



Report

2014

BIOBANCO

— IMM CENTRO
ACADÉMICO
DE MEDICINA
DE LISBOA



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Introduction

In the early years of Biobanco-IMM CAML several priorities were established, such as communication (through the society and scientific partners), expanding collections, promoting collaborations and standardizing procedures. Dissemination of the biobanking concept was crucial in the initial steps of creating a biobank, especially in the context of a society and scientific community unaware of such practices. Promoting a diverse sample collection representing the Portuguese population is another critical goal of biobanking, which was achieved by collaborating with private laboratories, the Portuguese Institute of Blood and Transplantation, and several private companies as well as universities. These collaborations allowed us to establish a control collection that represents almost 70% of the samples requested in the last year. Moreover, broadening the collection collaborations allowed the establishment of such varied collaborations in areas such as stroke, rheumatoid arthritis and spontaneous pneumothorax. Finally, standardizing procedures of sample management and implementing a data management system were developed, as well as high end technical procedures that are under way including the consolidation and enlargement of the primary cell culture and lymphocytes immortalization.

In the upcoming years, Biobanco-IMM CAML aims to achieve sustainable growth, focused on improving quality, not only in samples but also in data management. Currently we are working on several aspects of serum and DNA quality control parameters. Still, we aim to expand our sample diversity, namely by cooperating with Instituto de Medicina Legal for cadaveric samples, by increasing the number of donors in the controls collection with samples that may improve the quality of the data present in our questionnaire, such as in Primary Care Health Units. Moreover, by increasingly involving the researchers in the data collection it will be possible to improve the quality of the health-related information. Other strategic goals are to promote national biobanking networking with standardized procedures and established synergies as well as international integration of biobanking networks.

WITH THIS IN MIND, BIOBANCO-IMM AIMS AT ESTABLISHING ITSELF AS A REFERENCE IN PORTUGUESE BIOBANK INITIATIVES. FOR THIS PURPOSE, SEVERAL ACTIVITIES HAVE BEEN DEVELOPED OVER THE LAST YEAR AND OTHERS WILL TAKE PLACE IN SHORT TERM, AS DESCRIBED BELOW.





Team

Biobanco-IMM, CAML relies on a team of eight staff members, who contribute to the development of different areas. According to specific needs, however, we seek support from other professionals, including clinicians, nurses and blood collection technicians.

In addition, Biobanco-IMM, CAML is supported by both a Scientific and a Technical Committee, which account for the evaluation and authorization of the use of samples and the legal and technical assistance for biobanking activities.



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Technical Supervisor

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SCIENTIFIC COMMISSION

With the mission of evaluating research proposals and authorizing sample usage.

Alexandre Mendonça MD PhD | Cristina Ferreira MD | Dulce Brito MD PhD | Joana Caetano-Lopes PhD | Joaquim Ferreira MD PhD | Luís Costa MD PhD | Sandra Casimiro PhD | Sofia Oliveira PhD

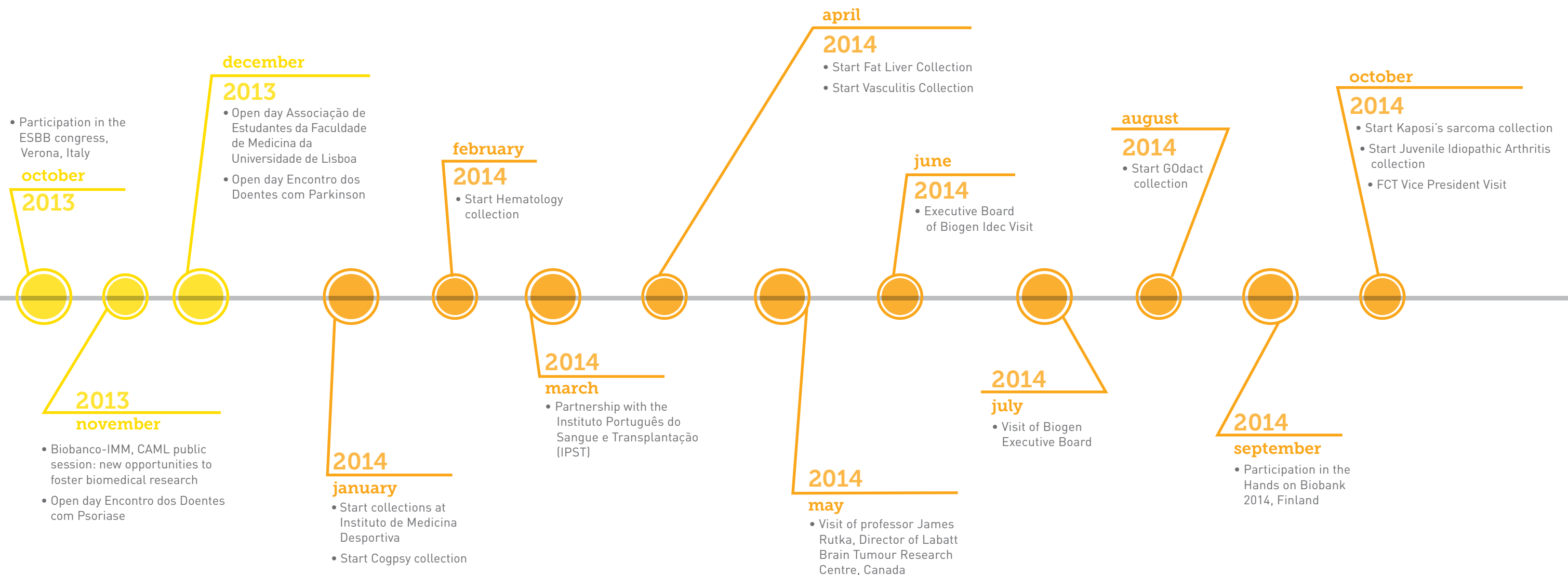
TECHNICAL COMMISSION

Ensures the legal, ethical and technical framework for adequate functioning.

Alexandra Maralhas BSc | Andreia Machado BSc | Teresa Fernandes BSc | Filipa Nunes PhD | Margarida Gago BSc | José Braga PhD.

Hallmarks of Biobanco-IMM, CAML history

During this last year, three goals were achieved: partnership with the Instituto Português do Sangue e Transplantação (IPST); enlarge the number of collections and increase partnerships with research institutes.



Collections, donors and samples

The Biobanco-IMM, CAML, principal commitment is to broaden the scope of its collections every year. Our major collaboration is with Hospital de Santa Maria, which belongs to the Lisbon Academic Medical Centre. However, during this year we increased the collaborations with other hospitals, not only in the Lisbon area, but also across the country.

COLLECTION

Biobanco-IMM, CAML is organized in collections, under the responsibility of a principal investigator. At the moment, we have 32 active collections distributed as follows.

	Name	Description	Parties Involved	Principal Investigator
2014	Cogpsy	Inflammation and cognition in recent onset psychosis	Psychiatry Department, Hospital Santa Maria	Bernardo Moura
	Fat Liver	Collection of samples from patients with Fat Liver	Gastroenterology Department, Hospital Santa Maria	Helena Cortez Pinto
	GO-DACT	A multicentre, randomized, double-blind, parallel-group study to compare the efficacy of golimumab in combination with methotrexate (MTX) versus MTX monotherapy, in improving dactylitis and enthesitis, in MTX naïve psoriatic arthritis patients	Rheumatology Research Unit (IMM), Rheumatology and Bone Metabolic Diseases Department, Hospital Santa Maria	Elsa Sousa
	Hepatocellular Carcinoma	Collection of samples from patients with Hepatocellular Carcinoma	Gastroenterology Department, Hospital Santa Maria	Rui Tato Marinho
	Juvenile Idiopathic Arthritis (AIJ)	Collection of samples from patients with Juvenile Idiopathic Arthritis	Rheumatology Research Unit (IMM), Rheumatology and Bone Metabolic Diseases Department, Hospital Santa Maria	Ana Filipa Mourão
	Kaposi's sarcoma	Collection of samples from patients with Kaposi's Sarcoma	Dermatology Department, Hospital Santa Maria	João Costa
	Rheumatic Diseases in Pregnancy	Collection of samples from pregnant patients with rheumatic Diseases	Rheumatology Research Unit (IMM), Rheumatology and Bone Metabolic Diseases Department, Hospital Santa Maria	Manuela Costa
	Vasculitis	Collection of samples from patients with Vasculitis	Neurology Department, Hospital Santa Maria	Ruth Geraudes
	ViscOA	A randomized placebo controlled trial to assess the structural effect and long-term symptomatic relief of repeated intra-articular injections of hyaluronic acid in primary knee osteoarthritis	Rheumatology Department, Hospital Egas Moniz, Rheumatology and Bone Metabolic Diseases Department, Hospital Santa Maria	Alexandre Sipriano

2013

Name	Description	Parties Involved	Principal Investigator
Auto-inflammatory Diseases	Collection of samples from young patients with auto-inflammatory diseases	Pediatrics and Rheumatology and Bone Metabolic diseases Departments, Hospital Santa Maria	Filipa Ramos
Bipolar Disorders	Collection of samples from patients with Bipolar Disorders	Psychiatry Department, Hospital Santa Maria	Maria Luisa Figueira
Cardiovascular	Collection of samples from patients with Cardiovascular Diseases	Vascular Surgery Service, Hospital Santa Maria	Luis Mendes Pedro
Cirrhosis	Collection of samples from patients with Cirrhosis	Gastroenterology Department, Hospital Santa Maria	Carlos Ferreira
Cystic Fibrosis	Collection of samples from patients with Cystic Fibrosis.	Pulmonary Department, Hospital Santa Maria	Carlos Lopes
Hematology	Collection of samples from transplanted patients.	Hematology Department of Hospital Santa Maria	João Lacerda
Pre Eclampsia	Collection of samples from patients with Pre Eclampsia	Gynecology Department, Hospital Santa Maria	Nuno Clode
Psoriasis	Collection of samples from patients with Psoriasis	Dermatology Department, Hospital Santa Maria	Paulo Filipe
Rheumatic BioMarkers	Collection of samples from rheumatic diseases patients.	Faculdade de Medicina da Universidade Nova de Lisboa	Jaime Branco

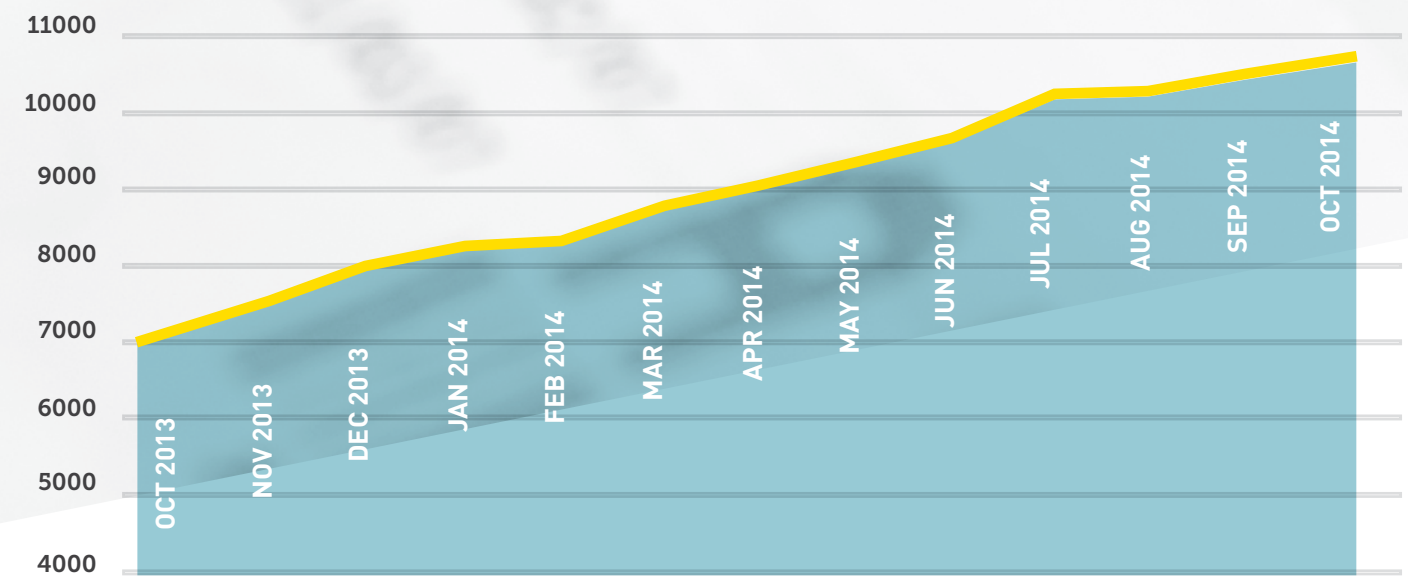
2012

Name	Description	Parties Involved	Principal Investigator
Brain Metastasis	Collection of samples from patients with brain metastasis.	Neurosurgery Department, Hospital Santa Maria	Cláudia Faria
Bone	Collection of femoral epiphysis, including bone and cartilage, from hip replacement surgery patients.	Rheumatology Research Unit (IMM), Orthopedics Department, Hospital Santa Maria	Helena Canhão
Controls	Collection of samples from controls, based on a questionnaire and interviewed by a physician.	Biobanco-IMM CAML	Biobanco-IMM CAML
Endocrinology	Collection of samples from patients with endocrinology disorders.	Endocrinology Department, Hospital Santa Maria	Sónia do Vale
Epireuma.pt	Collection of samples from a national epidemiological study on rheumatic diseases. A prospective follow-up is ongoing.	Sociedade Portuguesa de Reumatologia	Jaime Branco
Heart Failure	Collection of samples from patients with heart failure.	Cardiology Department, Hospital Santa Maria	Dulce Brito
Movement Disorders	Collection of samples from patients with neurological movement disorders, including Parkinson's disease.	Neurology Department, Hospital Santa Maria	Joaquim Ferreira
Neurotumors	Collection of samples from patients with brain tumors.	Neurosurgery Department, Hospital Santa Maria	Cláudia Faria
Rheumatoid Arthritis	Collection of samples from patients with rheumatoid arthritis. Link with detailed clinical data on Reuma.pt.	Rheumatology Research Unit (IMM), Rheumatology and Bone Metabolic Diseases Department, Hospital Santa Maria	Helena Canhão
Spondyloarthritis	Collection of samples from patients with Spondyloarthritis. Link with detailed clinical data on Reuma.pt.	Rheumatology Research Unit (IMM), Rheumatology and Bone Metabolic Diseases Department, Hospital Santa Maria	Elsa Sousa
Stroke	Collection of samples from patients with stroke, and controls.	Neurology Department, Hospital Santa Maria	Ruth Galdes, Sofia Oliveira
Synovial Fluid	Collection of samples from patients with rheumatic diseases.	Biobanco-IMM CAML Rheumatology and Bone Metabolic Diseases Department, Hospital Santa Maria	Helena Canhão
Synovial Membrane	Collection of samples from patients with rheumatic diseases.	Rheumatology Research Unit (IMM), Rheumatology and Bone Metabolic Diseases Department, Hospital Santa Maria	Elsa Sousa
Tumors	Collection of samples from gastrointestinal tract cancer, breast cancers and urogenital cancer.	Clinical and Translational Oncology Research Unit (IMM), Oncology and Pathology Departments, Hospital Santa Maria, National Tumor Bank Network and Hospital CUF	Luis Costa

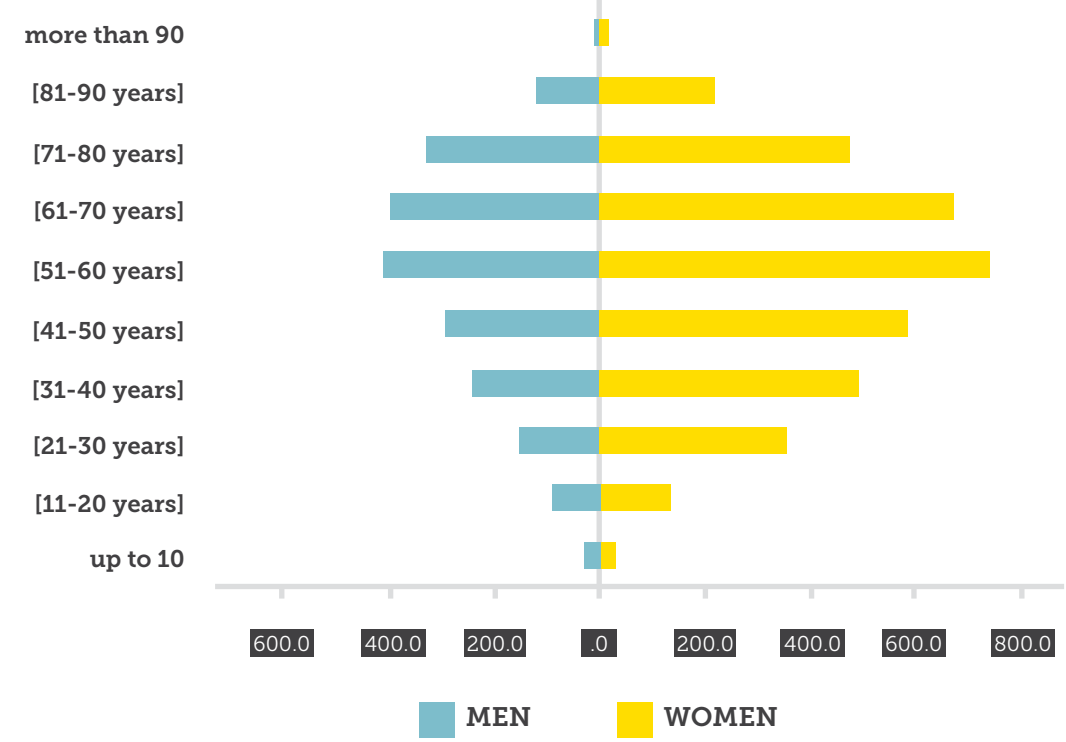
9 new collections started in the beginning of 2014 and 2 more are waiting for ethics committee approval to start.

DONORS

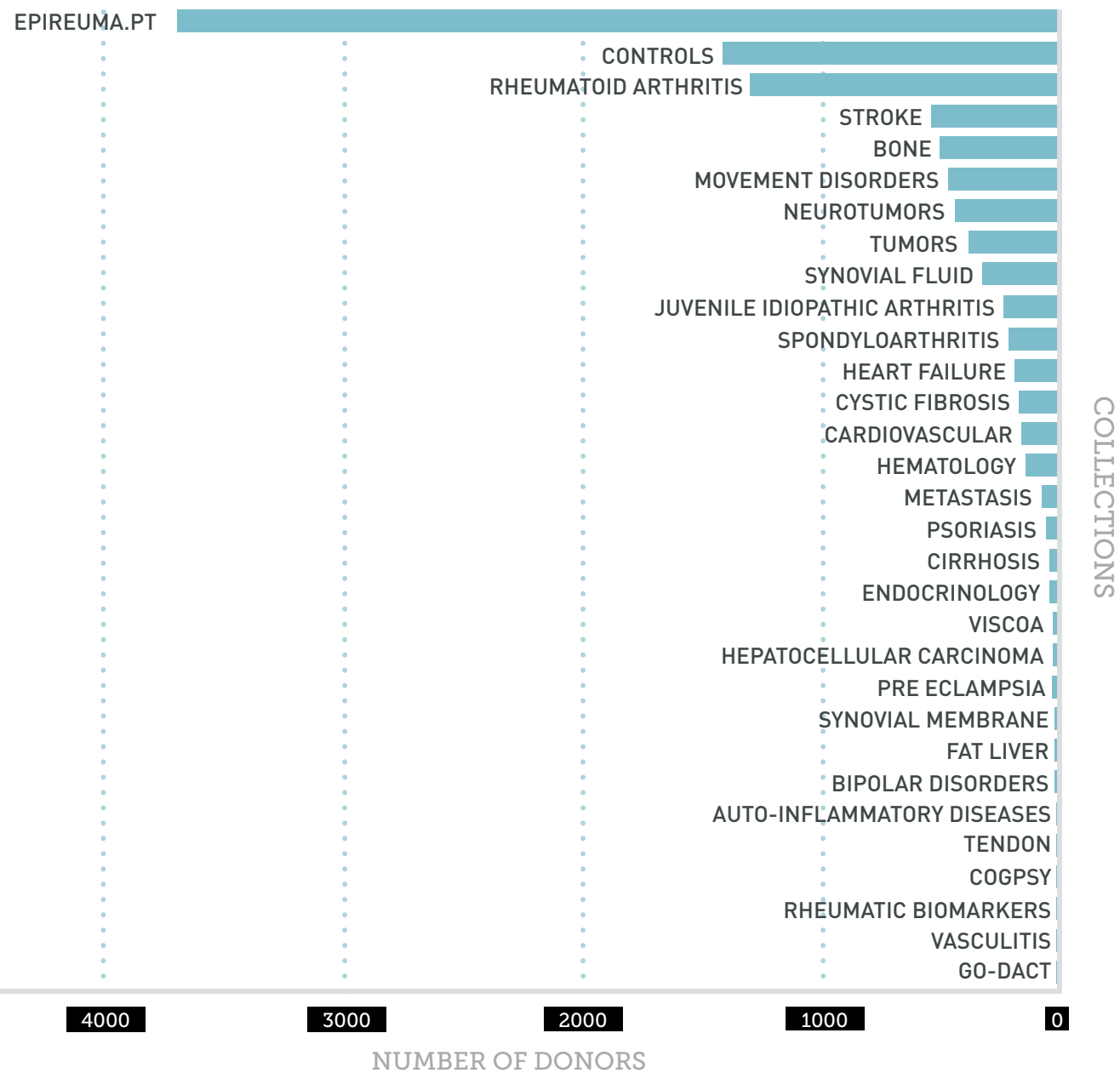
Since October 2013 up to October 2014, the number of individuals who donated samples to the Biobanco-IMM, CAML, increased 75% from 7108 to 10662 donors, with an average of 296 new donors per month.



In the donors population we found a predominance of the female gender, mostly in the 50-70 years age range.

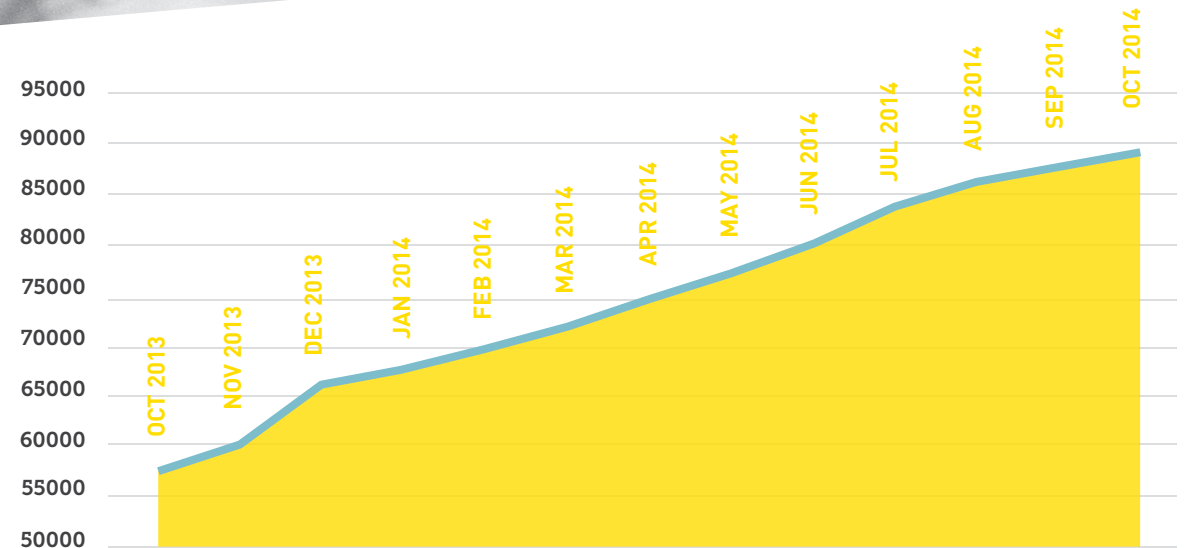


These donors are distributed by the 31 collections that received samples until October 2014, as shown below:

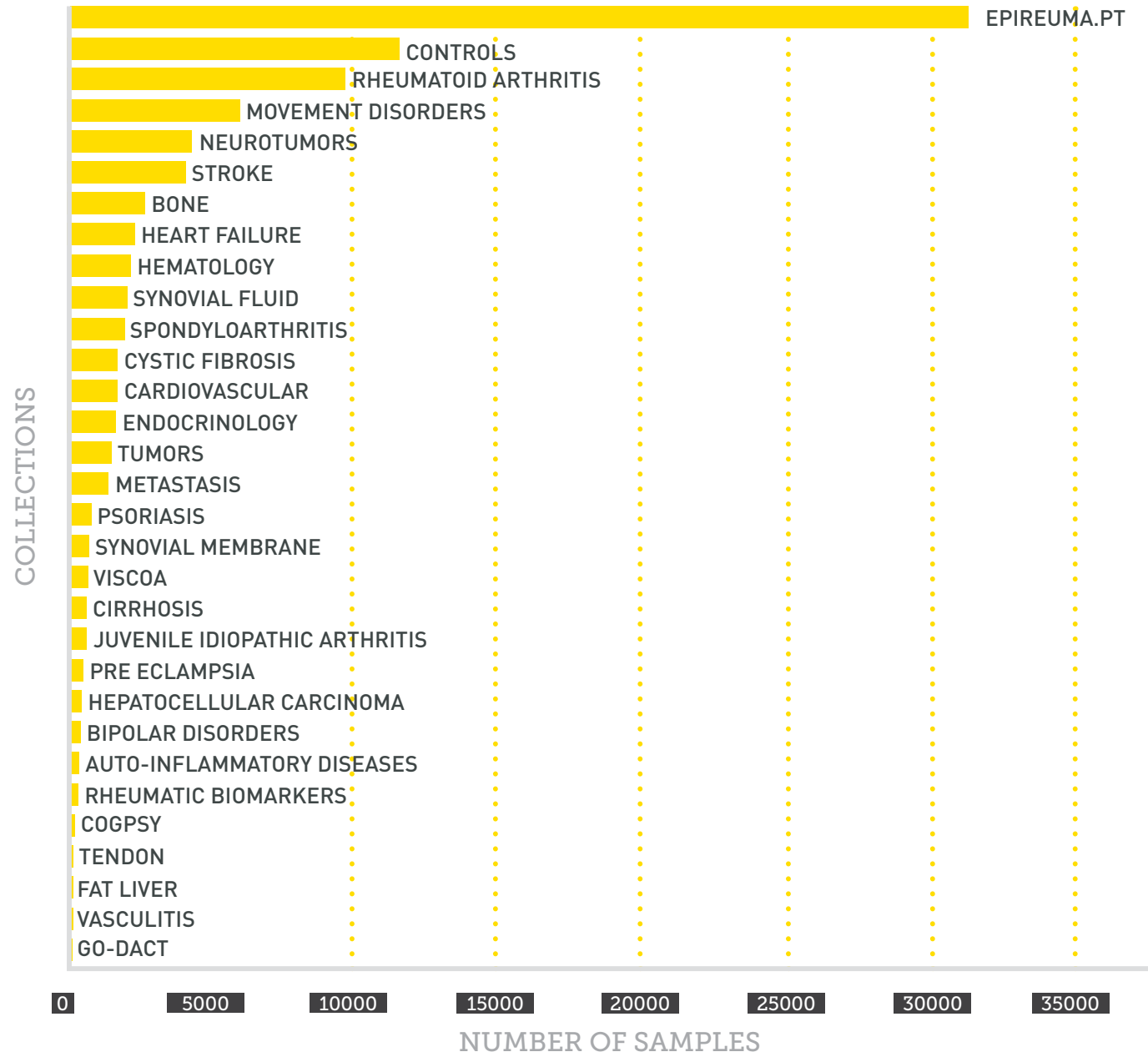


SAMPLES

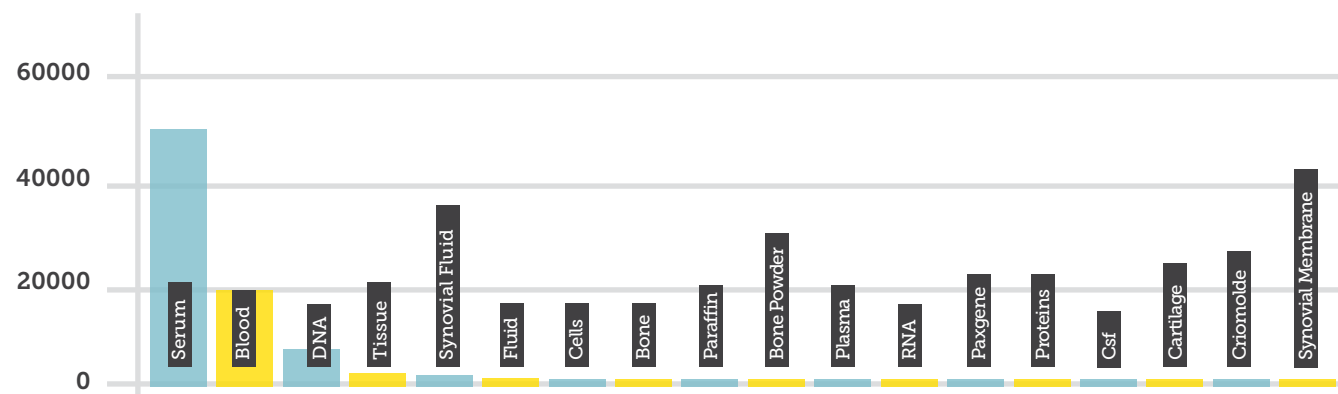
Since October 2013 up to October 2014, the number of samples in Biobanco-IMM, CAML, increased 77% from 57926 to 89282 at a rate of 2613 new aliquots per month.



These samples are distributed by the collections, as depicted below, with predominance of Epireuma.pt collection (35.8%), followed by Controls (13.7%) and Rheumatoid Arthritis (11.1%) collections.



From each donor different samples can be collected, according to the need of each collection. We store predominantly serum samples (56.7%), followed by whole blood (22.5%) and DNA samples (9.4%).



The table below indicates the type of sample in each collection.

Collection Name	Type of Sample	DNA	PAXgene tubes	RNA	Protein	Cells	Snap Frozen	OCT Frozen	FFPE
Autoinflammatory Diseases	Blood	✓					✓		
	Serum						✓		
Bipolar Disorders	Blood	✓				✓	✓		
	Serum						✓		
Bone	Blood	✓					✓		
	Serum						✓		
	Bone Powder			✓			✓		
	Femoral Epiphysis*	✓		✓	✓		✓	✓	
Controls	Blood	✓					✓		
	Serum						✓		
Cystic Fibrosis	Blood	✓					✓		
	Serum						✓		
Endocrinology	Saliva						✓		
Epireuma.PT	Blood	✓					✓		
	Serum						✓		
Heart Failure	Blood	✓					✓		
	Serum						✓		
Hematology	Blood	✓				✓	✓		
	Serum						✓		
Metastasis	Blood	✓					✓		
	Serum						✓		
	LCR					✓			
Movement Disorders	Blood	✓	✓				✓		
	Serum						✓		
Neurotumors	Blood	✓					✓		
	Serum						✓		
	LCR					✓	✓		
Rheumatoid Arthritis	Blood	✓					✓		
	Serum						✓		
Rheumatic Diseases BioMarkers	Blood	✓					✓		
	Serum						✓		
Spondyloarthritis	Blood	✓	✓				✓		
	Serum						✓		
Stroke Biobank	Blood	✓					✓		
	Serum						✓		
Synovial Fluid	Blood	✓					✓		
	Serum						✓		
Synovial Membrane	Blood	✓	✓				✓		
	Serum						✓		
	Synovial Fluid						✓		
Solid Tumors	Synovial Membrane							✓	
	Breast Tumor								✓
	Esophagus Tumor								✓
	Gastric Tumor								✓
	Colorectal Tumor								✓
Juvenile Idiopathic Arthritis (AIJ)	Paired Healthy Tissue							✓	
	Blood	✓					✓		
Cirrhosis	Serum						✓		
	Blood	✓					✓		
Cogpsy	Serum						✓		
	Blood	✓					✓		
Cardiovascular	Serum						✓		
	Blood	✓					✓		
Fat Liver	Serum						✓		
	Blood	✓					✓		
GO-DACT	Blood	✓					✓		

*Sample available for structural and mechanical tests.



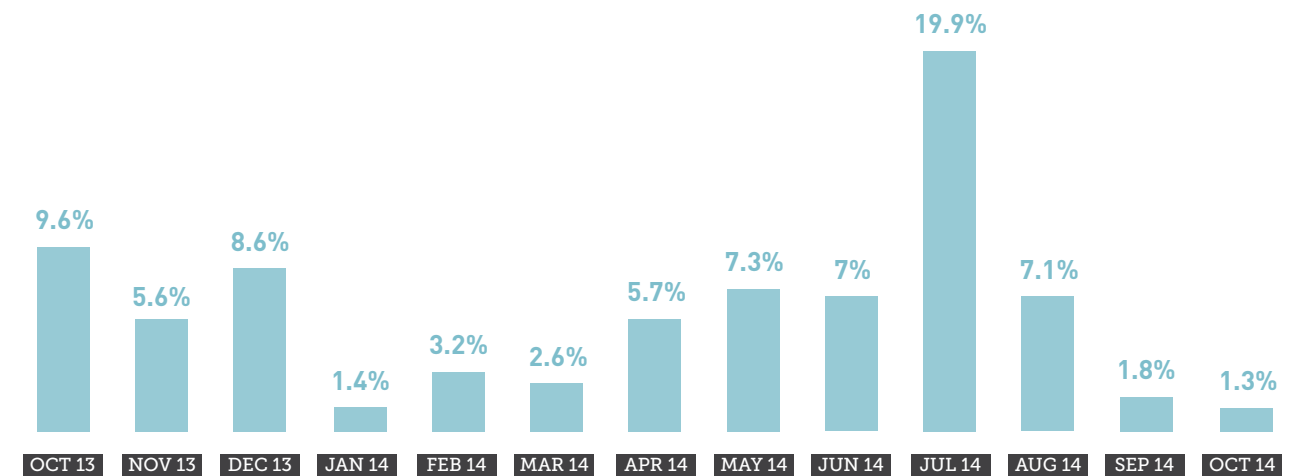
Sample quality

QUALITY CONTROL OF SERUM SAMPLES

Sample quality is one of the most important aspects of biobanking, since it can affect several downstream procedures. The lifecycle of a sample starts with sample transport from the site where it is harvested to the processing site for long-term storage.

In samples such as DNA and RNA the quality control method is standardized. However, for serum and other biological fluids there is no standard method of assessing the sample quality, which can be affected by freezing cycles, time before centrifugation, centrifugation temperature and duration, etc.

One effect that should be taken into consideration is hemolysis of the specimen, as it impacts the accuracy of laboratory tests.



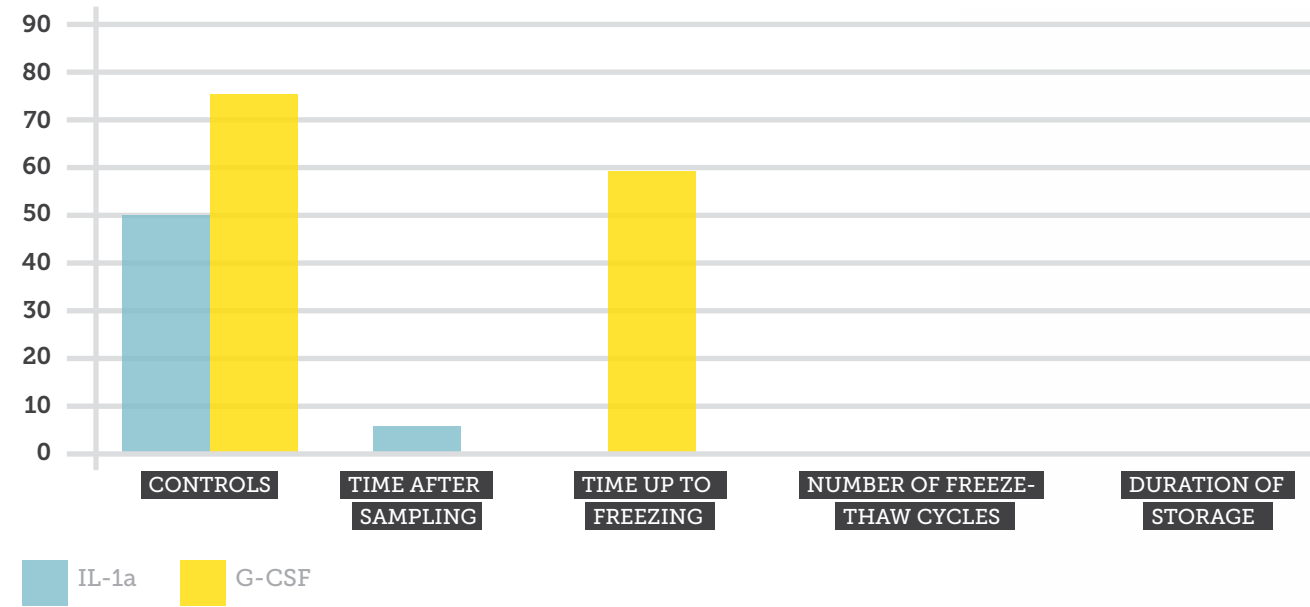
At Biobanco-IMM, only 6.7% of the serum samples collected between October 2013 and October 2014 have a negative quality control report and the higher incidence of hemolysis may be related with temperature, since we identified higher numbers of hemolyzed serum in the colder and warmer months.

BIOMARKERS FOR QUALITY CONTROL IN SERUM SAMPLES

Quality control of serum samples has been the subject of intense debate in European meetings on Biobanks and Biobanking. Therefore, during this year Biobanco-IMM performed several test to find potential biomarkers for quality control of the serum samples stored at Biobanco-IMM.

200 serum samples were grouped according to the time after sampling, time to freezing, duration of storage or number of freeze-thaw cycles and were compared with a control group of samples that were processed according to the Biobanco-IMM standards. CD40L, GM-CSF, IL-1a, G-CSF and VEGF were measured in the serum by ELISA.

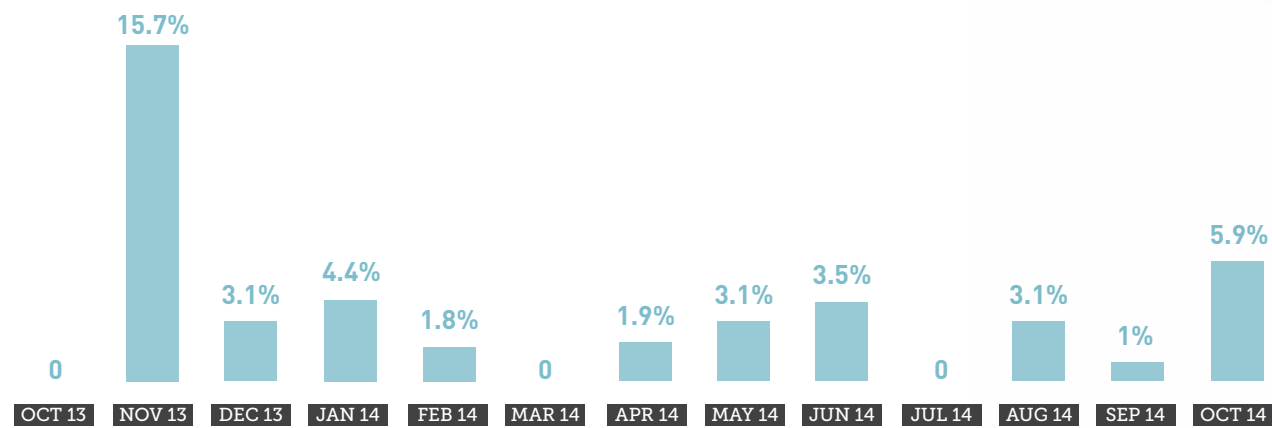
The results show that IL-1a and G-CSF have significant differences in the study groups and in some cases the concentrations of these biomarkers were incalculable, which means there was a loss of activity.



According to our findings, IL-1a and G-CSF could be good indicators to evaluate the quality of serum samples.

QUALITY CONTROL OF DNA SAMPLES

Concerning the DNA extraction, the quality control procedure consists in the absorbance ratio at 260 and 280nm and the run profile of 1% agarose gel. Samples with quality are those with concentrations above 10ng/μl, absorbance ratio between 1.7 and 2.0 and marked bands in the gel.



According to these criteria we considered that 3.9 % of the DNA samples fail the quality control and the highest numbers were identified in November 2013, January 2014 and October 2014.

THE STROKE COLLECTION

The stroke collection was created to support translational research projects of the Clinical Neurological Unit of the Institute of Molecular Medicine, namely project related to identification of biomarkers of stroke etiology, recurrence and prognosis.

Samples began to be collected in August 2012. Till now around 500 samples have been collected. These are serum, plasma and DNA samples from patients with acute (< 72 hours) ischemic stroke, transient ischemic attacks, haemorrhagic stroke and subarachnoid haemorrhages.

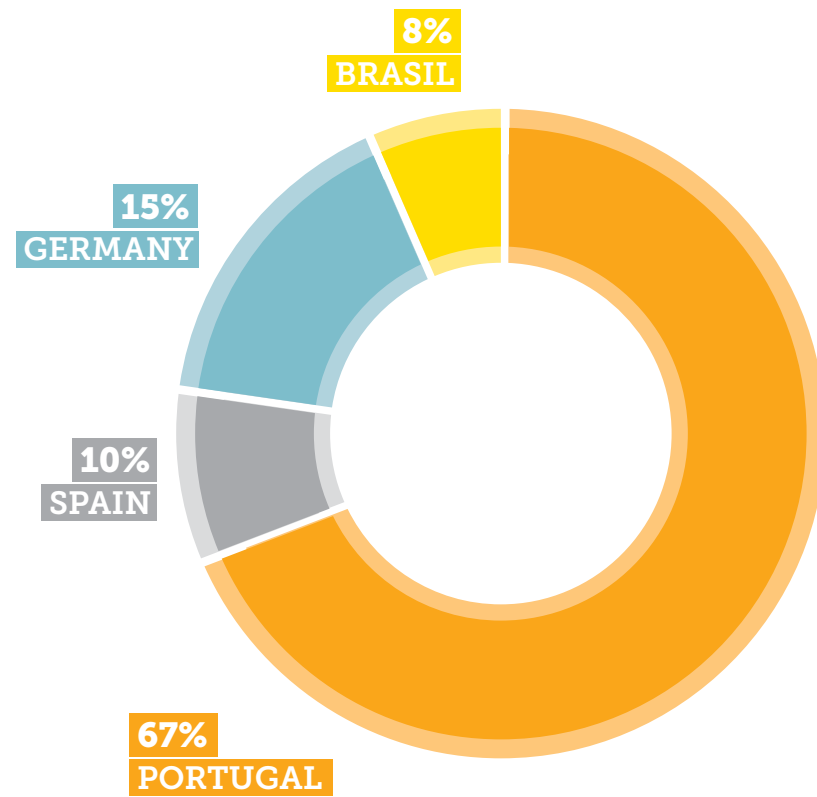
Samples are collected at the stroke unit of the Neurology Department of the Hospital de Santa Maria. Clinical information associated to each sample includes clinical characteristics, vascular risk factors, disability scales, type of treatment, and etiological diagnosis at three months follow-up. Stroke physicians, nurses, the biobank team, patients and family have been fundamental for the success of the stroke collection.

Currently two projects are undergoing that requested sample from the biobank. One is a national project that aims to identify biomarkers of cardioembolic stroke related to atrial fibrillation, the other is an international projects that aims through a genome-wide association study (GWAS) to identify genomic risk loci for ischemic stroke. We aim to increase national and international cooperation projects that will allows us to maximize the use of samples from the stroke collection and to further increase knowledge regarding stroke pathophysiology and treatment."

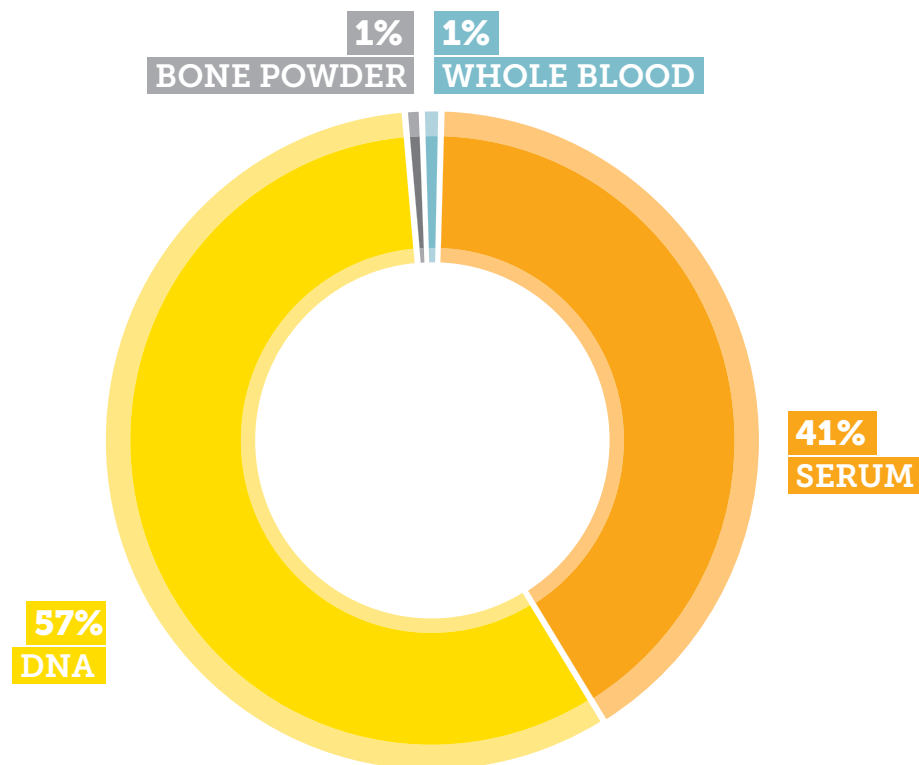
Catarina Fonseca, MD Neurologist, Hospital Santa Maria
José Ferro Lab

SAMPLES REQUESTS

During this year we participated in several international networks and samples from the Biobanco-IMM, Lisbon Academic Medical Centre were requested for research projects. During 2014, 2396 samples have left Biobanco-IMM increasing the demand by 78.8% as compared to last year, mostly through collaboration with research institutions in Portugal (67%), Germany (15%), Spain (10%) and Brasil (8%).



DNA was the sample type that received more requests; 1371 aliquots of DNA (57.2%) have left the Biobanco-IMM, Lisbon Academic Medical Centre.



"In stroke genetics, the gold standard currently is independent replication of primary findings. Due to our prior collaboration with the Biobanco-IMM in METASTROKE (Traylor et al., Lancet Neurology, 2012) and the positive experiences, we decided to integrate data from the Biobanco-IMM into the replication of our "1000 Genomes imputation in ischemic stroke" project. Here, we are looking much closer into the genetic structure of ischemic stroke cases and stroke-free controls than ever before. By imputing over 5 Million genetic variants, we are hoping to unravel more of the heritability regarding ischemic stroke. Our primary findings were replicated using Sequenom genotyping of highly significant SNPs. To this end, we were contacting Biobanco-IMM to send samples of ischemic stroke cases and controls to Munich for genotyping. Our primary contact was Dr. Sofia Oliveira who managed the collection of the samples and the shipping. Further information was provided by Dr. Ruth Galdes and Luisa Mendonca. The shipping of the samples was quick and no problems were detected when first screening the DNA. After Sequenom genotyping, we found that the samples were of very high quality and the genotyping was successful in all of the samples. Phenotypic data (gender, stroke subtype, etc.) were provided to us in an uncomplicated and quick fashion. After a first round of analyses, we found some phenotypic data to be missing. The collaborators of Biobanco-IMM were very responsive and the missing data were provided to us within hours. The collaboration with Biobanco-IMM was very pleasant and we will work with them again, should the opportunity arise. The International Stroke Genetics Consortium (ISGC) and the METASTROKE collaboration can only recommend working together with Biobanco-IMM for genetic projects."

Rainer Malik, PhD Chair of the ISGC Analysis committee
Member of the ISGC scientific committee

"Primary spontaneous pneumothorax (PSP) is characterised by the presence of air in the pleural cavity that occurs without preceding trauma or known cause in individuals with no lung disease. Despite elevated incidence and recurrence rates, little is known about its aetiology. So far, the genetics of PSP remained largely unresolved and virtually no research had been dedicated to the identification of genetic factors for risk or recurrence of sporadic PSP.

To identify genetic variants contributing to sporadic PSP risk, we conducted the first PSP genome-wide association study (GWAS). Two replicate pools of 92 Portuguese PSP cases and of 129 age- and sex-matched controls were allelotyped in triplicate on the Affymetrix Human SNP 6.0 arrays. 101 out of the 108 most significant SNPs were technically validated by individual genotyping. Replication of validated SNPs was carried out in an independent Portuguese dataset of 100 cases and 425 controls.

For the independent replication stage, the Biobanco-IMM contribution was crucial since 150 controls were readily available (with age and gender criteria that we required) for us to conduct the case control study without having to carry out the control collection as well as the DNA extraction and sample preparation. This enabled us to perform our study in a much more efficient and less time-consuming manner, contributing decisively for its success."

Inês Sousa, PhD Pos-Doc Soliveira lab, Instituto de Medicina Molecular
Project: I-GASP: an Integrative Genetic and genomics Approach to primary Spontaneous Pneumothorax susceptibility

"My laboratory has requested samples from the IMM-Biobank to investigate the genetic underpinnings of several complex diseases, namely stroke, intracranial aneurysms and primary spontaneous pneumothorax. Each time, the application process was seamless and high-quality DNA samples were promptly provided upon approval of the project. The availability of this biobank has been crucial for our research to substantially increase the power of our genetic studies in a short timeframe. We plan to continue to use this invaluable resource in the near future, but also to continue to deposit in the biobank samples from our collections for the benefit of the scientific community."

Sofia Oliveira, PhD Group Leader Soliveira Lab, Instituto de Medicina Molecular

partnerships

Biobanco-IMM, Lisbon Academic Medical Centre works with several public and private partners. It is our belief that the consortium of Biobanco-IMM, Lisbon Academic Medical Centre partners is motivated to support the activities that will foster the development of biomedical research in Portugal. We further believe that partnership ought to be flexible in order to meet the motivations of each potential partner. Biobanco-IMM, Lisbon Academic Medical Centre collaborates with scientific societies, biotechnology and pharmaceutical companies, banks, as well as communication and design companies. The consortium has supported equipment, software, consumables and human resources allowing the full operational potential of Biobanco-IMM since October 2013. The total funding obtained reached 80.000€.

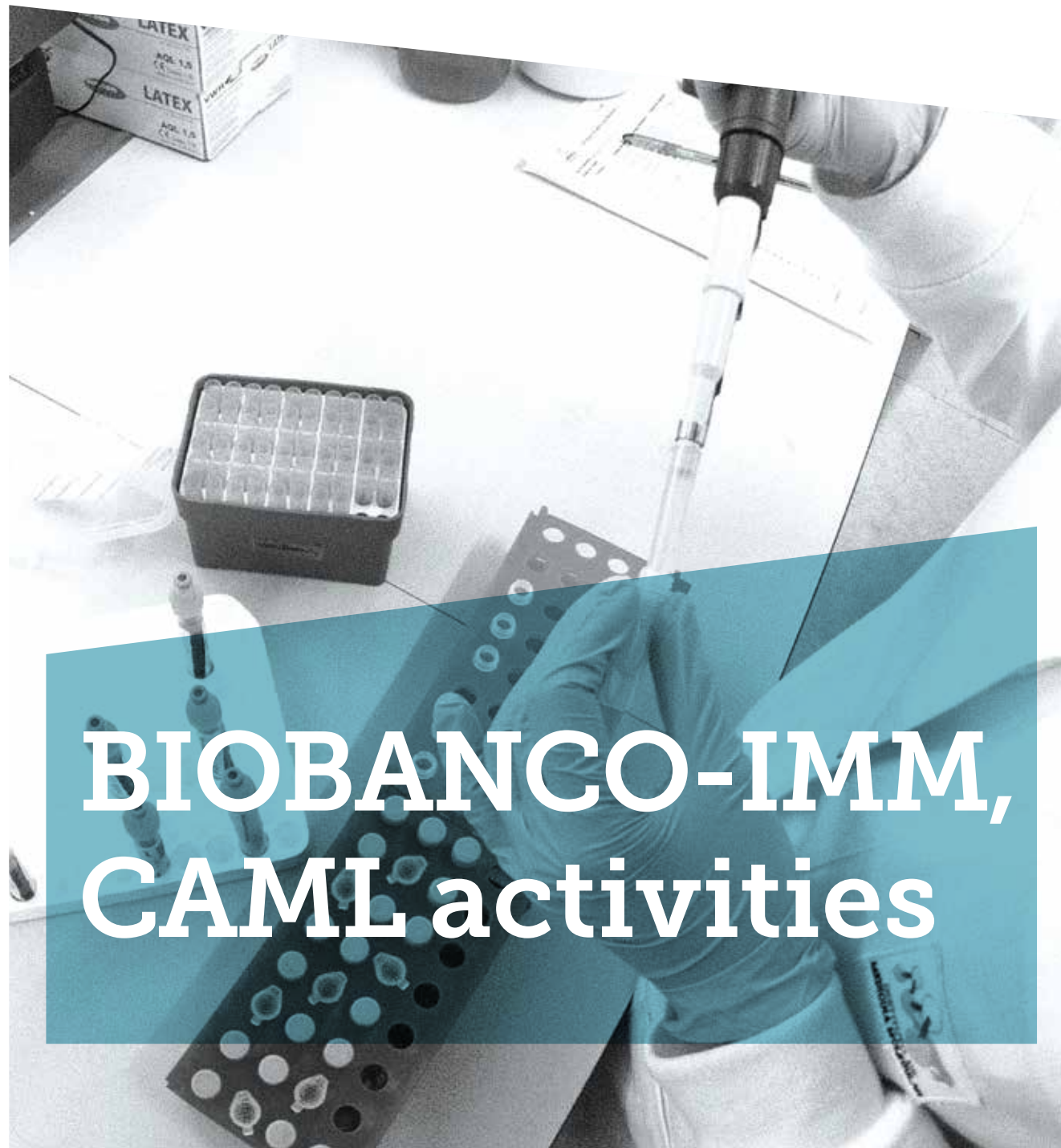


Fundação Calouste Gulbenkian has specifically supported the synovial tissue collection and Fundação Millennium has specifically supported the neurotumors collection.

Financial analysis

With the support of our partners we have made the following investments since October 2013





BIOBANCO-IMM, CAML activities

Biobanco-IMM, Lisbon Academic Medical Centre also promotes the inclusion of young scientists in the labor market.

"Working at Biobanco-IMM has been a rewarding experience. Not only can I improve my technical skills but also I'm constantly been challenged to think ahead.

In Biobanco-IMM I have several functions like the collecting, processing and storage of samples, quality control of DNA samples, processing tumors for later extracting RNA and I help in the maintenance of the cell culture. In the laboratory, besides the work routine, also I have the opportunity to learn new protocols and new techniques.

To do all that in the laboratory made me see how important it is to have a biobank with different types of samples to offer to those who want to do research and how valuable is to have a well trained team to guarantee the rigor and the quality of all the laboratory work."

Filipa Garcia Biomedical scientist BSc
Biobanco-IMM



Open days

The richness and usefulness of structures such as Biobanco-IMM, Lisbon Academic Medical Centre depends on the quality and diversity of biological samples. Samples from donors representing the population are central for every biobank. The effectiveness of a biobank depends almost equally from samples representing diseases as well as those that characterize the general population. These samples can be used as controls, that may be age and sex matched, if needed. These donors do not need to be entirely healthy. They are selected for studies because they don't carry the specific disease on study.

One of the central aspects in selecting control donors is the clinical questionnaire. It should be easy to fulfill by most of the individuals. Biobanco-IMM, Lisbon Academic Medical Centre has created a simplified questionnaire that is monitored by a clinician when collecting samples from volunteers. Our questionnaire is shorter than most of other biobank questionnaires, but as the information is checked by a clinician it allows us to validate the data properly and ensure that no vital information is missed.

Only volunteers able to give informed consent may contribute with samples and clinical information to Biobanco-IMM, Lisbon Academic Medical Centre. Despite legal complexities that are inherent to a biobank informed consent, Biobanco-IMM personnel makes an effort to thoroughly and clearly explain its content to every volunteer, and any doubt is clarified as simply as possible.

To be able to collect a diverse collection of control donors, Biobanco-IMM collaborates with several organizations that facilitate the contact with the general population, such as private laboratories, students and patients associations. Other collaborations are under way.

07 APR 2014

Open Day Abbvie

10 APR 2014

Open Day Associação Nacional dos Doentes com Artrite Reumatoide

30 APR 2014

Open Day Bayer

12 MAY 2014

Open Day Pfizer

16 JUN 2014

Open Day Jassen

07 JUL 2014

Open Day Lilly

10 SEP 2014

Open Day Leo

18 SEP 2014

Open Day Reitoria da Universidade de Lisboa

30 SEP 2014

Open Day Instituto Superior Agronomia

02 OCT 2014

Open Day Tagus Park

10 OCT 2014

Fórum da Liga dos Doentes Reumáticos

The commitment of AbbVie is to support processes of research and development aimed at creating innovation, based on public-private partnerships and new methodologies. We recognize that Biobanco-IMM is a scientific organization dedicated to efficient research processes and development. We believe that the partnership between AbbVie and Biobanco is a combination of strengths that contributes to improving the health of patients, an opportunity to overcome the expectations, responding to global needs in terms of health."

Sandra Silva Pedro
Key Account Manager Abbvie

During 2014 several actions of clinical data and blood sample collection were performed and allowed Biobanco-IMM to achieve more than 1501 control samples.

The *open days* allow us to enlarge not only our control collection but also to enrich other collections. Soon we realized about the importance of the control samples for researchers. During this year 68.5% of the samples that left Biobanco-IMM were from the controls collection. In order to raise public awareness to the importance of their contribution to science and to promote Biobanco-IMM, Lisbon Academic Medical Centre we settled collaboration with 2 private laboratories: Joaquim Chaves and Germano de Sousa and with Portuguese Institute of Blood and Transplantation.



Planned activities for 2015

Promote the creation of a national network of biobanking facilities, sharing common standard operating procedures and using the same information system.

Integrate international biobanking networks, namely the BMMRI-ERIC (Biobanking and BioMolecular resources Research Infrastructure) network - European Health infrastructure on Biobanking

SCIENTIFIC DEVELOPMENT AREAS

- Promote and encourage sample usage by research groups
- Consolidation and enlargement of the primary cell culture
- Lymphocytes Immortalization
- Improve quality control protocols for all types of samples
- Promote collaboration with Instituto de Medicina Legal for cadaveric samples
- Increase scientific output (published papers and Theses- advanced training)

EXPANSION OF THE COLLECTIONS:

- Increase the number of donors aiming at 20,000
- Increase the number of samples aiming at 100,000
- Increase the number of control donors to up 2,500, expanding collaborations, namely with Primary Care Health Units
- Increase the range of collections

IMPROVEMENT OF INFRASTRUCTURE:

- Increase laboratory and storage space.

IMPROVEMENT OF OPERATIONAL ACTIVITIES:

- Strengthen the administrative support
- Promote safe and ethical information management by the researchers involved in the various collections
- Improve the quality of the LIMS data

CONSOLIDATE VISIBILITY:

- Disseminate Biobanco-IMM among research institutes and researchers as a key resource for biomedical research.
- Continue to bring Biobanco-IMM closer to the public.

ENLARGE PARTNERSHIPS:

- Increase partnerships with research institutes and biotechnology companies.
- Establish institutional partnerships with health units.



Adresses and contacts

Biobanco-IMM is located at the Egas Moniz building, on the campus of the Lisbon Academic Medical Centre, that hosts the Faculty of Medicine of the University of Lisbon, as well as the Hospital de Santa Maria and the Instituto de Medicina Molecular (IMM).

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