

BIOBANK

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OVERVIEW

The principal objective of CNIO Biobank is to facilitate access to quality human samples and associated data for research in cancer and related diseases, ensuring that both the acquisition and their use, comply with all the legal and ethical principles that protect donors' rights.

CNIO Biobank is a cross-service platform for CNIO researchers and the general scientific community that provides a broad service offer covering all stages in research project management requiring the use of human samples. CNIO Biobank offers: sample processing; collection management; quality, ethical and legal consultancy; acquisition and design of valuable research collections; and negotiating with different stakeholders to find suitable samples and/or help obtain ethical approval for research projects.

“CNIO Biobank is heading towards modern, dynamic biobanking, facilitating the use of quality human samples for biomedical research, while protecting donors’ rights and contributing to CNIO’s research excellence.”

CNIO Biobank is authorised by the *Consejería de Sanidad de la Comunidad Autónoma de Madrid (CAM)* and registered in the *Registro Nacional de Biobancos del Instituto de Salud Carlos III* (ref. nº: B.000848).

RESEARCH HIGHLIGHTS

In 2020, CNIO Biobank incorporated 6,500 cases to enlarge several existing collections (3,353 lymphoid cases, 507 gynaecologic cases, 955 digestive cases, 1220 cases in the basic collection, 545 non neoplastic cases) and acquired 2 new collections: COVID-19 collection (272 cases) and PDX collection (219 cases). Tissue samples were shared from 730 cases to support 12 research projects.

The CNIO Biobank's Virtual Catalogue includes 7,563 images; the tissue micro-array (TMA) catalogue holds 288 images, 156 corresponding to histological H&E stains and the rest IHQ images.

The knowledge generation impact related to activity in 2020 resulted in 7 (Q1) publications acknowledging CNIO's Biobank contribution, with a mean impact factor (IF) of 9.044.

CNIO Biobank also managed 3 project-derived collections, offering its services of custody and storage that provide traceability and GDPR compliance, and collaborated with the Familial Cancer Unit in requesting 19 new cases for genetic studies.

CNIO Biobank supported 12 CNIO project submissions for ethical evaluation by the *Instituto de Salud Carlos III (ISCIII)* Research Ethics Committee. This year, we also opened a new information inquiry option (<https://apps.cnio.es/app/Biobanco/Asesoria/Consulta>) accessible to researchers or even the wider community, located on the Biobank-CNIO website, to address any questions regarding biobanking.

CNIO Biobank is participating in the *Plataforma de Apoyo a la Investigación en biobancos* project, corresponding to the *Acción Estratégica en Salud 2017-2020*, promoted by the *ISCIII*. CNIO Biobank is also leading the Optimark (PI16/00946) research project focused on identifying quality markers for tissue samples sensitive to pre-analytical variables.

CNIO Biobank is highly involved in dissemination activities, participating on a regular basis in radio programmes (*RNE*), with a remarkable presence in local and national press, and participating in events such as *La noche de los investigadores*, *Día de la mujer y la niña en la ciencia*, *Talent Woman* or *Mujeres que lideran el futuro*, to name a few.

CNIO Biobank in collaboration with Lund University (Sweden), University of Copenhagen (Denmark) and the Danish National Biobank organised a PhD course, “The Future of Biobanking”, and a symposium entitled “Scaling Omics Approaches to Population Size” held in Copenhagen and Lund in November 2020.

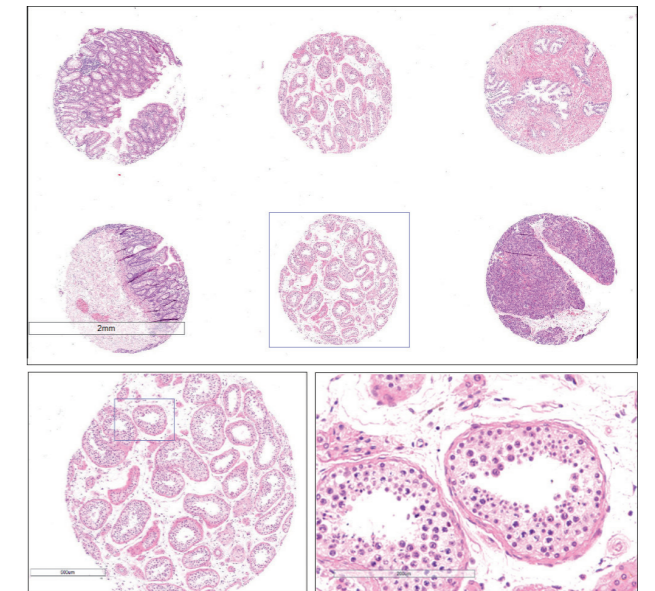


FIGURE H&E staining images of a TMA built at CNIO Biobank containing non-tumour tissue from different anatomic locations. Different magnifications are shown: 2x (upper panel), 5x (lower left), 20x (lower right). Blue squares indicate the area amplified in the next panel.