

BIOBANCO - IMM

CENTRO
ACADÉMICO
DE MEDICINA
DE LISBOA

2020

HIGHLIGHTS



CENTRO HOSPITALAR
LISBOA NORTE. EPE



MM Instituto de Medicina Molecular | João Lobo Antunes

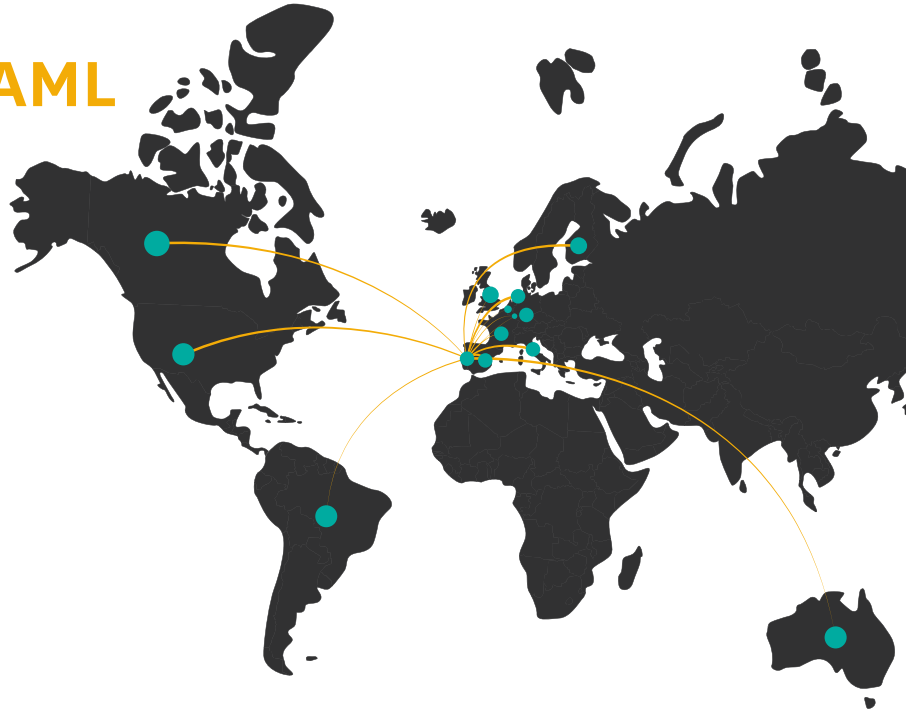
RATIONALE

The Biobanco-iMM Centro Académico de Medicina de Lisboa (CAML) was created in 2012 at the Instituto de Medicina Molecular João Lobo Antunes (iMM), and since then it has received, processed and stored a wide variety of clinically annotated biological samples, donated voluntarily, and aiming at foster biomedical research. Currently with thousands of human biospecimens, including blood, serum, saliva, urine, cerebrospinal fluid, and tumor tissue, representative of 58 different human diseases, the Biobanco-iMM CAML is a unique platform to support national and international scientific research, with potential high impact on public health and in advancing patient care.

BIOBANCO-IMM CAML WORLDWIDE

During the past year, Biobanco-iMM CAML consolidated itself as a national and international partner.

Samples from Biobanco-iMM CAML were shared for different research projects around the world. Due to the COVID-19 collection, Biobanco-iMM was also include in the Biobanking and BioMolecular Resources Research Infrastructure (BBMRI) directory.



FUTURE PLANS

The goal of Biobanco-iMM CAML is to continue promoting best practices in biobanking and, therefore, to stand as a leading reference in the field, both at a National and International level. We plan to establish a sustainable business plan to ensure the expansion of our services and to foster three main pillars of biomedical research: innovation, training and outreach.

INNOVATION

Implementation of new strategic services to the scientific community, including a bank of primary human fibroblasts cell lines and immortalization of lymphocytes;

Expand the collection of patient-derived xenografts;

Exosomes isolation.

TRAINING

1st Edition course of “Biobanks for clinical Research”.

OUTREACH

Increase the scientific output (published papers in collaboration with Biobanco-iMM CAML);

Continue to Bring Biobanco-iMM CAML closer to the public with our “open-days”, the Newsletter and Activity Reports;

Launch the campaign “Sponsor one collection, support a cause/disease”.

ONGOING PROJECTS

SAMPLE PROCESSING AND STORAGE

Processing of Samples:

- 58 active collections;
- 3 national clinical trials;
- 2 international clinical trials;

PDXs:

- Sample storage for 1 project with patient derived xenografts.

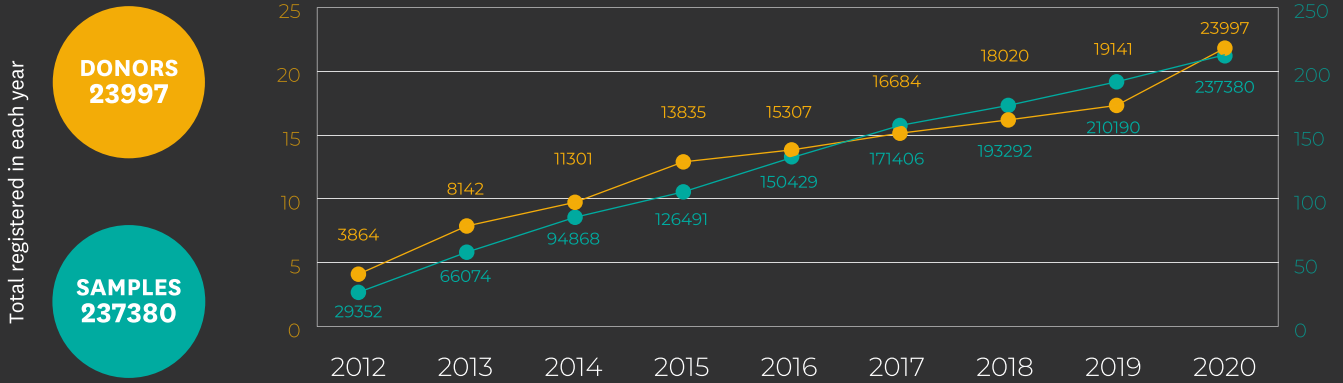
- Quality control.

SERVICES PROVIDED

- 44 projects (DNA extraction);
- 4 projects (PBMC isolation);
- 2 projects (primary cell culture of skin fibroblasts);
- 4 projects (tissue processing).

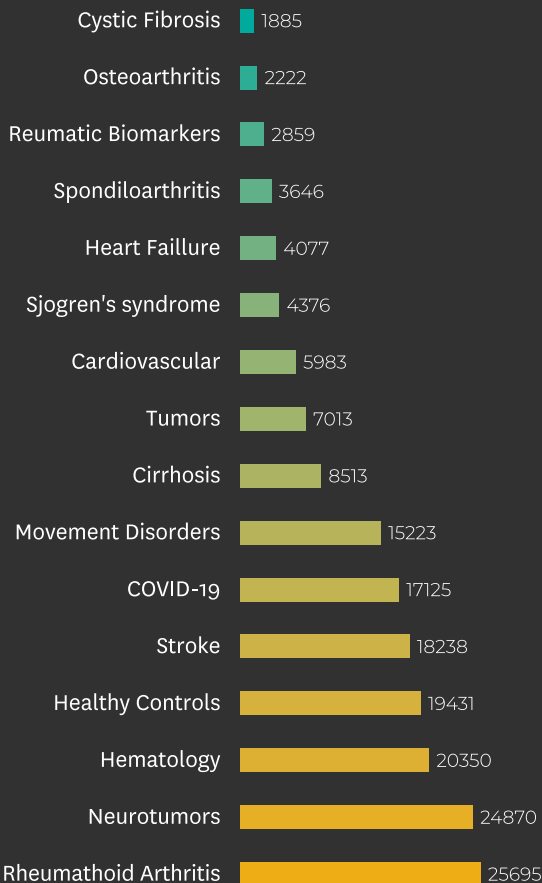
RESULTS

DONORS AND SAMPLES REGISTRY



TOP COLLECTIONS

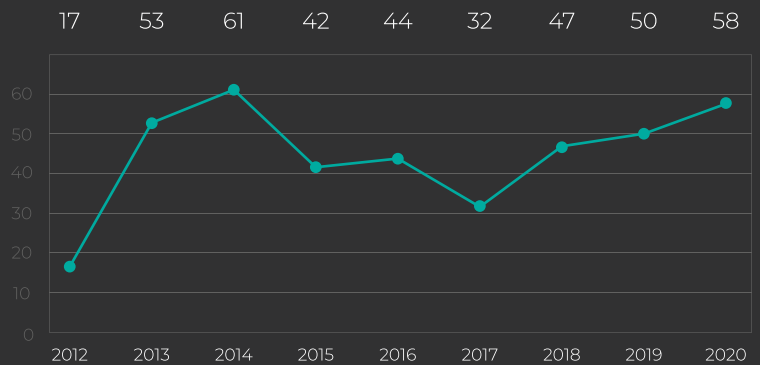
Samples are organized in 58 collections. Of notice is the COVID-19 collection that was created in the beginning of the pandemic. Listed below are the most representative collections:



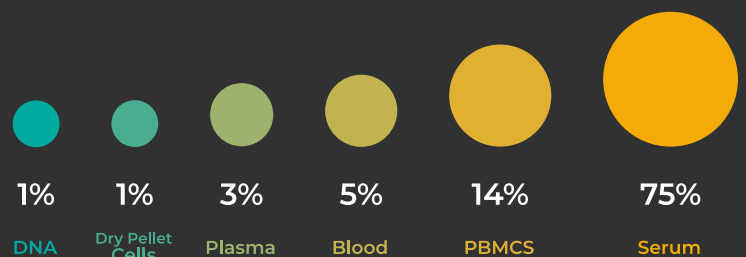
SAMPLES REQUEST

In 2020, we had 58 new requests. Since the opening of Biobanco-IMM CAML we had 413 requests from national and international researchers, which represents 20532 samples shipped from the biobank.

REQUESTED SAMPLES PER YEAR



REQUESTED SAMPLES BY SAMPLE TYPE



BIOBANCO-IMM CAML AS A PARTNER

“Primary fibroblasts from skin biopsies are a source of primary cells from patients. Recently, primary fibroblasts became even more attractive for research and clinical purposes because they are a privileged donor cell-type used in the generation of induced pluripotent stem cells (iPSCs). In MCFonseca's Lab, we are reprogramming primary fibroblasts produced by Biobanco-iMM into iPSCs from patients carrying mutations that increase the risk of developing breast cancer. By differentiating the iPSCs into mammary epithelial progenitor cells, we are investigating the role of such mutations in early steps of malignant transformation.”

Simão Rocha - MCFonseca's Lab

“Clinical research requires access to biological samples from patients. At the beginning of the COVID-19 pandemic, a group of clinicians and researchers felt it was urgent to implement a collection of samples from patients with COVID-19 to support research. This led to an effort, involving health professionals and researchers to collect 6700 samples, together with appropriate clinical information. These biobanked samples were already used for several research projects from different research institutions, including for the development of monoclonal antibodies targeting SARS-CoV-2 by a Portuguese company (FairJourney Biologics). The iMM COVID-19 collection remains available to the research community to support the effort to contain this pandemic.”

Luís Graça, Principal Investigator at iMM

PARTNERSHIPS

Biobanco-iMM CAML collaborates with scientific societies, biotechnology and pharmaceutical companies and banks. The consortium has supported equipment, software, consumables and human resources allowing the full operational potential of Biobanco-iMM CAML.



CONTACT US

 **Edifício Egas Moniz**
Av. Prof Egas Moniz | 1649-028 Lisboa

 **biobanco-imm@medicina.ulisboa.pt**

 **+351 217 999 437**

 **+351 965 152 588**

 **www.biobanco.pt**

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