



Tumorbank UZ Brussel

In 2003 Tumorbank UZ Brussel started to freeze tumour samples for future research. Patients are informed that residual, tumoural tissue might be frozen and kept at -80°C (after necessary steps for diagnosis). When available, also matching normal tissue is frozen and paraffin blocks are created. Besides the tissue samples, also relevant clinical and non-clinical data of sample and patient are stored in a coded way (only identifiable for collaborators of the Tumorbank UZ Brussel). Every patient not agreeing with this procedure has the possibility of opposing through his treating physician.

In 2011 the Tumorbank UZ Brussel started to collect whole-blood samples so researchers have the availability to dispose of reference DNA. Every patient involved in this project is asked to sign the informed consent, consenting with the withdrawal, storage and scientific use of his blood.

All these activities have led to a collection of more than 2000 unique frozen tumour samples, with matching normal tissue, paraffin material and blood. This collection provides an invaluable source of material for clinical, translational research, leading to new insights in cancer mechanisms, diagnostics and therapies.



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Activiteitencentrum Biobanking



Collection and storage of human biological materials (HBM) (in biobanks) for use in research is key to define better diagnostics and to develop better treatments for patients. To this effect the University Hospitals Leuven, as an Academic Medical Centre, has a very close collaboration with the Biomedical Sciences Group of the KU Leuven, being the same legal entity, but also with very many national and international groups, both in academia and industry. Since several decades HBM has been obtained, both as leftover material and as primary research material, and stored in decentralized biobanks of Pathology, Laboratory Medicine, Genetics and several clinical departments.

In 2007 a central initiative was started to comply with the changing Belgian legislation, to generate a generic informed consent and ethical code, to organize a generic data model and IT infrastructure and to create a central storage facility. The centralized facility is located in the ON4 building (Herestraat, 49). The UZ Leuven also participates in several Flemish, national and international initiatives to create a more transparent model for biobanking and research related to HBM.



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Biobanque Hôpital Erasme-ULB

From around 2000, aware of the major input of the biobanking in research; we decided to collect samples from residual human tissues, we opted for developing a generalized type of biobank including normal, inflammation and tumour samples but also specific biobanking (i.e. tissues from grafted patients). Tumour samples cover a wide variety of tumours and more particularly from brain, gastrointestinal tract and endocrine system.

Now, the tumourbank of the Pathology Laboratory of the Erasme Hospital is a part of the "Biobanque Hôpital Erasme-ULB" and consists of frozen and paraffin-embedded tissues. Using paraffin blocks, we have also customized specific tissue microarray to increase the availability to researchers.

Our goal is to develop specific tumour biobanking with high scientific added value such as glioblastoma with a complete genomic signature.

The tumourbank is integrated in the ISO15189 certified pathology laboratory; a specific quality system, adapted from the most recent scientific guidelines, is applied to our tumourbank. Moreover ULB is involved in Wallon and national initiatives to promote synergy between biobanks.

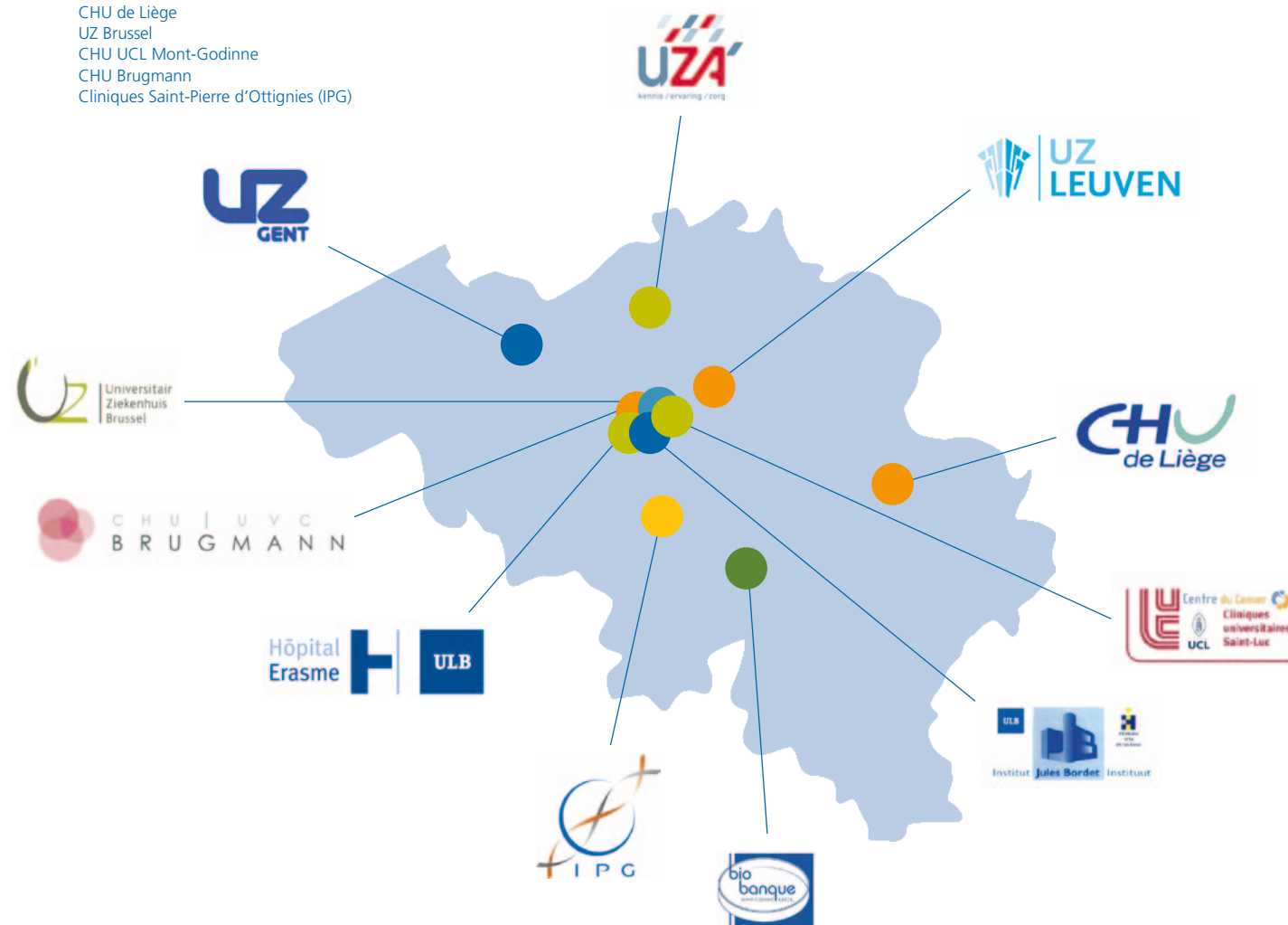
All the steps from storage to delivery are realized in the respect of regulation and ethical rules.

Our biobank is involved in different scientific projects particularly in the development of biomarkers.

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If you need more information, please contact Ms Flavienne Sandras (biobank manager): flavienne.sandras@erasme.ulb.ac.be or consult the website www.hopitalerasme.be > services diagnostiques > anatomie pathologique

Partners

Cliniques universitaires Saint-Luc
UZ Gent
Hôpital Erasme
UZ Leuven
Institut Jules Bordet
UZ Antwerpen
CHU de Liège
UZ Brussel
CHU UCL Mont-Godinne
CHU Brugmann
Cliniques Saint-Pierre d'Ottignies (IPG)



Belgian Cancer Registry



service public fédéral
SANTÉ PUBLIQUE,
SECURITE DE LA CHAÎNE ALIMENTAIRE
ET ENVIRONNEMENT



federale overheidsdienst
VOLKSGEZONDHEID,
VEILIGHEID VAN DE VOEDSELKETEN
EN LEEFMILIEU

Centre du cancer
Kankercentrum

Contact

Biobank team
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www.virtualtumourbank.be

How to access the catalogue of the BVT?

1. Go to www.virtualtumourbank.be
2. Download and fill in the **catalogue application form**
3. Send the form to biobank@kankerregister.org
4. Review & decision by the BVT Steering Committee
5. Complete and sign the **catalogue access agreement**
6. Send the form to biobank@kankerregister.org
7. Access is provided

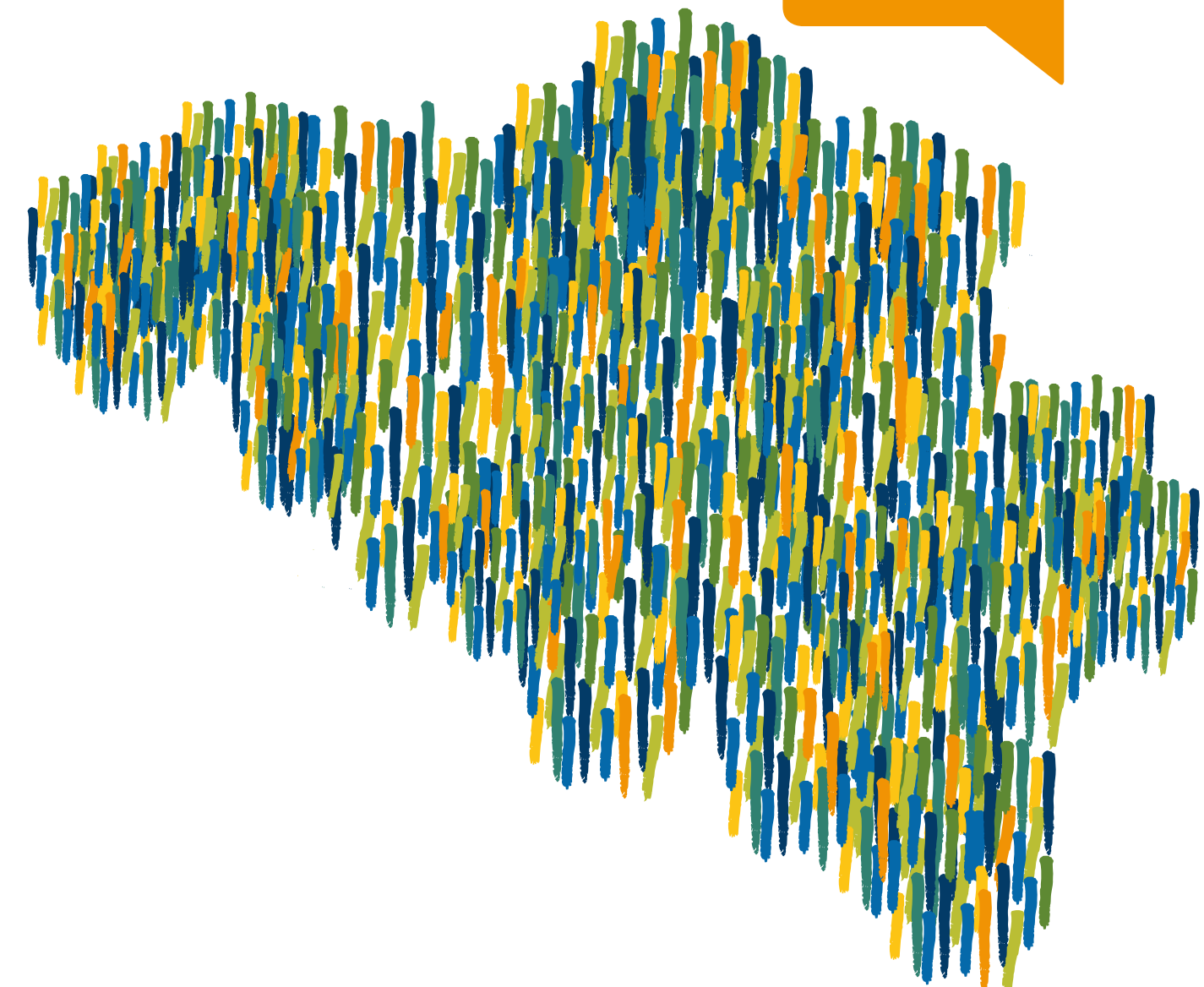
Belgian Cancer Registry



THE BELGIAN VIRTUAL TUMOURBANK

Financed by the Belgian Ministry of Public Health as part of the Belgian Cancer Plan

Many partners
One ambition



The Belgian Virtual Tumourbank Initiative

The Belgian Cancer Registry (BCR) is proud to present the Belgian Virtual Tumourbank (BVT) project, which consists of a network of eleven Belgian university hospitals. The BVT catalogue allows the localization of tumour samples available for scientific research, using several search criteria by means of a web application. The samples originate from residual human tissue material preserved in the tumour banks of the participating hospitals.

Each partner has contributed to the success of this initiative. Five university hospitals started the Belgian Biobank Network in 2007 with the financial support of the Foundation Against Cancer (Stichting tegen Kanker - Fondation contre le Cancer). This first consortium evaluated the biobanking situation in the participating institutions and adopted the model of a virtual tumour bank. In 2008, three other university hospitals joined the consortium; in the same year, it was also decided that the Belgian Biobank Network would be co-ordinated by the Belgian Cancer Registry. In 2010, three additional university hospitals joined the network. These eleven partners present their activities in this brochure.

In 2008, the Minister of Health and Social Affairs, Mrs Onkelinx, launched The Cancer Plan, emphasizing the importance of an inter-university tumour bank network as an essential tool for research. Since then, structural funding has been contributed yearly to each of the eleven institutions in order to improve the infrastructure and sustainability of their tumourbank.

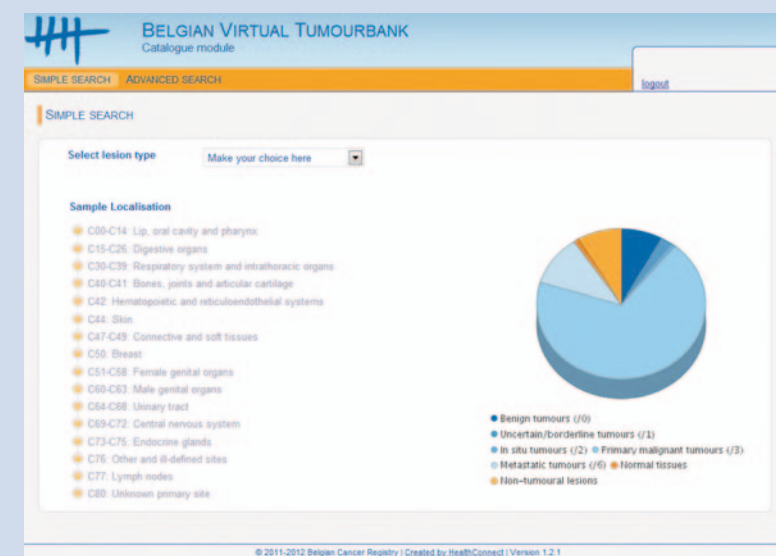
Strategic decisions are made by the Steering Committee of the BVT. This co-ordinating committee is composed of oncology specialists (radiation oncologists, medical oncologists, pathologists, haematologists) from the eleven tumourbanks, and representatives from the Federal Public Service of Public Health, the Belgian Cancer Center, and the Belgian Cancer Registry. Locally, the samples in the tumour banks are managed by scientific collaborators, supervised by a local steering committee. Proper management of the samples, standardised recording of the medical data, and procedures for storage are essential to guarantee the quality of samples.

As described in the Cancer Plan, the funding also supports the central co-ordination of the Belgian Virtual Tumourbank and the subsequent creation of a catalogue, task that have been assigned to the BCR. The tumour samples remain physically within the local tumour banks; the BCR collects and centralises the associated data to display the availability of samples throughout the participating tumour banks. The BCR is also responsible for storage of the centralised data, quality control and data validation.

In practice, this work is carried out in close collaboration between the participating institutions and the Belgian Cancer Registry, with the support of the Federal Public Service of Public Health and the Belgian Cancer Center. Two applications have been created and are up and running to meet the project's goals: a registration module (BVTr) to centralise the data securely, and a catalogue module (BVTc) to view the availability of tumour material in Belgium for approved scientific research. The Steering Committee has established a well-defined set of criteria, which researchers must meet in order to acquire access to the catalogue.

Special attention is given to the patient. It is important to build trust between patients and researchers. By making their residual tumour tissue available for translational research under strictly controlled procedures, the patients are contributing to the improvement of therapeutic and diagnostic strategies for cancer patients.

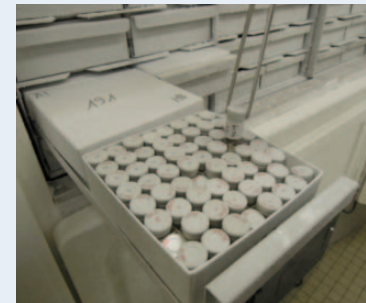
Ultimately, this initiative has one great ambition: to combine forces to support the fight against cancer and pave the way to a higher quality of healthcare in Belgium.



APD-TumorBiobank Bimetra Gent

For many years, the Pathology Department (APD) of the University Hospital Ghent (UZG) has been collecting residual material from all sorts of tumours. This tumour tissue is fast frozen and stored with corresponding normal tissue for further tests. Molecular analysis of these (rare) tumours can result in the discovery of new diagnostic, prognostic and therapeutic tumour markers. The APD-TumorBiobank acts as a cornerstone of translational cancer research in academic, medical and industrial settings. The APD-TumorBiobank stores tissues collected according to standardized and accredited procedures, insuring traceability and anonymity.

Recently, the APD-Tumorbiobank is incorporated within the central Biobank facility, that is part of the Platform 'Menselijk Lichaamsmateriaal' (MLM) an organization structure for all tissue- and strategic biobanks. The central biobank is coordinated by Bimetra, the Clinical Research Centre of the UZG and Ghent University. The Bimetra Biobank will expand into an operational facility of 200m² by 2014, aiming at the set-up of a state-of-the-art biobank in the context of (multicentric) translational projects.



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BioBanque CHU UCL Mont-Godinne

The biobank of the university hospital CHU UCL Mont-Godinne was set up in April 2010. This structure enables the daily collection of human biological samples (neoplastic or not) in the respect of ethical, legal and quality requirements. It is a very dynamic structure which aims at "printing" a sample conservation culture in the institution with a particular attention to promote collaborative research projects in parallel to its development.

Standards Operating Procedures have been set up for each step leading to the conservation and use of samples. This is essential to guarantee the high quality of sample and the respect of legal and ethical regulations. More than 9000 samples (tissue, bone marrow, blood,...) from patients with various pathologies are now available for research projects.

The cryogenic equipment includes freezers (-20°C and -80°C) and a gas-phase liquid nitrogen tank (-196°C). A temperature controlled freezer is also available and guarantees to conserve an excellent viability of cryopreserved cells. This is of great interest for the development of particular projects like the xenotransplantation of leukemic bone marrows.



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Biothèque Universitaire de Liège

The access to human specimen is the cornerstone of the biomedical, medical and pharmaceutical research. Furthermore, due to the evolution of medicine, the needs for biospecimens keep growing. The mechanisms to collect, process, store and handle samples in appropriate ethical, technical and logistical conditions are now well identified. In this regard, the concept of "biobank" is born. In Liège, this results in a partnership between CHU and ULg (GIGA), called "Biothèque Universitaire de Liège" (BUL).

The BUL is only dedicated to scientific research and not intended for human application. The samples collected arise from residual material from human tissues provided in the context of an exploration or clinical follow-up.

The BUL is also integrated into the Pathology department of CHU Sart Tilman, allowing optimal management of samples. Different types of tumour samples are available (breast, colon, lymph nodes, brain, liver, kidney...).



Contact:
Come and visit us on the BUL website (www.biotheque.ulg.ac.be).



BruTuS

BruTuS is the nickname of Brugmann's Tumourbank Service. It is located in the Pathology Department of Brugmann Hospital in Jette (Brussels) and stores frozen tumoural tissue samples from Brugmann Hospital (Horta site) and HUDERF (Queen Fabiola Children's Hospital).

BruTuS was created in 2009 and receives residual tumour samples that were not necessary to establish the routine diagnosis by the Pathologists. Those samples are preserved in a -80°C deep freezer and, when possible, corresponding non tumoural tissue and paraffin embedded fragments are also kept. Those samples are then made available for researchers through the Belgian Virtual Tumourbank.

BruTuS is an academic oriented structure and is also a member of the Walloon biobanking platform (BioWin).

BruTuS has been issued a certificate of registration to ISO 9001 in 2011, as well as every other service in Brugmann Hospital's Pathology Department.

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Tumorbank@UZA

Tumorbank@UZA was established in 2009 as an integrated part of the Multidisciplinary Oncological Centre of Antwerp (MOCA). All oncological disciplines are represented in this centre and are organized in tumour clusters for patient-centered clinical care.

Tumorbank@UZA is located within the Pathology department which is ISO 15189:2007 accredited. The tumourbank works according to standard operating procedures (SOPs), based on international guidelines, for collection, processing and storage of high-quality fresh-frozen and fixed tissue and serum samples. Aliquots of central tumour tissue, tissue at the invasion front and corresponding normal tissue are stored at -80°C or -150°C. Clinical and non-clinical sample characteristics are managed using a customized sample management system (Slims, GenOhm) which assigns a unique identity number for each sample. In this way, samples can be de-identified for investigator-driven research projects.

- Cooperation with:
- Integrated Biobank of Luxembourg (IBBL)
 - European, Middle Eastern & African Society for Biopreservation and Biobanking (ESBB)
 - International Society for Biological and Environmental Repositories (ISBER)



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UCL Biological Library

The UCL Biological Library was created in 2007 thanks to the "Plan National Cancer". A team of two people collects and stores each year more than 450 well characterized specimens that complete the 3560 samples already stored in the Pathology Department since 1987. Nowadays, approximately 1900 frozen tissues have been collected following a standard procedure that ensures their high quality. Indeed, the surgical specimen reaches within a few minutes the pathology department, is analyzed by a pathologist and left-over tissue is rapidly stored at -80°C. Ideally, two samples of tumoural tissue and one sample of adjacent non-tumoural tissue are frozen. FFPE samples are also available. Anonymized clinical information can be provided for each specimen.

The UCL Biological Library works in accordance with the Ethics Committee rules and national laws. All samples are coded to protect individual privacy.

The purpose of the Biological Library is to foster research by providing high quality material and hence to help progress in the treatment of cancer.



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For additional information: <http://www.centreducancer.be>



The Bordet Tumour Bank (BTB)

The Bordet Tumour Bank (BTB) is Institut Jules Bordet's biorepository for human tumour specimens. It offers cancer researchers, both from academia and the private sector, a broad range of high quality tissue samples and corresponding data, collected by dedicated tumour bank staff who follow stringent standardised procedures and ethical guidelines, all complying with national legislation and international guidelines.

BTB contains samples collected over the past 12 years from more than 7000 patients with a diverse range of cancers. BTB coordinates the collection, storage, analysis, annotation, and distribution of both fresh-frozen and formalin-fixed, paraffin-embedded tumour and normal adjacent tissue and, more recently, peripheral blood.

BTB staff work in close collaboration with anatomico-pathologists, oncologists, surgeons, radiologists and other hospital personnel to obtain appropriate patient consent and to collect the samples along with comprehensive clinical information about them and their donors.

With the aim to improve the diagnosis, treatment, management and outcomes of cancer by providing coded, processed and annotated human tissue and data to cancer researchers, BTB supported 16 research projects in 2010 and 2011.



BTB received ISO-9001:2000 Quality Certification in 2012.

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IPG-BIOBANK

The IPG-Biobank was initiated by the Institute of Pathology and Genetics (IPG, Gosselies) and his partner hospitals. The Biobank is located at the Institute of Pathology and Genetics in modern purpose built facilities and is funded by the federal cancer plan. The institute is specialized in medical diagnosis related to anatomopathology, genetics, molecular biology and microbiology. More than 200 people (including 21 anatomopathologists and 9 geneticists) provide almost 300,000 specialized analyses every year, collaborating with more than 20 hospitals, in agreement with Belgian government prescriptions. The IPG has been accredited ISO 15189.

The IPG-Biobank is a large multi-center collection facilities, collecting tissues and blood from donors at 4 main hospitals in Wallonia. The Biobank provides a coordinated and integrated program that collects and distributes tissue samples to support cancer research in Belgium with the aim of delivering better clinical outcomes to people with cancer. The Biobank is also the home for a number of valuable serum, plasma, DNA and RNA samples collected from patients with a variety of cancer types.



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