

From Concarneau 2009
to
Europabio

Blue Biotechnology Working Group

EBBWG August 2010

Torger Børresen, National Food Institute, DK

Background

- In September 2009, the Marine Station of Concarneau marked its 150th anniversary (1859- 2009) in organizing a week-long conference dedicated to advances in marine biotechnologies
- This conference attracted an international audience
- At the end of the week, a one-day round table gathered more than one hundred participants, a large part of them coming from the private industry
- This forum common to researchers and industrialists has been a really great success

Background

- As a matter of fact, the success of this forum enlightened the real and urgent need for the S&T community to go more in depth in the vast, specific and relatively new domain of marine biotechnologies
- The purpose is to create a working group able to organize annual meetings and other actions for continuing talks among industry and science under a similar form
- This idea is supported by MNHN in France and the proposal to create a “Europabio Blue Biotechnology Working Group” was approved by Europabio
- It is also supported by a Think Tank “Baltic Med Workshop”

Ongoing Blue Biotech strategy work in Europe

Ongoing strategy work

- KBBE-net in the EU established a working group on Marine Biotechnology – CWG-MB – Scoping paper delivered October 2009
- A call for a preparatory action for an ERA-net to be published in the summer of 2010
- Marine Board of ESF presently updating the European Marine Strategy Paper (2001) to be published September 2010
- Several European countries have intensified research on Blue Biotech nationally by launching research strategies and specific programmes
- Conferences: ESF-COST conference 20-25 June 2010

KBBE-net Scoping Paper



KBBE-net Scoping Paper – summary of recommendations

- **Marine bioprospecting/biodiscovery**
- **Robust biotechnology based R&D tools**
- **Molecular aquaculture**
- **Biomass production for bioenergy and fine chemicals**

FP7 Work programme 2011

KBBE.2011.3.2-01: Marine biotechnology ERA-NET preparatory action

Call: FP7-KBBE-2011-5

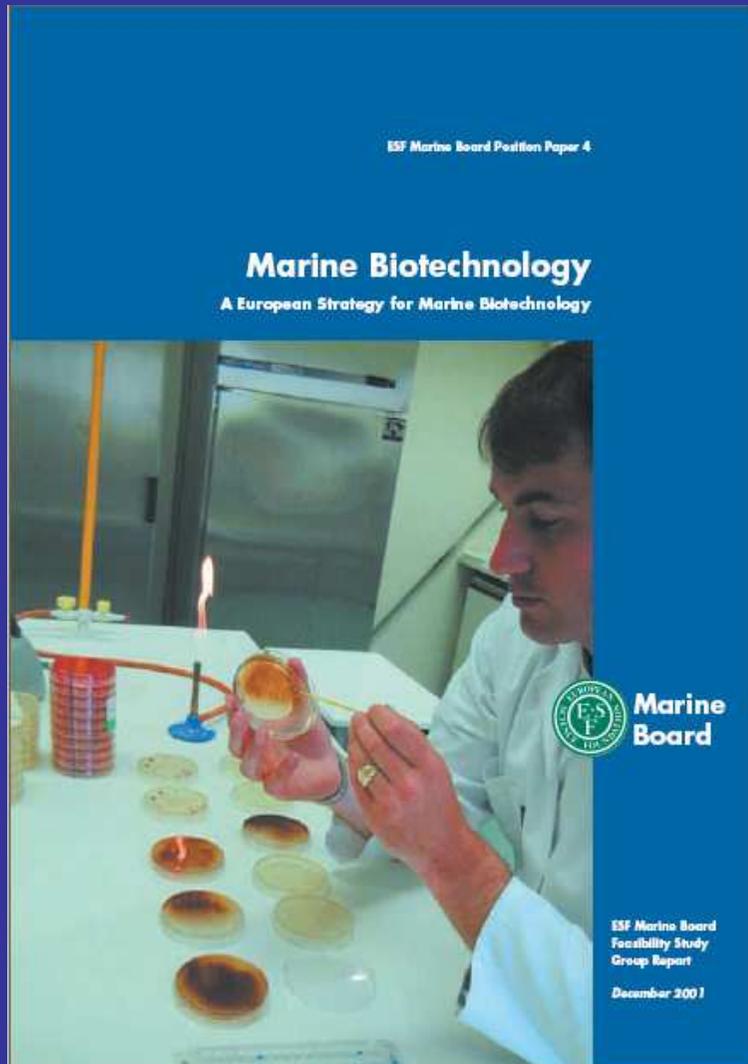
Cooperation between European research funding bodies in the area of Marine Biotechnology started in FP7 under the umbrella of the KBBE-NET high-level group. Building upon this group's conclusions, the overall aim of the CSA is to provide the basis for a successful forum for the exchange of information between Member States, and initiate the process of identifying research complementarities, thus creating a basis for developing future joint, transnational calls. The consortium should expand the partnership of the previous KBBE-NET Marine biotechnology working group to include more funding agencies of the different member states. In addition complementarities with other relevant European initiatives are sought, including establishing interactions with relevant ERA-NETs and ETPs. It is expected that the opportunity for future global initiatives in the area marine biotechnology will also be analysed.

Funding scheme: Coordination and Support Action (coordinating action). The requested European Union contribution shall not exceed EUR 1 million.

Additional information: This topic is expected to contribute to the active participation of relevant partners from the enlarged European Union and Candidate countries.

Expected impacts: It is expected that this proposal will consolidate the basis for further coordination efforts in the area of Marine Biotechnology; seek for complementarities between national activities, and start pooling resources for funding and implementing future research activities in a synergistic manner.

Strategy Paper ESF Marine Biotechnology



WORKING GROUP MEMBERS

Name	Organisation	Email
QUERELLOU, JOEL - CHAIR	FRENCH RESEARCH INSTITUTE FOR EXPLOITATION OF THE SEA (IFREMER), FRANCE	JOEL.QUERELLOU@IFREMER.FR
BØRRESEN, TORGER	NATIONAL INSTITUTE OF AQUATIC RESOURCES (DTU AQUA), DENMARK	TB@AQUA.DTU.DK
BOYEN, CATHERINE	CNRS STATION BIOLOGIQUE, FRANCE	BOYEN@SB-ROSCOFF.FR
DOBSON, ALAN TBC	ENVIRONMENTAL RESEARCH INSTITUTE - UCC, IRELAND	A.DOBSON@UCC.IE
HÖFLE, MANFRED	HELMHOLTZ CENTER OF INFECTION RESEARCH, GERMANY	MHO@GBF.DE
IANORA, ADRIANNA	ECOPHYSIOLOGY LABORATORY STAZIONE ZOOLOGICA "A. DOHRN" NAPLES, ITALY	IANORA@SZN.IT
KIJJOA, ANAKE	CIMAR - UNIVERSITY OF PORTO, PORTUGAL	ANKIJJOA@ICBAS.UP.PT
OLAFSEN, JAN	UNIVERSITY OF TROMSØ, NORWAY	JAN.OLAFSEN@UIT.NO
JASPARS, MARCEL (via VCR)	ABERDEEN UNIVERSITY, UK	M.JASPARS@ABDN.AC.UK
WIJFFELS, RENE	WAGENINGEN UNIVERSITY, NETHERLANDS	RENE.WIJFFELS@WUR.NL
RIGOS, GEORGE	HELLENIC CENTRE FOR MARINE RESEARCH (HCMR) - GREECE	GRIGOS@ATH.HCMR.GR

MARINE BOARD SECRETARIAT

CALEWAERT, JAN-BART	MARINE BOARD	JBCALEWAERT@ESF.ORG
MCDONOUGH, NIALL	MARINE BOARD	NMCDONOUGH@ESF.ORG

Information presented at conference:



During the last decade the scientific and political landscape of marine biotechnology has been profoundly modified, and there is now a growing awareness of the ocean's biotechnological potential. The importance of a sustainable utilization of marine resources and protection of its environment and biodiversity for the future benefit of humankind is being recognized. At the same time the world is facing new challenges that will also have a profound impact on future science directions. Emerging scientific techniques and results make it possible to tap deeply into what is typically marine, and it is recognized that "the marine" may yield entirely new products and solutions. Despite significant achievements, marine biotechnology is yet far from fulfilling its potential to the numerous challenges European countries are facing. How the different sectors of "marine biotechnologies" can contribute to these challenges is a more appropriate question than ever.

RESEARCH CONFERENCES

ESF-COST High-Level Research Conference

Marine Biotechnology: Future Challenges

Hotel Villa del Mare, Acquafredda di Maratea • Italy
20-25 June 2010

Chair: **Jan Olafsen** - University of Tromsø, NO
Vice-Chair: **Adrianna Ianora** - Stazione Zoologica Anton Dohrn, IT
Organising Committee: **Jan-Bart Calewaert** - Marine Board-ESF, BE & **Amos Tandler** - Israel Oceanographic and Limnological Research, IL

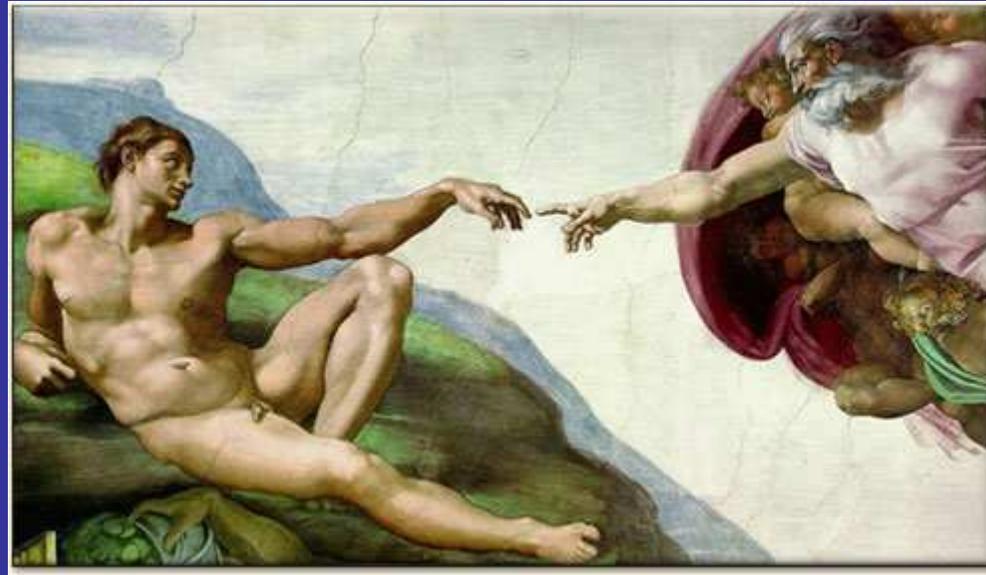


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Invited Speakers will include:

Oded Beja - Technion - Israel Institute of Technology, Haifa, IL
Chris Boulter - Ecole Normale Supérieure, Paris, FR

GAP



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<http://www.europabio.org>

HEALTHCARE BIOTECH

AGRICULTURAL BIOTECH

INDUSTRIAL BIOTECH

No BlueBiotech, no Marine Biotech

EuropaBio Blue Biotechnology Working Group

1st meeting : Brussels June 3rd

Inaugurating Committee:

- **Amlie Thor – Norwegian Bioindustry Association**
- **Borresen Torger – National Food Institute – DTU – DK**
- **Carrez Dirk –Europabio**
- **Cinar Adali – Turkey (Tubitak EU)**
- **Hellio Claire – Portsmouth (UK)**
- **Le Sourd Frédéric – CNRS – Roscoff – France**
- **Pardo Daniel –CNRS -LEST -Aix en Provence - France**
- **Perez-Martin Ricardo – CSIC-Spain**
- **Sohail Ali – Marine Biotech – Plymouth (UK)**

Future Actions

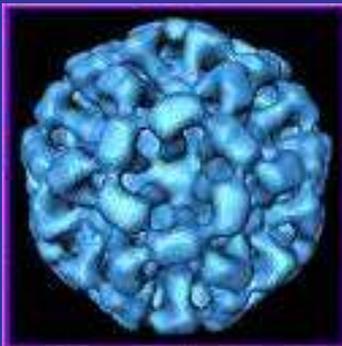
- ✓ Working Paper to Belgium Presidency (end June)
- ✓ Workshop Concarneau August 30/31
- ✓ Position paper
- ✓ Visibility
- ✓ Complementarity/Add Value/Cooperation

The « rendez-vous de Concarneau »

- It is proposed that workshops would continue to take place at the Marine Station of Concarneau (Brittany – France) which has been involved for many years in the development of various aspects of marine biotechnologies
- The place of Concarneau also offers optimal conditions for cordial and constructive discussions
- The format is suggested to consist of a two-days workshop with invited keynote speakers and open discussions
- The topic of each «rendez-vous» will be determined annually
- ***BUT: it does not exclude the possibility for the EBBWG to arrange other meetings elsewhere in Europe for matchmaking or other activities to be decided by the steering committee***

New opportunities in Blue Biotech

- Biochemical diversity/ Biodiscovery
- Biotechnological exploitation of biomass
- Fisheries management
- Functional genomics
- Use of -omics technologies
- Aquaculture technology – Nutrition



Challenges

- Less than 1% of marine microorganisms can still be cultured
- Lack of knowledge about the micro- and macrobiota composition in most ocean areas
- Development of poly-cultural systems for growing organisms in the aquatic environment in order to master the environmental conditions
- Future sustainable food supplies will be requested from the aquatic environment

Why is Blue Biotech so important ?

- **72 % of surface of earth is water. More than 90 % of the biosphere is water**
- **Marine biodiversity is made of a large number of specific features: numerous endemic phylum, importance of unicellular organisms, large number of unknown life organisation forms, biochemical adaptations to extreme temperatures, pressure, halogens,**

