



European Consortium of Microbial Resources Centres – EMbaRC

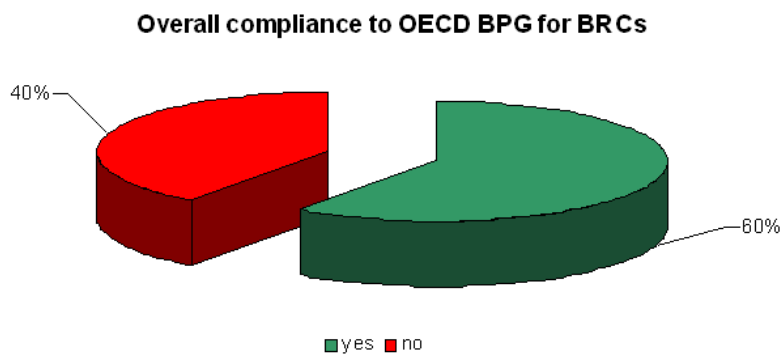
NEWSLETTER N° 2 – AUGUST 2010

EMbaRC, a 3 year project funded by the EU, aims to improve the coordination and validation of microbial resources delivery to European and International researchers in both the public and private sectors. It brings together microbial resource centres (mBRC) from seven European countries, and combines networking, training and research activities. Outreach and training activities especially will ensure that all European collections can share and further develop technologies in the preservation and characterisation of microorganisms. Furthermore it aims at helping collections and microbiologists to comply with regulatory requirements; for example Biosecurity guidance will be developed.

Deliverables and milestones underway

To ensure harmonisation of the quality of mBRCs to the international level, **EMbaRC** partners took as its foundation the OECD best practice guidelines and emerging national standards for Biological Resource Centres (BRCs).

1) Working with the Global Biological Resource Centre Demonstration Project the **EMbaRC** partner collections have started to assess the implementation of the OECD best practice guidelines for Biological Resource Centres.



2) The Consortium will harmonize the principal methods used by the different partners (D.NA1.1.1) and drafted a Quality Manual which is under discussion.

3) Of tremendous importance is the preparation of a Code of Conduct for Biosecurity for European Microbial Biological Resource Collections.

To complement the networking activities **Inter-laboratory testing** (JRA1.3) has been undertaken: Concerning the bacteria, the comparison of sequences of 16S from different collections (IP, CECT, INRA and DSMZ) is being explored. Evidence proves that the type strains of the genus *Lactobacillus* are identical in the corresponding collections. Further comparative studies will be carried out for validation of methods and strain properties between the partner fungal and bacteria collections.

Grants for access to leading EU Microbial Biological Resource Centres (BRCs)

The **EMbaRC** Training and Outreach Programme (TOP) is an opportunity for scientists to stay at one of the **EMbaRC** centres and benefit from expert advice and advanced equipment. **EMbaRC** will cover the bench fees, travel and subsistence costs. For more information and application form, visit the TOP webpage at: www.embarc.eu.

This unique opportunity for collaborative study visits in collection management, identification of bacteria and fungi by state-of-the-art techniques or phenotypic screening of a collection of strains is organised with the support of the Seventh Framework Programme, Research Infrastructures Action.

Training and study opportunities

- High Throughput Screening of food bacteria and filamentous fungi
- Strain identification on pathogenic bacteria
- Handling risk group 3 microorganisms
- Taxonomy of pathogenic bacteria -food safety
- Management of microbial strains in *ex situ* collections
- State of the art techniques in bacteriology
- Identification
- Authentication, characterisation, preservation, databasing storage of microorganisms
- Analytical and microbiological services
- Theoretical, practical and regulatory aspects of a plasmid collection management
- In vitro Culture of Arbuscular Mycorrhizal Fungi



The review panel have already reviewed several applications and approved study visits to partner collections.

EMbaRC presents a session at the occasion of ICC12, Florianópolis, Brazil, 27 September 2010:

Session 3D: European Consortium of Microbial Resources Centres (EMbaRC) Seminar

- Introduction to EMbaRC - Sylvie Lortal, INRA Rennes (Coordinator)
- Overview of the networking development and output - David Smith
- Transnational access and approaches for training in Microbial Research Centres (**mBRCs**) - Philippe Desmeth
- Strategies for improving the use of mBRCs - Erko Stackebrandt
- MALDI-TOF ICMS as a powerful technique for strain authentications in Culture Collections - Cledir Santos and Nelson Lima, Micoteca da Universidade do Minho, Portugal

Roundtable

The feasibility of networking, access and exchange of information and material
Strategies to encourage deposit in mBRCs and their use

Please join in! More information about the conference can be found at <http://www.iccc12.info>.

Microbial Resources Research Infrastructure (MIRRI) - a proposal for the European Strategy Forum for Research Infrastructures (ESFRI) road map

The ESFRI strategy aims at overcoming fragmentation of access to resources and services often due to individual policies and provides Europe with the most up-to-date Research Infrastructures (RI). There are 44 Research Infrastructures on the 2008 ESFRI road map. Each RI is designed to deliver scientific and technological cutting edge and managerial excellence in research, education and technology and provide clear pan-European added value. RIs are at the centre of the knowledge triangle of research, education and innovation, producing knowledge through research, diffusing it through education, and applying it through innovation.

In that context a call in 2010 for a network to underpin agriculture and biotechnology development resulted in the GBRCN Demonstration Project, - **EMbaRC - European Consortium for Microbial Resource Centres** and ECCO - European Culture Collection's Organisation submitting a proposal to establish a microbial resource research infrastructure: **MIRRI**. **MIRRI** brings together European microbial resource

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collections (mBRCs) with stakeholders (their users, policy makers, potential funders and the plethora of microbial research efforts) aiming at improving access to enhanced quality microbial resources in an appropriate legal framework. It will build the European platform within the future Global Biological Resource Centre Network (GBRCN) for microorganisms. The MIRRI partnership will be open to all European collections that are willing to implement best practices and share resources and expertise and will have global outreach explicitly inviting non-European partners.

The *MIRRI* proposal, prepared by the GBRCN Secretariat, **EMbaRC** and ECCO representatives, submitted by the French delegate to ESFRI and supported by several other countries, integrates services and resources, bridging the gap between the organism and provision of innovative solutions and products for green, grey and white biotechnology. *MIRRI* provides coherence in the application of quality standards, homogeneity in data storage and management and sharing the workload to help to release the hidden potential of microorganisms. If accepted *MIRRI* will move into a preparatory phase and when designed and funding secured into the construction and operational phases. The preparatory phase focuses on governance and structure including technical, legal governance and financial issues. It establishes the links between the microbiological resource centre (mBRC) community, its users, policy makers and potential funders. It builds on:

- The foundation set by the OECD BRC Task Force providing best practice¹
- The GBRCN demonstration, **EMbaRC** and previous European projects
- Voluntary scientifically based collection network activities, such as WFCC and ECCO

The network will focus efforts through the cluster model to deliver an improved resource to meet user needs. Close cooperation with other RI's such as the Biological and Biomedical Research Infrastructure (BBMRI) will greatly serve the broad scientific user communities. User needs cannot normally be serviced by one collection alone and a co-ordinated response to their needs is required.

The decision date will be the 24th September 2010.

¹ [OECD Best Practice Guidelines for Biological Resource Centres](#)
See www.gbrcn.org; www.embarc.eu; www.eccosite.org; www.wfcc.info

EMbaRC Partners

[Institut National de la Recherche Agronomique](#), INRA, France (Coordinator)
[Institut Pasteur](#), IP, France (Vice-Coordinator)
[German Collection of Microorganisms and Cell Cultures](#), DSMZ, Germany
[CABI Europe](#), UK
[Spanish Type Culture Collection](#), UVEG-CECT, Spain
[Belgian Co-ordinated Collections of Microorganisms](#), BCCM, Belgium
[Micoteca da Universidade do Minho](#), MUM-UMinho, Portugal
[Centraalbureau voor Schimmelcultures](#), KNAW-CBS, The Netherlands

***Forthcoming event: Secure the future of microbial resources at a laboratory scale
EMbaRC workshop – 14-15 June 2011 – Turin, Italy***

Save the date! More information on embarc.eu soon.

***European Microbial collections: a high added value for science!
EMbaRC workshop – 8-9 March 2010 – Cantacuzino Institute, Bucharest, Romania***

All presentations are available on embarc.eu