

EMbaRC: 1

European Consortium of Microbial Resources Centres (EMbaRC): Secure the future of microbial resources at laboratory scale

Sylvie Lortal¹, Chantal Bizet¹, Christiane Bouchier¹, Erko Stackebrandt¹, David Smith¹, David R. Arahal¹, Philippe Desmeth¹, Nelson Lima^{1,2}, Gerard Verkleij¹, Joost Stalpers¹, Paul De Vos¹, Stéphane Declerck¹

¹EMbaRC Consortium; ²IBB/Centre of Biological Engineering, Braga, Portugal

EMbaRC is an EU project which aims to improve, coordinate and validate microbial resource centre (MRC) delivery to the European and International researchers. To ensure harmonisation of the quality of MRCs, EMbaRC plans to take the current OECD best practice guidelines and emerging national standards for Biological Resource Centres (BRCs) to the international level. Outreach and training activities will ensure that not only the consortium but that all European collections operate to the standards required to deliver products and services of consistent quality thus meeting customer needs. A one-stop access to the collections of EMbaRC and the wider European BRC community via a searchable web portal building on the outcomes of the CABRI and EBRCN is being developed. Access and high-quality support and training to research teams is provided via calls for access and selected participants can spend time at partner institutions gaining access to resources, technologies and expertise. This project is a mixture of networking, training and research. Research output will deliver new methods for strain and DNA preservation, novel techniques for identifying species. The networking elements will give better access to authentic microorganisms and validated associated data and provide a set of business models for the self-sustainability of BRCs. This project creates the European platform of the OECD envisaged Global Biological Resource Centre Network. Amongst its activities the consortium is developing strategies to protect investment in research by ensuring preservation of key biological material holdings on research laboratories. Specific activities of the project have included improving protocols for the authentication and preservation of cultures and the provision of an EMbaRC quality manual to enable collection operators to identify and move towards the implementation of best practices. Working with scientists and journal editors the improvement of access to strains cited in publications is being addressed. Within the area of compliance with regulatory requirements, emphasis is laid on the development of a Biosecurity Code of Conduct. These and many other areas impacting on the handling, storage and distribution of microbial strains have been discussed, studied and mechanisms elucidated.

Acknowledgments: Funding was received from the EU 7th Framework Program (FP7,2007–2013), Research Infrastructures Action, Grant no. FP7-228310 (EMbaRC project).