

Biobanks, biomolecular resources and healthcare innovation

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Human biological samples, such as blood, tissues or DNA including associated medical data are key resources in unraveling genetic and environmental factors causing diseases and influencing their outcome. Furthermore these resources are required for biomarker discovery and development, identification of new targets for therapy, and may help to reduce attrition in drug discovery and development.

The OECD Global Biological Resource Centres Network (GBRCN) should provide an international framework to sustainably provide access to these key resources in a quality controlled and secure manner. A pilot phase of the human-domain GBRCN should demonstrate the feasibility of the implementation of the OECD best practice guidelines.

In Europe, the pan-European Biobanking and Biomolecular Resources Research Infrastructure (BBMRI) implements the OECD best practice guidelines for biological resource centres and will become the European part of a human-domain GBRCN. BBMRI will build on existing human biological sample collections, resources, technologies as well as expertise specifically complemented with innovative components. BBMRI in its preparatory phase involves currently more than 260 institutions and organizations from 30 countries.

The establishment of a pilot human-domain GBRCN that involves BBMRI as well as similar initiatives in other OECD Member States or enhanced engagement countries would be an important progress towards global harmonization of biobanking facilitating international collaborations in medical research.