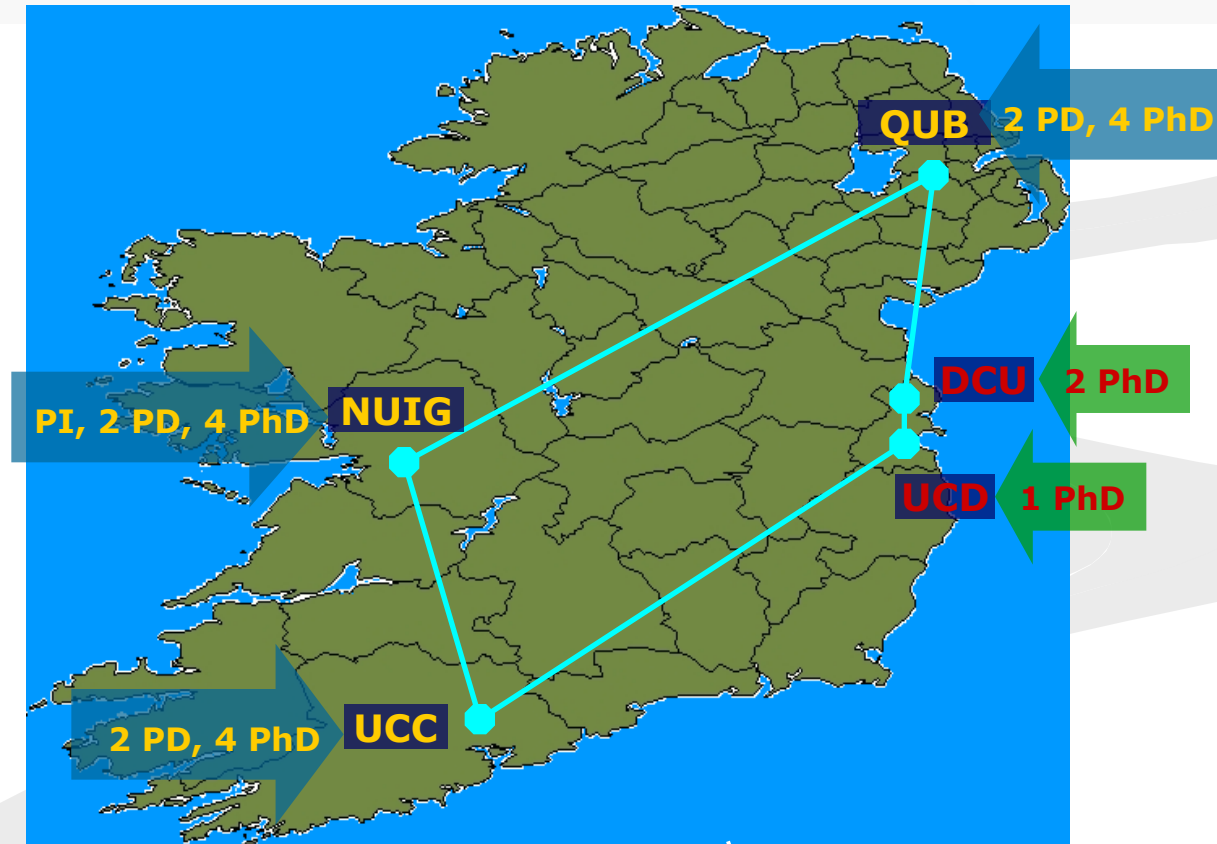
to NUIG, UCC and QUB.

12 PhD students; 6 PDs; 1 PI.

(3 PIs QUB; 2 PIs UCC; 1PI NUIG)

■ Marine Institute/IRCSET funding to DCU and UCD.

Implementation of Marine Biodiscovery Programme





OÉ Gaillimh
NUI Galway



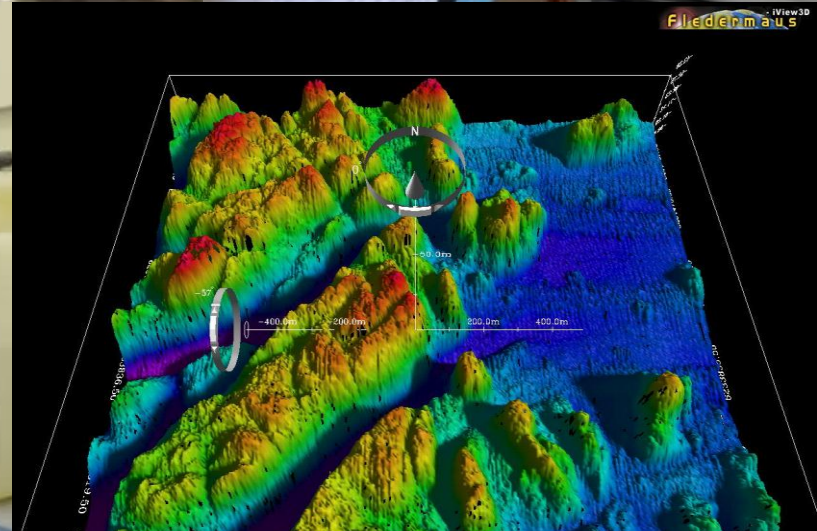
Queen's University
Belfast



UCC
Coláiste na hOllscoile Corcaigh, Éire
University College Cork, Ireland

Beaufort Marine Biodiscovery Work Programme

- Mapping and genetic characterisation of Ireland's marine biodiversity (WP1).
- Sampling, extraction and identification of biochemical components (WP2).
- Screening and culturing process for isolation of bioactive compounds (WP3).
- Application of research results into generation of new biomaterials, compounds and agents (WP4).
- Integrated data management system (WP5).
- Educational, outreach and technology transfer (WP6).



Specific Project Objectives

- Create a strong interdisciplinary research capacity in NUIG, UCC and QUB in the utilization of marine biodiversity, through application of novel high-throughput techniques in the development of drugs, therapies and biomaterials.
- Develop core research expertise and capacity in the sampling, taxonomy, processing and preservation of marine organisms for biodiscovery research.
- Develop applied research capabilities for the isolation and identification of novel marine bioactive compounds (e.g. adhesives, anti-biofilm and antimicrobial compounds) for use in the biomedical industry.
- Develop an integrated management system for data collection, tracking and archival of biochemical and microbiological products/compounds extracted from marine organisms.
- Support opportunities for further national and international scientific collaboration and attract additional research funding through partnerships with other agencies, institutions and industry
- Promote Ireland as an international partner in marine biodiscovery research using applied biochemical and microbiological processes to develop high value marine nutritional, biomedical and bioactive products.

Overall Outputs to Date (08-12)

- 18 Researchers recruited (12 PhDs + 6 PDs).
- >40 Peer Reviewed publications, 5 Book Chapters.
- >80 Presentations/Posters.
- 3 Invention disclosures, 1 patent application.
- Developed core competencies in Taxonomy, Metagenomics, Screening Technologies, Natural Products Chemistry and Biomaterials.
- Developed linkages with Marine Functional Food project (NUTRAMARA).
- Additional funding has been leveraged (National and EU).



<http://www.pharma-sea.eu/>

Increasing Value and Flow in the Marine Biodiscovery Pipeline

Marcel Jaspars, Aberdeen University, UK.



<http://www.microb3.eu/>

Biodiversity, Bioinformatics, Biotechnology

Frank Oliver Glöckner, Bremen, Germany.

**Marine Microorganisms: Cultivation Methods
for Improving their Biotchnological
Applications**

www.macumbaproject.eu

Lucas Stal, NIOZ, The Netherlands.

