

The nationwide virtual tumourbank project was launched 15 years ago by the Belgian Minister of Health, Ms. Laurette Onkelinx (initiative 27 of the Belgian Cancer Plan). The Belgian Virtual Tumourbank (BVT network) encompasses the tumour biobanks from eleven Belgian university hospitals (see Figure) that collect and store residual human tumour samples locally. In order to facilitate the search for tumour samples scattered among different Belgian institutions, data collected at sample level is made available for researchers via the online BVT catalogue (BVTc) application. A high quality of the data on the tumour samples requested by scientists for research in oncology is guaranteed by automatic and manual controls performed by the BVT project team at the Belgian Cancer Registry.



Within this BVT newsletter, the main aspects of each of the eleven biobank partners are summarized in order to inform researchers interested in samples from the oncology collections.

**Most collected sample localisations:**

Breast, brain and colon cancer

**Other material type mostly collected beside residual tumour tissue:**

Whole blood

Upon request for research purpose, we also agree to try to collect, prospectively, other dedicated tumour material.

**Other available collections besides oncology:**

DNA samples extracted from blood

**Who can request samples at your biobank?**

No restrictions as long as it is for scientific research and the project is approved by an ethical committee


**Tip(s) for the researcher:**


- Description of the requested samples types and description of the research project (including the methods that will be used).
- Ethical committee approval.

**Aspects that can be highlighted:**

- The IPG-Biobank is a multi-center collection facility, collecting tissues and blood from donors from different hospitals in Wallonia.
- The Biobank is located at the Institute of Pathology and Genetics. Sometimes, the requested material (tumour or other disease) is present in the IPG pathology laboratory archive collection. These samples could be incorporated in the biobank prospectively, if the ethical and legal requirements are met (patient consent, ...).

**Contact information**

 <http://www.ipg.be/biobanque/>

 [biobanque@ipg.be](mailto:biobanque@ipg.be)

**Most collected sample localisations:**

Breast, kidney, lung, liver, intestines, brain, prostate, lymph nodes, soft tissue and pancreas

**Other material type mostly collected beside residual tumour tissue:**

Plasma (PRP, PPP, PFP), serum, platelets, whole blood, FFPE, PBMCs, cerebrospinal fluid, stool, saliva, urine, tooth, semen, DNA, RNA, cell lines, tear drops, cultivation drops, ....

**Other available collections besides oncology:**

A wide range of collections

**Who can request samples at your biobank?**

Non-profit, academia, industry


**Tip(s) for the researcher:**

- Start requesting samples in a timely manner, be very specific in the request and first informally check with the biobank whether the samples are available.
- Be sure to request a budget for biobanking in funding applications.

**Aspects that can be highlighted:**

- Liquid biopsy collection

**Contact information**

 [biobank@uzgent.be](mailto:biobank@uzgent.be)

**Most collected sample localisations:**

Breast, colorectal, soft tissues, liver, lung, head and neck, female genital organs, kidney, lymphoma. We collect primary tumours, metastasis and relapse. All tissues allowing a longitudinal follow-up study.

**Other material type mostly collected beside residual tumour tissue:**

Normal tissue, blood, plasma, ctDNA. All material that could contribute to multi-omics, morphological spatial and temporal evolution of tumour and normal tissues and their microenvironment.

**Other available collections besides oncology:**

We can collect prospectively any healthy left over tissue from a surgery, tissue that in other conditions is difficult to access...

**Who can request samples at your biobank?**

All researchers for all good projects but with the priority to non-profit/ academia.

**Tip(s) for the researcher:**

- You can find in our biobank everything that you need!
- We can build your research projects, together, with expert pathologists, surgeons, clinicians, researchers, technicians, working in the hospital....

**Aspects that can be highlighted:**

- Certified biobank, since 2012
- Gold sample quality
- Good collaboration
- Scientific support

Contact information



<https://www.bordet.be/en/tumour-bank>



[tumorotheque@bordet.be](mailto:tumorotheque@bordet.be)  
[ligia.craciun@hubruxelles.be](mailto:ligia.craciun@hubruxelles.be)

**Most collected sample localisations:**

The samples we collect depend on the surgeries performed at the hospital. Most of the tumours we collect are derived from the breast and the digestive system, although we also have many different samples from other localisations in our biobank.

**Other material type mostly collected beside residual tumour tissue:**

Corresponding normal tissue, whole blood and blood plasma from the same patient

**Other available collections besides oncology:**

The Tumorbank UZ Brussel is part of the Central Biobank UZ Brussel/VUB. The Central Biobank collects various material including urine, DNA, RNA, plasma, saliva, serum, peripheral blood cells, tissue,... In addition, the CRC Brussel Diabetes Biobank is also part of the Central Biobank. The CRC Brussel Diabetes Biobank collects similar material to the Central Biobank but focusses on patients with diabetes.

**Who can request samples at your biobank?**

All researchers

**Tip(s) for the researcher:**

- Use the BVT-catalogue to look for samples you need. It is easier compared to contacting every biobank individually.
- If you don't find what you are looking for, please don't hesitate to contact us and ask!

**Aspects that can be highlighted:**

- Next to the residual tumour tissue we collect, we also have access to the full pathology archive from which slides can be requested.

Contact information



[tumorbank@uzbrussel.be](mailto:tumorbank@uzbrussel.be)

**Most collected sample localisations:**

Hematological malignancies (leukemia, lymphoma, etc.): blood, bone marrow, lymph node. Colorectal cancer, lung cancer and others (head and neck cancer, kidney cancer, etc.)

**Other material type mostly collected beside residual tumour tissue:**

Liquid biopsies (eg CtDNA), body cavity fluids, adjacent healthy tissue

**Other available collections besides oncology:**

Inflammatory Bowel Disease samples and lung explants

**Who can request samples at your biobank?**

All researchers (industry and academia)

**Tip(s) for the researcher:**

- Ascertain the preanalytical needs demanded by the project specificities to ensure fit-for-purpose samples (type of support, handling particularity, time-to-processing, freezing mode, etc.).
- Provide the utmost specificity in your request (mutational landscape, disease stage, etc.).
- Keep in view the required ethical approval and associated delay
- Anticipate the biobanking-related budget in the fund applications.
- Don't hesitate to (in)formally contact us!

**Aspects that can be highlighted:**

- ISO 9001 (2017)
- Clinical expertise on site
- Set-up of prospective collections
- Collaboration-driven
- Scientific support (research laboratory)
- Flexibility and adaptation

Contact information



<https://www.chuclnamur.be/recherche-et-enseignement/recherche-biomedicale/>



[Fabienne.george@chuclnamur.uclouvain.be](mailto:Fabienne.george@chuclnamur.uclouvain.be)

**Most collected sample localisations:**

Colorectal, breast, brain and lung cancer

**Other material type mostly collected beside residual tumour tissue:**

Prospective blood collections for specific projects

**Other available collections besides oncology:**

Different collections in diverse topics as inflammatory bowel disease, follow-up of bone marrow grafted patients in context of hematopathology's, asthma, ...

**Who can request samples at your biobank?**

Everybody is welcome


**Tip(s) for the researcher:**


- Prepare your request of human samples by thinking of the type of samples, the compatibility with technologies and material to use, the number of sample to have statistically representative results, the data required to characterize samples,...
- The more precise and complete the request is, the more precise the response from the biobank will be and we will all save time.

**Aspects that can be highlighted:**

- In our university hospital a lot of surgeons and doctors are also implied in research projects and understand research needs so they generally agree to help biobanks and researchers to find the right samples at the right moment.
- BHUL is a dynamic team that has different thematic subunits with multiple expertises and knowledge that we agree to share.

**Contact information**

 [www.gigabiotheque.uliege.be](http://www.gigabiotheque.uliege.be)

 [stephanie.gofflot@chuliege.be](mailto:stephanie.gofflot@chuliege.be)

**Most collected sample localisations:**

Breast and colorectal cancer

**Other material type mostly collected beside residual tumour tissue:**

Residual associated normal tissue

**Other available collections besides oncology:**

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**Who can request samples at your biobank?**

Anyone, but non-profit and academic researchers get samples for free

**Tip(s) for the researcher:**


- Be thorough when specifying what kind of samples you need in order to make our query more efficient
- Please be patient, it's a time consuming process, but it works!

**Aspects that can be highlighted:**

- We collect residual tumour tissue from the Children's Hospital HUDERF-UKZKF, which means we have some rare paediatric samples in our collection.

**Contact information**

 <https://www.chu-brugmann.be/fr/med/anapath/tumor.asp>

 [maxime.lorent@chu-brugmann.be](mailto:maxime.lorent@chu-brugmann.be)

**Most collected sample localisations:**

Mostly carcinomas from epithelial origin

**Other material type mostly collected beside residual tumour tissue:**

Blood samples inclusive all derivatives, bone marrow aspirate, cerebrospinal fluid, the healthy surrounding tissue

**Other available collections besides oncology:**

Yes: diverse tissue types collected by different research domains

**Who can request samples at your biobank?**

Priority to the academic institutions

**Tip(s) for the researcher:**

- Researchers must submit a scientific research proposal.
- The provision of human body material (HBM) requires collaboration with a Principal Investigator (PI) from UZ/KU Leuven.
- If you do not have any contact within UZ/KU Leuven, we can refer your request to the relevant researchers/ research departments

**Aspects that can be highlighted:**

- Our biobank is a study-based biobank.
- Every single human body material (HBM) can be traced using the S-number of the project.

**Contact information**

 <https://www.uzleuven.be/nl/biobank>

 [wbb@uzleuven.be](mailto:wbb@uzleuven.be)

**Most collected sample localisations:**

All tumour types are being collected. There are large tissue collections related to lung-, digestive organs, and NET tumours available together with pre-operative blood samples

**Other material type mostly collected beside residual tumour tissue:**

In the framework of oncological samples, also blood is being collected. As the centre of medical genetics serves as a decentral hub of our biobank, this allows to link to DNA and whole exome sequencing data.

**Other available collections besides oncology:**

All sample types are being collected. There is no limit on disease type.

**Who can request samples at your biobank?**

Although most of our samples are used by internal researchers, the biobank is open to any request, both from academic and commercial institutions.

**Tip(s) for the researcher:**

- Sample quality is key to generate optimal research results.
- Capturing pre-analytical sample processing parameters allows the biobank to provide fit for purpose samples.
- Researchers have to consider their analyses and need to detail their sample requests according to these needs.

**Aspects that can be highlighted:**

- Currently, we are setting up “tumourbank 2.0” in which we aim not only to collect tissue samples, but also pre- and post-operative blood, as well as urine and longitudinal blood samples. These will be linked to disease stages as well as diagnostic and molecular information.
- Bringing all these samples and data together in a single system will provide an optimised resource for both internal and external researchers.

**Contact information**

 <https://www.uza.be/biobankantwerpen>

 biobankantwerpen@uza.be

**Most collected sample localisations:**

Tumour samples cover a wide variety of tumours and more particularly from brain, gastrointestinal tract and endocrine systems but all localisations are part of our biobank.

**Other material type mostly collected beside residual tumour tissue:**

We have developed a generalized type of biobank including normal, inflammation and tumour samples but also specific biobanking (i.e. tissues from grafted patients, tissues from covid19 deceased patients)

**Other available collections besides oncology:**

Inflammatory diseases, covid19...

**Who can request samples at your biobank?**

Any institution may request samples. Each sample request is assessed by the Scientific Council and submitted to the Ethics Committee.


**Tip(s) for the researcher:**


- Possibility of developing prospective collections
- Specific tissue microarray.
- Possibility of associated services: immunohistochemistry, quantification, etc.

**Aspects that can be highlighted:**

- Clinical associated data,
- Sample’s characterization by using molecular (NGS) and protein techniques,
- Complete genomic signature, customized specific tissue microarray

**Contact information**

 [www.hopitalerasme.be](http://www.hopitalerasme.be)

 flavienne.sandras@hubruxelles.be

**Most collected sample localisations:**

Breast, lung, head and neck, central nervous system, node, digestive organs, soft tissue

**Other material type mostly collected beside residual tumour tissue:**

Normal tissue, bone marrow, umbilical cord blood

**Other available collections besides oncology:**

Normal tissues and cells

**Who can request samples at your biobank?**

Academia and industry


**Tip(s) for the researcher:**

<https://www.saintluc.be/fr/node/2592>

**Aspects that can be highlighted:**

<https://www.saintluc.be/fr/node/2592>

**Contact information**

 <https://www.saintluc.be/fr/node/2592>

 biobanque@saintluc.uclouvain.be

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 Do you wish not to receive our information any longer?  
 Send an email to [biobank@kankerregister.org](mailto:biobank@kankerregister.org)  
 Belgian Cancer Registry | Brussels | [www.kankerregister.org](http://www.kankerregister.org)