

BIOBANK

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OVERVIEW

The CNIO Biobank is a cross-service platform for CNIO researchers, as well as the general scientific community, and is geared towards the promotion of biomedical research in cancer and related diseases. The CNIO Biobank facilitates access to human samples for researchers, ensuring that both the acquisition and use of human samples complies with all the legal and ethical principles that protect donors' rights.

The CNIO Biobank is a 'biobank for biomedical research purposes', as defined by the Spanish Law 14/2007 on Biomedical Research and the Royal Decree RD 1716/2011. It is therefore defined as a public, non-profit organisation that hosts several collections of human biological samples for biomedical research.

The biobank is organised as a technical unit with strict criteria for quality, order and purpose, regardless of whether or not it hosts other collections of biological samples for different purposes. Samples and their associated information are managed in compliance with Spanish legislation and international recommendations; all of this is consistent with quality criteria for sample collection and its subsequent management.

The Biobank has been authorised by the Health Authorities of the *Comunidad Autónoma de Madrid* – in accordance with the regulation established by RD1716/2011 – and is registered in the National Registry of Biobanks with reference B.000848.

RESEARCH HIGHLIGHTS

Biobanking

- Collection, management, manipulation and custody of human biological samples and associated documentation, in accordance with the legal framework for biobanking.
- Transfer of samples and clinical biomedical information to research projects, under the approval of the corresponding scientific and ethical committees.

Management of other collections

- Custody service of collections of biological samples and/or information related to biomedical research as promoted by the CNIO or other external research groups.
- Coordination of sample collections in multicentre studies.
- Processing of products derived from human samples for research (tissue arrays, DNA, RNA, etc.).
- Researchers who want to deposit their collections at the CNIO-Biobank facilities, or who wish to request samples, must sign an MTA (Material Transfer Agreement) that specifies the terms and conditions under which the Biobank will custody the samples and data.

Ethico-legal advice for CNIO researchers regarding the use of human samples in biomedical research

- Technical, scientific and ethical advice regarding the collection, storage and management of human samples used for biomedical research, as well as in regards to the creation and management of new collections that are beyond the Biobank's scope.

Other services

- Collaboration with CNIO researchers in human pathology.
- Collaboration in diagnostic activities as specialists in human pathology.

During 2016, the CNIO-Biobank has supported 9 tissue requests from scientific research projects with 180 single cases and 303 tissue microarrays transferred. Additionally, as the Spanish National Biobank Network Coordination Office, we have managed 37 scientific research projects of high complexity.

PUBLICATIONS

- ▶ Manso L *et al.* (incl. Mourón S, Tress M, Gómez-López G, Morente M, Ciruelos E, Rubio-Camarillo M, Pisano DG, Quintela-Fandino M) (2016). Analysis of Paired Primary-Metastatic Hormone-Receptor Positive Breast Tumors (HRPBC) Uncovers Potential Novel Drivers of Hormonal Resistance. *PLoS One* 11, e0155840.
- ▶ Doucet M *et al.* (incl. Morente M) (2016). Quality Matters: 2016 Annual Conference of the National Infrastructures for Biobanking. *Biopreserv Biobank*. PMID: 27992240.
- ▶ Suárez AE *et al.* (incl. Artiga MJ) (2016). Angioimmunoblastic T-cell lymphoma with a clonal plasma cell proliferation that underwent immunoglobulin iso-

Biobanking includes...

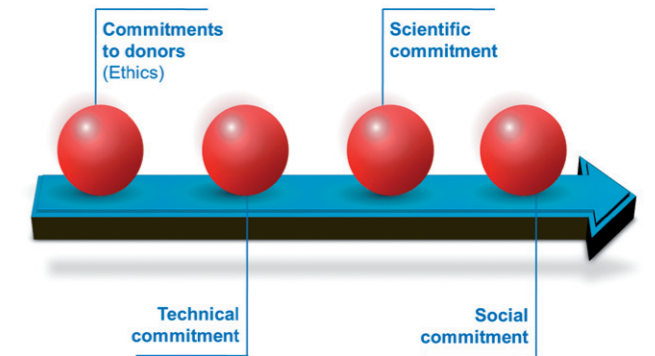


Figure Biobanking is a transversal activity based on four basic commitments: respect for donors' rights, technical excellence, adherence to the scientific requirements, and strict compliance with Spanish legislation.

The mean impact factor of the 10 publications published in 2016, for which our Unit provided support was 11.384. We also provided sample and/or documental support for the familial cancer activities of the CNIO Human Cancer Genetics Programme.

The CNIO Biobank participates in and coordinates the Spanish National Biobank Network. This nationwide platform of services integrates 52 institutions (www.redbiobancos.es) and is an initiative of the *Instituto de Salud Carlos III (ISCIII)*.

Finally, the Unit has spearheaded many activities in the national and international biobanking scene through its participation and leadership in numerous forums, working groups and national and international scientific societies. These include the European, Middle Eastern and African Society for Biopreservation and Biobanking (ESBB), the International Society for Biological and Environmental Repositories (ISBER), international think tanks such as the Marble Arch International Working Group on Clinical Biobanking, BC-Net IARC-WHO/NCI initiative, EurocanPlatform (7th FP), and others. ■

AWARDS AND RECOGNITION

- ▶ Member, Evaluation panel 'Enabling German Biobank Sites to Connect to BBMRI-ERIC', Federal Ministry of Education and Research, Germany.
- ▶ García-Donas J *et al.* (incl. Inglada-Pérez L, Graña O, Apellániz-Ruiz M, Morente M, Pisano DG, Robledo M, Rodríguez-Antóna C) (2016). Deep sequencing reveals microRNAs predictive of antiangiogenic drug response. *JCI Insight* 1, e86051.