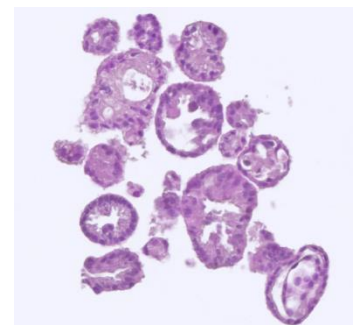
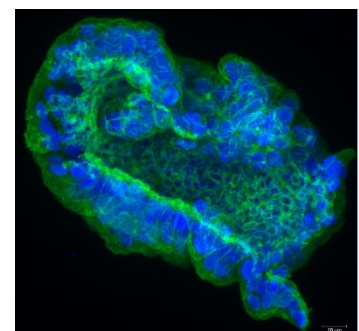


Biobank of the Aragon Health System (BSSA)



The **Biobank of the Aragon Health System (BSSA)** stands as an essential catalyst for biomedical research and the acceleration of translational research. Its fundamental mission lies in facilitating high-quality human **biological samples and associated clinical data** to the scientific community, both public and private, all under rigorous ethical and quality standards.

The BSSA offers a range of value-added services: from the provision of samples and data for research to prospective collection tailored to various pathologies. Its capacity for the generation and characterization of **3D biomodels**, including organoids, as well as the execution of toxicity and functionality assays, is particularly noteworthy. Complementing its offerings are **exosome purification** and a personalized sample processing and storage service.



In this regard, the BSSA strategically aligns with the IACS's **Personalized Medicine** initiative.

The integration of clinical data through the innovative **BIGAN data lake**, the availability of **advanced biomodels**, and access to leading platforms such as **ISCIII Biobanks and Biomodels and BBMRI**, solidify the BSSA as a reference biobank for top-tier biomedical research projects.



Its **extensive catalog of samples** covers **prevalent pathologies** such as cancer, neurological diseases, autoimmune diseases, infectious diseases, dyslipidemias, cardiovascular diseases, and obesity. Nevertheless, the BSSA possesses the **flexibility** and capacity to prospectively address the collection of samples for other types of pathologies, adapting to the specific needs of each research endeavor.

The biobank boasts a state-of-the-art **technological infrastructure**, including a RegeMat Reget4Life bioprinter, biosafety cabinets, and robust storage capacity with 20 ultra-low freezers and liquid nitrogen tanks. A **highly specialized human team**, comprising three PhDs in biomedicine (Technical Coordinator and node managers), a nurse, and expert laboratory technicians in medical diagnostics and pathological anatomy, ensures the operational excellence of the BSSA.

The BSSA demonstrates its commitment to scientific advancement through its participation and leadership in various **research projects**, and the key contribution of its staff to numerous scientific publications.

> **HERVCOV** to understand the pathogenic role of HERV envelope protein and develop novel prognostic markers and therapeutic targets for personalized treatment of COVID-19-associated syndromes. Horizon Europe

> **BY-COVID** to provide a framework for making data from COVID-19 and other infectious diseases open and accessible to everyone. Horizon Europe

Keywords

Biological samples, clinical data, 3D biomodels, organoids, liquid biopsy, pharmacogenomics, drug testing, pharmacodynamics

Who are we?

The **Aragon Health Sciences Institute** has research and innovation groups as well as competitive Core Research Facilities to provide access to last generation equipment together with the advice and support of highly trained and specialized professionals: Animal facility, Medical Imaging and Phenotyping, Experimental surgery, Biocomputing, Biobank, Cell culture, Diagnostic Laboratory, Proteomics, Microscopy and Imaging, Sequencing and Functional Genomics as well as Cell separation and cytometry. Since 2018, IACS is responsible for the development and maintenance of BiGAN (computational infrastructure and real world data lake gathering data from

Aragon Regional Public Health System) as well as its linkage to national and European networks.

IACS is the Health Technology Assessments (HTA) agency for the Regional Government and is part of the Spanish and International Network of HTA Agencies. IACS holds the secretariat of the national clearinghouse of clinical practice guidelines (GuiaSalud), coordinating the development, dissemination and adoption of evidence-based products for the Spanish National Health System.

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