EMBRIC Newsletter



EMBRIC News



Connecting the blue biotechnology actors

Marine biotechnology research institutes are often located in peripheral maritime regions, usually far from major knowledge centres. One of the goals of EMBRIC is to mitigate the geographical and technical isolation of maritime research organisations and networks by connecting them with important research clusters.

To achieve this, the EMBRIC project first analyses the interactions and impact of EMBRIC research centres: "We want to see how well the regional maritime clusters are already connected to the global blue biotechnology network and learn about their impact in the region" says Antoine Schoen from ESIEE Paris. Taking the Roscoff Marine Station in Brittany, France as a test case, it becomes visible that while the publications involve world-wide collaborations, the technological output – in the form of patent authoring – is strongly anchored in the regional environment.

Another important task is the creation of a technology transfer (TT) community among EMBRIC partners to simplify TT processes. "Our goal is to ensure that research knowledge is transferred into products and services for society" highlights Pierre Colas from the Roscoff Marine Station. Last but not least, the added value of EMBRIC blue biotechnology projects is analysed to draw lessons that may lead to best practices.

For more information, please have a look at the work of Work Package 5 or get in touch with Pierre Colas (colas@sb-roscoff.fr).

Work Package 5



Feeding the world

Worldwide aquaculture is growing at 7% per annum and more than half of all seafood is now farmed. In contrast, aquaculture production within the European Union has been static for more than a decade. From an EMBRIC point of view, genetic selection can make a significant contribution as to increase production and nourish more people.

It can help to mitigate bottlenecks associated with growth, disease and quality. Recently, estimations have shown that only 10-15% of world production uses modern genetic selection methods in their breeding programs. "We are at a pivotal moment in the development of the aquaculture industry with major scientific advances in sequencing technology and genomics that may well revolutionise the breeding of finfish and shellfish" emphasizes Ian Johnston from the University of St. Andrews.

Work within EMBRIC concentrates on the major aspects of breeding programs including trait measurements (standards, ontologies and new methodologies), genomic resources (particularly for shellfish were resource provision lags behind finfish) and genetic marker discovery pipelines (pedigree reconstruction, marker assisted selection, genome resequencing and Copy Number Variant (CNV) detection). Finally, EMBRIC has established a Company Forum comprising over 30 companies to bring together the academic and industry communities.

One achievements up to this date has been a published pipeline of pedigree reconstruction that has been commercialised and used to design SNP panels for companies farming Meagre in France and sea bream in Greece. At the next Company Forum event, a workshop on "Advances in Aquaculture Genetics: North meets South" is planned for in Bergen in May 2018.

For more information, please have a look at the work of Work Package 8 or get in touch with Ian Johnston (iaj@st-andrews.ac.uk).

Work Package 8

Results, results, results

EMBRIC started in 2015 and has since then published various interesting results. If you want more insights and see what has been accomplished so far, please have a look here.

Best Practice Methods for Biological Resource Centres



Best practice with culture collections

Biological Resource Centres supply the resources for biotechnology research and

Configurator service available for the EMBRIC community

Understanding the complex blue bioeconomy landscape

The EMBRIC Configurator was conceived to assist marine biotechnology

development. In the context of EMBRIC, two key Research Infrastructures are responsible for maintaining and supplying marine organisms. To ensure an excellent quality, culture collections have established quality management systems based on best practice. This work looks at and evaluates the different approaches.

around biological data. You can use the configurator to find out how the currently existing infrastructure can help you accomplish your work.

professionals in making the most effective use of existing informatics resources

Read the report

Get to know the configurator

Call for training opportunities in marine biotechnology innovation, open now!



The European Marine Biological Research Infrastructure Cluster (EMBRIC) launches its 3rd call for training opportunities to provide organising parties an extra incentive and financial support to organise, host and participate in knowledge exchange, best practice and technology transfer in marine biotechnology innovation.

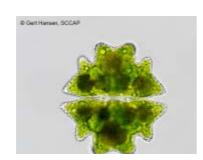
- Do you wish to contribute to the blue bio-economy domain?
- Do you prefer concise proposal submissions?
- Do you have know-how, but no initiating capital for such initiatives?

Then:

- Apply now for an EMBRIC training opportunity funding up to 3500€
- Contact an EMBRIC partner as co-organiser
- Submit online before 7 December 2017

For guidelines and proposal submission: www.embric.eu/trainingcall

Upcoming events



Microalgae forum

Under the EMBRIC project, a Company Forum for industries that incorporate microalgae into their value chain is being developed. The objective: to raise awareness of the capacity of European Research Infrastructures to support the community with the provision of biological and computational resources, knowledge and training.

The EMBRIC Microalgae Company Forum offers to help the industrial community to exploit the microalgae richness by a) giving support in the set-up of bio-assays to identify novel bioactive compounds b) giving access to compound libraries and c) proposing cutting-edge technologies for the genetic manipulation of some model species. By linking complementary expertise in biology, analytical chemistry and genetic engineering at multiple Research Infrastructures, EMBRIC can provide the blue biotechnology community with the required resources to promote innovation in the field.

Microalgae Company Forum

AlgaEurope 2017 Conference 5-7th December 2017 Berlin, Germany

Other upcoming EMBRIC events:

- EU-PRO and Territorial Embedding Workshop: 08 09 November 2017 at the Austrian Institute of Technology, Vienna, Austria
- EMBRIC Symposium "Successful roads from organisms to molecular tools": 22-23 March 2018 in Berlin (Campus Berlin Buch)
- Workshop "Advances in Aquaculture Genetics: North meets South" planned for in Bergen in May 2018.

EMBRIC project http://www.embric.eu/







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