



**Héma
Québec**

BLOOD and PLASMA
MOTHER'S MILK
STEM CELLS
HUMAN TISSUES

2024–2025 Corporate Presentation

Mathieux and Marie Noëlle
EMPLOYEES

The blood and biological products of human origin system in Québec

Mission

To efficiently meet the needs of the Québec population for quality blood and other biological products of human origin.

Vision

To become a strategic partner for the Québec health system.

Health Canada

Donors

Ministère
de la Santé
et des
Services
sociaux



Hospitals

Recipients

Biovigilance
Committee

2024-2025
AT A GLANCE

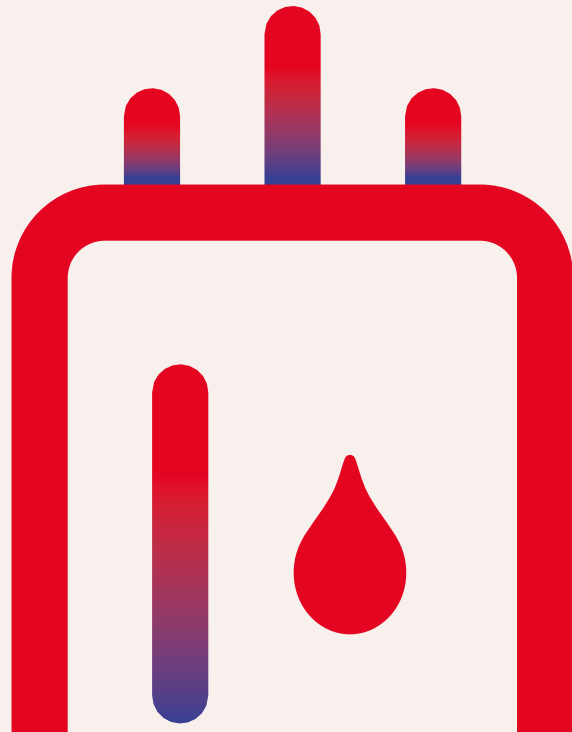
Over
238,000

donors of whole blood, platelets, plasma, stem cells, cord blood, human tissues, and mother's milk registered donors

Nearly
800,000 **1,998**
products distributed employees

\$586 million
annual revenues

Thousands of volunteers, committed partners and rigorous board members, who are mobilized for the gift of life.



A great team dedicated
to the gift of life.

From blood supplier to expert in biological products of human origin

1998

Start of Héma-Québec's operations as a supplier of blood products and plasma-derived drug products

2001

Creation of the Human Tissue Bank
Opening of the first blood donation centre

2004

Creation of the Public Cord Blood Bank

2005

Operational start-up of the first mobile blood donation unit

2008

Creation of the Reference and Stem Cell Laboratory

2013

Extension of Héma-Québec's mandate for biological products of human origin

2014

Opening of the first plasma donation centre

Héma-Québec assumes full management of the Stem Cell Donor Registry in Québec

2014

Creation of the Québec Public Mothers' Milk Bank

2018

Obtaining the mandate for the evolution of the information system on the traceability of blood products

2024

Start of mandate as sole distributor of human tissues

Branding consolidation under the name Héma-Québec





Permanent presence throughout Québec



Donation centres

Brossard		Drummondville		Gatineau	
Kirkland		Laval		Lebourgneuf	
Montréal		Saguenay		Saint-Bruno	
Sainte-Foy		Sherbrooke		Trois-Rivières	

Facilities

Montréal	Québec
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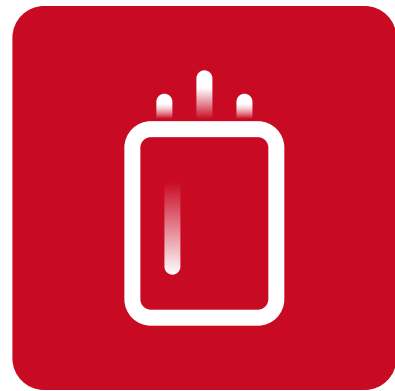
Mobile blood drive regional centre

Brossard

In addition to a mobile unit and thousands of mobile blood drives across the province!

- Blood donation
- Plasma donation
- Platelets donation
- Mother's milk drop-off point

Sectors of activity



Blood

Blood is the fluid that flows through the body's veins and arteries. It is made up of plasma, in which three types of cells are suspended: red blood cells, white blood cells and platelets.



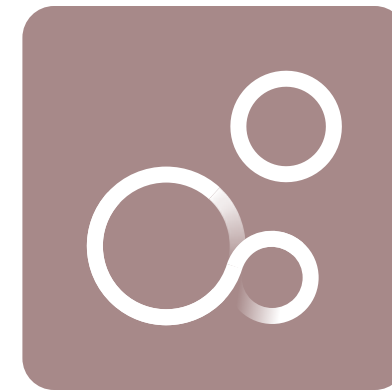
Plasma

Liquid part of blood, plasma carries blood cells and nutrients in the body. It is used to manufacture medications, known as stable products.



Mother's milk

Collected mother's milk is particularly beneficial for infants born extremely preterm who cannot be breastfed by their mother. It reduces the risk of developing a serious intestinal disease.



Stem cells

Stem cells, found in bone marrow, peripheral circulating blood and umbilical cord blood, are the "parent" cells from which all other blood cells develop.



Human tissues

Human tissues – e.g., ocular tissues, heart valves, skin tissues, arterial tissues and musculoskeletal tissues – can be collected for transplantation purposes.

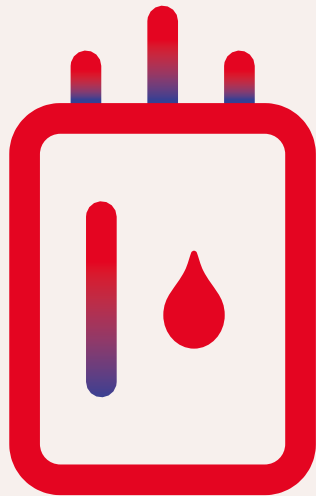


Laboratories

Héma-Québec provides specialized laboratory services to its Québec healthcare system partners. In this role, it is recognized as a referral centre in the field of transfusion medicine.

As the exclusive supplier of blood products in Québec, Héma-Québec is responsible for recruiting donors and for collecting, testing, processing and delivering products to hospitals.

Blood



2024–2025
AT A GLANCE

177,047
registered donors
(whole blood, platelets and plasma)

309,113
blood products delivered

1,981
blood drives

435,173
visits to collection sites
(all types of donations
combined)

1.62
whole blood donations
on average per donor
per year

Blood products

From donation to distribution



1. DONATION

The blood collection lasts about ten minutes. In addition to the blood bag, sample tubes are collected for testing.

2. TRANSPORTATION

The blood bags and samples are sent to one of Héma-Québec’s laboratories.

3. ANALYSES

The samples are sent to a qualification lab to determine the donor’s blood group and to screen for the presence of infections.

4. SEPARATION OF BLOOD

The blood is separated into its different components (red blood cells, platelets, plasma).

5. STORAGE

Compliant products are labelled and stored, ready to be sent to hospitals.

6. DELIVERY

The products are delivered to hospitals. The components used vary depending on patients’ needs.

Every 80 seconds, someone in Québec needs blood.

It may be following an accident, during a surgery or to treat an illness.

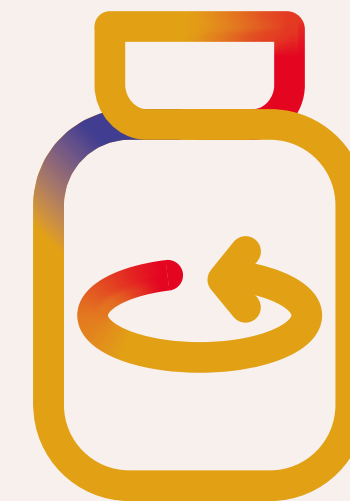


Sandra and Guillaume

PLASMA DONORS

Héma-Québec is the exclusive distributor of stable products for Québec. It is responsible for supply strategies, purchase of medications manufactured primarily from plasma, inventory management and product distribution to hospitals. It also looks after donor recruitment, collection and testing, and sending a part of the plasma it collects for fractionation.

Plasma



2024–2025
AT A GLANCE

30,312
registered plasma donors

171,053
litres of plasma supplied
for the manufacture of
medications

449,742
stable products delivered

28.3%
intravenous (IVIg)
and subcutaneous
(SCIg) immunoglobulin
self-sufficiency rate

Stable products

From donation to distribution



1. DONATION

Plasma donations are collected in donation centres by appointment. The collection lasts approximately 45 minutes. Plasma can be donated every six days, up to 52 times a year.

2. FREEZING

Plasma is quickly frozen after collection. The faster it is frozen, the more protein can be extracted from it.

3. ANALYSES

Samples are sent to the qualification laboratory. All donations are tested.

4. FRACTIONATION

Plasma is sent to fractionation plants. These high-tech plants extract the proteins and use them to manufacture medications.

5. RETURN OF PRODUCTS

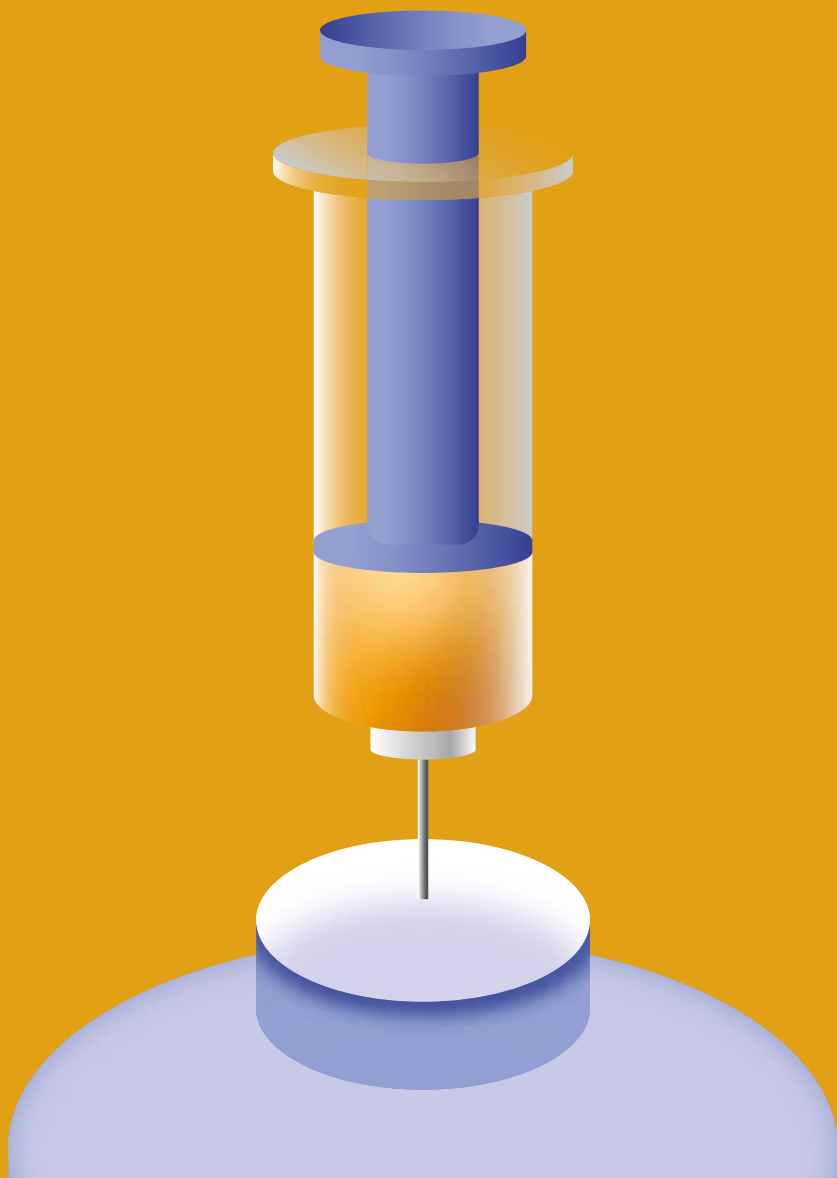
The finished products are then returned to Héma-Québec and stored, ready for shipment to hospitals.

6. DELIVERY

The products are delivered to hospitals.

Thousands of people in Québec need plasma-derived medications.

They are used to treat various illnesses, including neurological disorders, immune deficiencies and other diseases, such as hemophilia. The drug manufacturing process can take up to 12 months.



Laury

MOTHER'S MILK DONOR

Héma-Québec operates the Public Mothers' Milk Bank for Québec. Its mandate is to provide pasteurized human milk to infants born preterm at 32 weeks' gestation or earlier who require medical care and whose mother cannot breastfeed. The organization is responsible for donor recruitment and qualification, processing and analysis of milk, as well as its distribution to hospitals.

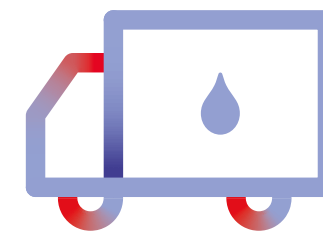
Mother's milk



2024–2025
AT A GLANCE

818
registered donors

19,093
bottles distributed



In the municipalities of the metropolitan communities of Montréal and Québec City, the bottles of milk are collected at donors' homes. In other regions, the bottles can be brought to one of the drop-off points.

Around a third of mothers who give birth prematurely have difficulty producing enough milk to feed their baby.

Mother's milk

From donation to distribution



1. DONATION

Héma-Québec supplies bottles; mothers collect their milk at home and freeze it.

2. PICK-UP OR DROP-OFF

Depending on the region, the bottles of milk are collected at the donor's home or brought by the donor to a drop-off point.

3. POOLING OF DONATIONS

Héma-Québec mixes the donations of several donors by lot.

4. PASTEURIZATION

The milk is pasteurized to eliminate viruses and bacteria.

5. MICROBIOLOGICAL ANALYSES AND STORAGE

Héma-Québec tests the milk to ensure that it is safe for recipients. If the results are compliant, the milk is frozen and stored for one year from the date of the first donation.

6. DELIVERY

The milk is distributed to hospitals and destined for extremely preterm babies who cannot be breastfed by their mother.

Mother's milk saves lives.

Each year in Québec, some 1,000 very premature babies whose mother cannot breastfeed benefit from milk donated to Héma-Québec's Public Mothers' Milk Bank.

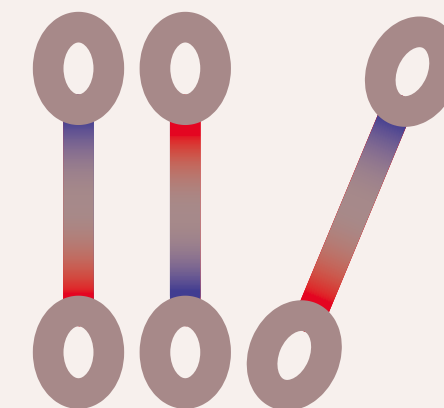
Penny

STEM CELL RECIPIENT

Héma-Québec is responsible for recruiting and qualifying donors, as well as managing the Stem Cell Donor Registry for Québec. This computerized registry contains the records of close to 57,000 enrolled individuals who are likely to consent to donating, if found compatible with a patient.

Stem cells

2024–2025
AT A GLANCE



56,986
enrolled individuals to the
Stem Cell Donor Registry*

7,192
new web registrations

98
patients in Québec
received an unrelated
donor transplant

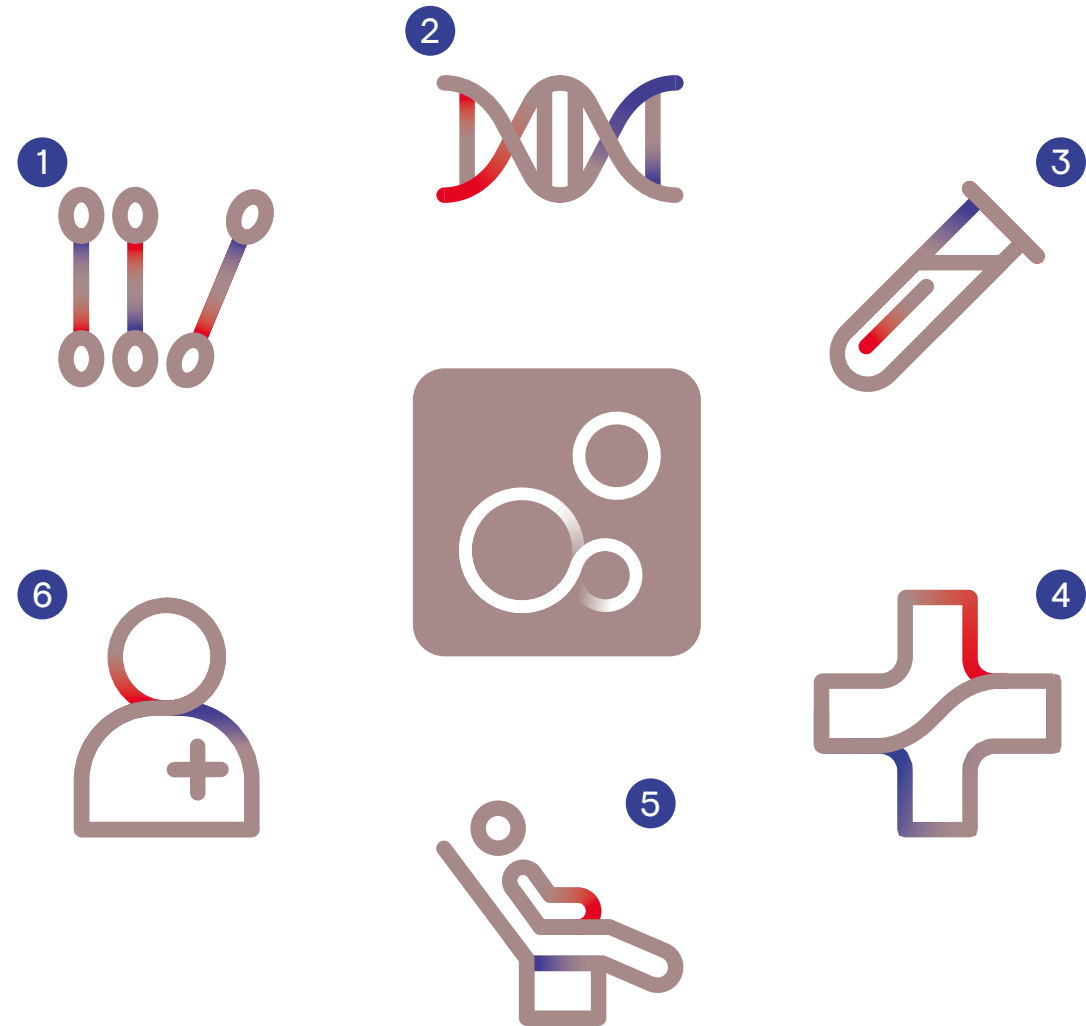
14
donors in Québec
donated stem cells

465
autologous peripheral
stem cells distributed
to hospitals

* Héma-Québec's Registry is part of the World Marrow Donor Association's (WMDA) global network, thus benefitting from access to more than 40 million potential stem cell donors.

Stem cells

From registration to donation



1. REGISTRATION

Any person who qualifies can enroll in the Registry.

2. DETERMINATION OF GENETIC PROFILE AND ADDITION TO THE REGISTRY

Samples returned to Héma-Québec are used to determine the genetic profile of the potential donor, who is then added to the international registry.

3. CONFIRMATION OF COMPATIBILITY

If a person is potentially compatible with a patient, Héma-Québec conducts advanced tests to confirm their genetic compatibility with the patient.

4. PREPARING FOR THE DONATION

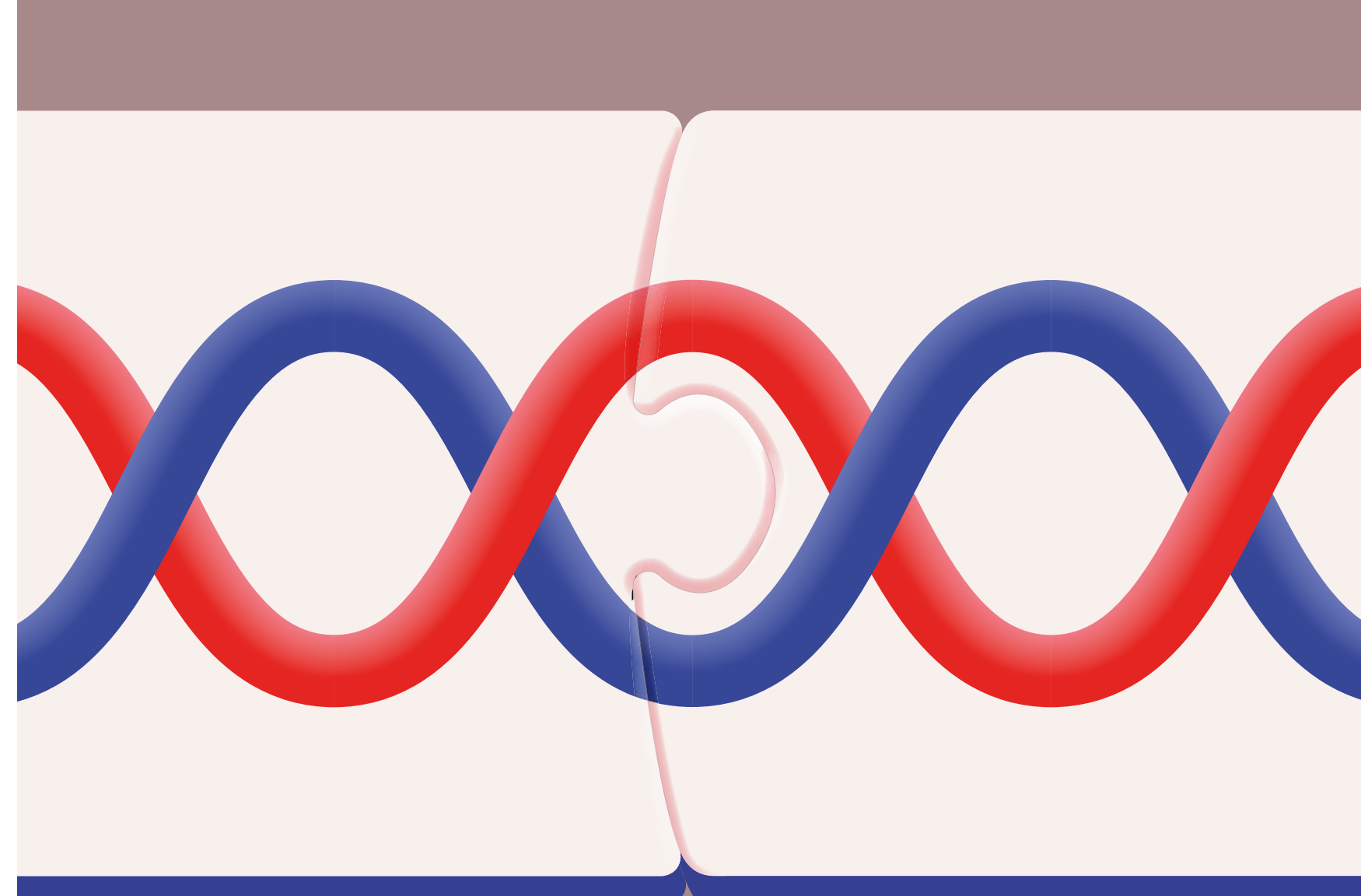
The potential donor undergoes a general physical examination to confirm whether their health status allows them to donate.

5. DONATION

If all conditions are met, the donation can take place. Two types of donations are possible: bone marrow or peripheral stem cells.

6. POST-DONATION FOLLOW-UP

The donor is followed up until full recovery.

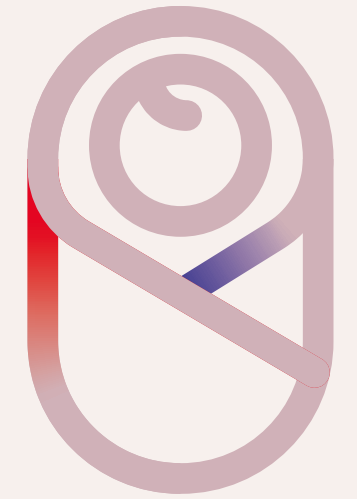


For some patients, stem cell transplant is the only chance of survival.

The treatment of last resort consists of replacing the patient's stem cells with those of a healthy person. For three out of four of them, there is no compatible donor in the family.

Héma-Québec operates the Public Cord Blood Bank for Québec. While Héma-Québec oversees donor registration and qualification, the actual collection is performed by partner hospitals. Once the samples are received, Héma-Québec assumes responsibility for processing, analysis and cryopreservation or banking of the cord blood units.

Cord blood



2024-2025
AT A GLANCE

2,598
mothers enrolled

12,399
units available
for transplant

6
partner hospitals

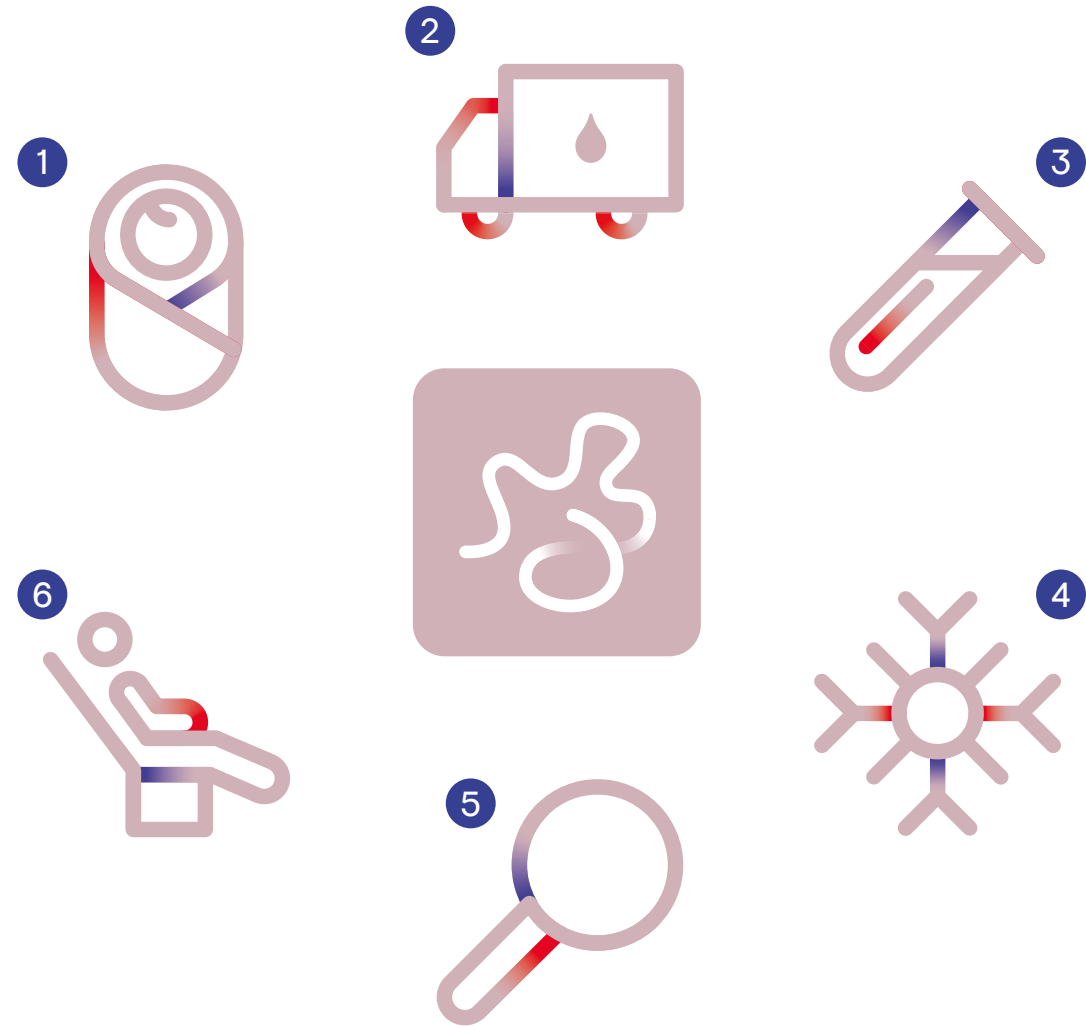
16
units distributed
worldwide in 2024-2025,
including 3 in Québec

234
units distributed
worldwide since 2008

The Public Cord Blood Bank is also an integral part of the World Marrow Donor Association's (WMDA) global network, as is Héma-Québec's adult donor registry.

Cord blood

From donation to transplantation



1. DONATION

Umbilical cord blood is collected after the birth of a baby in partner hospitals.

2. TRANSPORTATION

Cord is transported to Héma-Québec.

3. QUALIFICATION

Cord blood is qualified based on strict criteria.

4. PROCESSING AND STORAGE

Cord blood is processed, frozen at -150°C and stored for 15 years. The units of cord blood are made available to an international registry.

5. SEARCH FOR COMPATIBLE UNITS

When a call is received within Québec or elsewhere in the world, Héma-Québec conducts a search for a unit that is compatible with a patient awaiting a stem cell transplant.

6. TRANSPLANTATION

The patient is transplanted.

The Public Cord Blood Bank provides access to a complementary source of stem cells, other than those from bone marrow or peripheral blood. Cord blood is rich in stem cells that can play a vital role in the treatment of over 80 diseases.

Marie

HUMAN TISSUE RECIPIENT

Héma-Québec operates the Public Human Tissue Bank for Québec. It is responsible for collecting, processing, qualifying and distributing human tissues to meet hospital needs. One of the team’s missions is to raise awareness among healthcare professionals of the importance of identifying and referring potential donors following their death.

Human tissues



2024–2025
AT A GLANCE

5,772
donor referrals
received

1,037
tissue donors

SOLE DISTRIBUTOR MANDATE

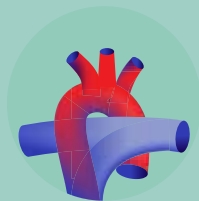
Since December 2, 2024, Héma-Québec has assumed responsibility for the entire human tissue supply of Québec hospitals, **with more than 1,000 products in the catalog** (versus 100 before the sole distributor mandate came into effect).

7,694
tissues distributed
to hospitals
(up 42.5% from 2023–2024, as a result of the sole distributor mandate effective December 2024)

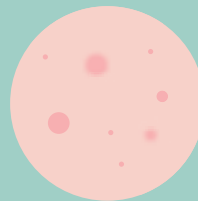
Human tissues collected by Héma-Québec



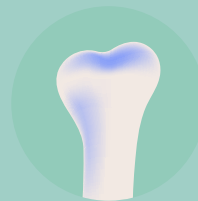
Eye tissues
(cornea and others)



Heart valves and arterial
tissues (abdominal aortas
and femoral arteries)



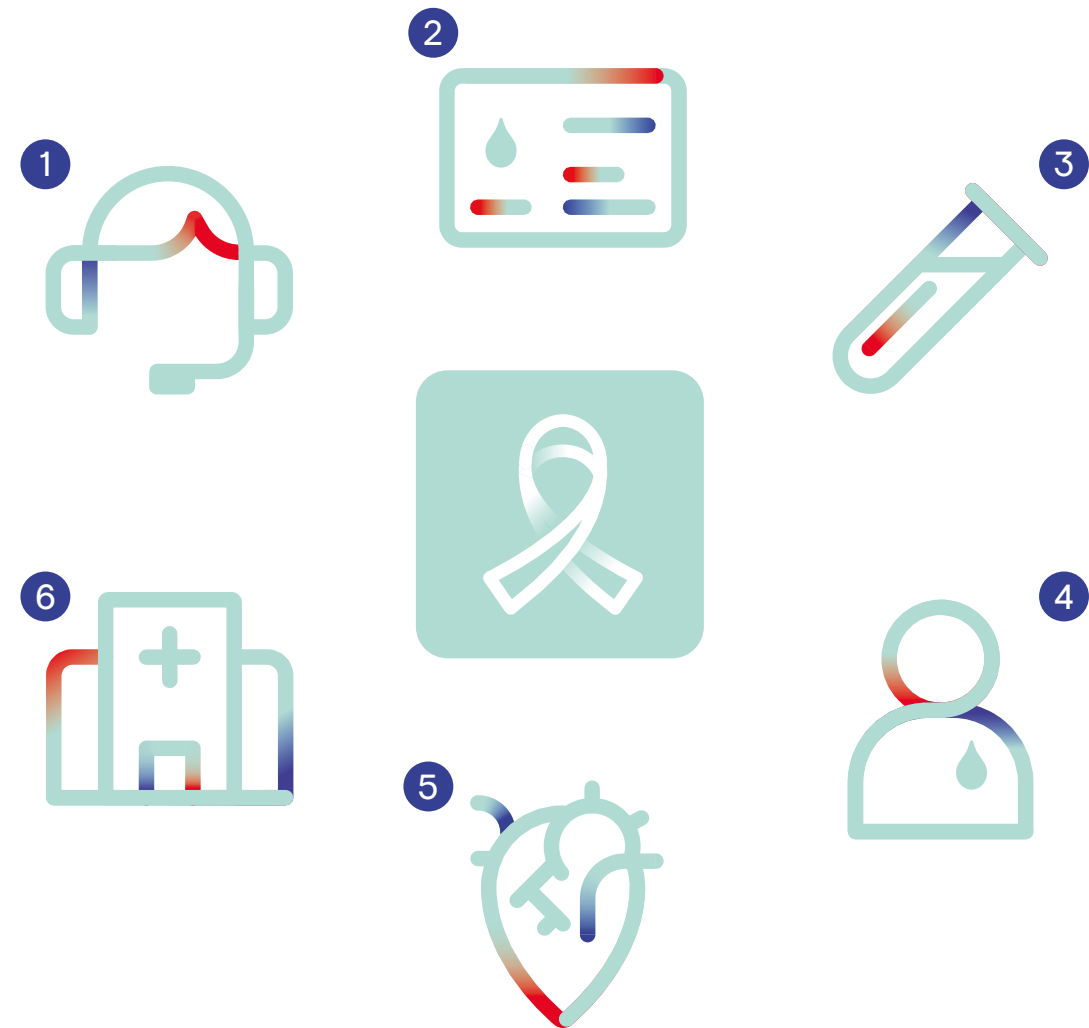
Cutaneous
tissues (skin)



Musculoskeletal
tissues
(tendons and bones)

Human tissues

From donor referrals to transplantation



1. DONOR REFERRAL

Health professionals refer donors to Héma-Québec.

2. CONSENT

Consent registries are checked. It is important for the donor to share their decision to consent to donating tissue with family members, since they are the ones who speak on behalf of the donor after death.

3. QUALIFICATION

Héma-Québec conducts a thorough evaluation to verify the donor's eligibility.

4. COLLECTION

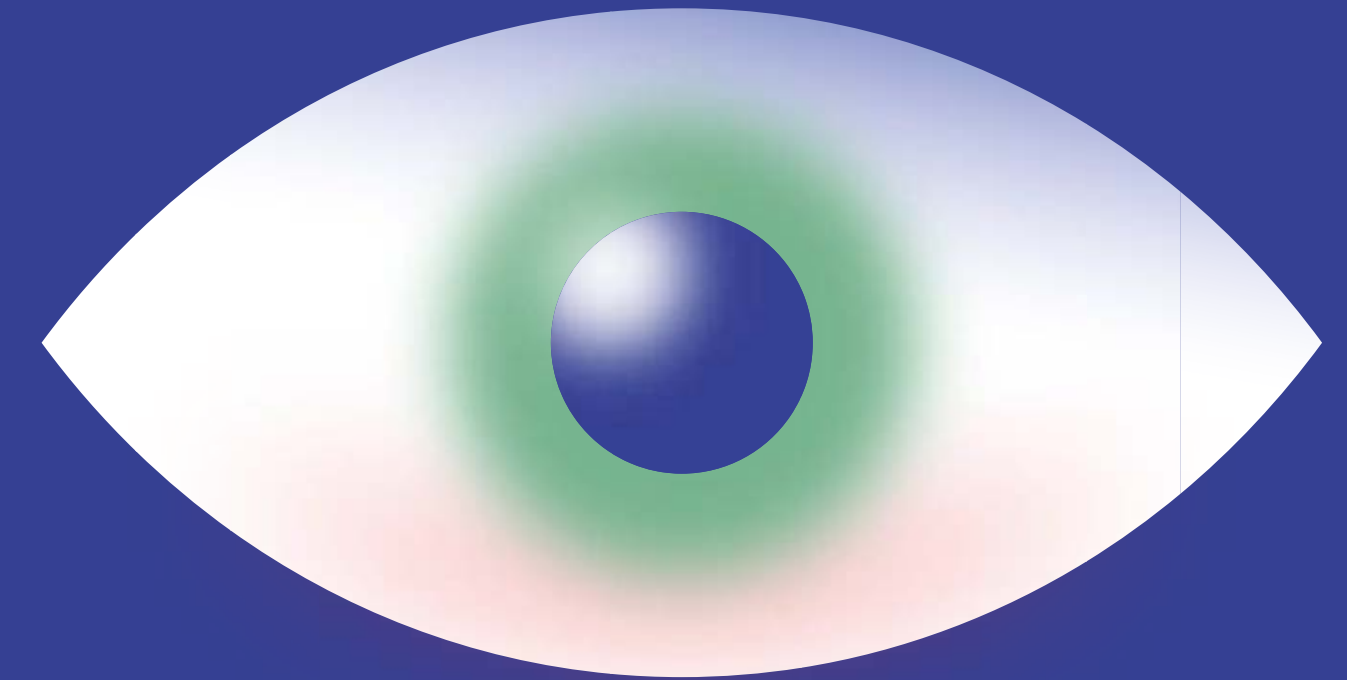
Héma-Québec collects the tissues.

5. PROCESSING AND STORAGE

The tissues are processed and stored until they are transplanted. Most tissues can be preserved for up to five years, with the exception of corneas, which can be preserved only 14 days.

6. TRANSPLANTATION

The surgeon transplants the tissues.



One tissue donor can help up to 20 people.

For example, to restore sight with a corneal transplant or to treat serious burns using skin grafts.



Héma-Québec’s laboratories perform specialized analyses, including complex antibody investigations, extended phenotyping, detailed analyses of erythrocyte and platelet blood groups, and HLA genotyping. These analyses are conducted, among others, to identify compatible donors for stem cell transplants.

Specialized laboratory services



2024–2025
AT A GLANCE

33,571
tests conducted
for Québec hospitals

5,638
patient requests referred
to the reference
laboratories

26,355
phenotyped packed red
blood cells delivered to
Québec hospitals

Analyses also serve to identify and address specific transfusion medicine issues, and to fulfill hospital needs for specialized products such as phenotyped packed red blood cells, rare blood or typed platelets.

Specialized laboratory services

From request to specialized products and services



1. REQUESTS AND SAMPLES

Health professionals send requests for testing and samples to the reference laboratories.

2. ANALYSES

Based on the type of request received, various tests may be performed, including identifying irregular antibodies, phenotyping, genotyping, and HLA typing.

3. REPORT

Once the tests are completed, the results are sent to the health professional who initiated the request.

4. SPECIALIZED PRODUCTS AND SERVICES

Based on the results, the health professional contacts Héma-Québec to find an adult donor or cord blood units for stem cell transplantation, or to provide specialized products, such as phenotyped packed red blood cells, washed blood, rare blood or typed platelets.

Héma-Québec's laboratories provide the solutions and technical expertise that the healthcare system needs to ensure the safety and well-being of the people it treats.

Innovation

STRATEGIC PARTNERSHIPS SERVING THE HEALTH CARE SYSTEM

**Héma-Québec's involvement
in many partnerships and
studies really helps make it
a strategic partner in Québec's
healthcare system.**

New method for screening CD36 expression on the surface of HLA-typed platelets

Héma-Québec's reference laboratories sometimes face urgent situations. For example, a patient may have an urgent need for particularly rare platelets for which there are no specific characterization tests.

Such an emergency arose in 2024 and required the rapid development of a new method. More specifically, our teams designed a screening method based on flow cytometry to identify donors.

A new analytical approach sheds light on the epidemiology of COVID-19 in Québec

In 2023, Héma-Québec developed an analytical approach ("ratio approach") to better detect anti-SARS-CoV-2 antibodies in vaccinated individuals. Two projects carried out in 2024 used this approach.

The first project evaluated the sensitivity of four immunological tests using the ratio approach and the "conventional" approach. Ultimately, the ratio approach significantly improved the sensitivity of the tests.

The results of the second project—conducted in collaboration with the ministère de la Santé et des Services sociaux and the Institut national de santé publique du Québec—suggest that nearly 90% of the population of Québec contracted SARS-CoV-2 during the Omicron wave. These results illustrate Héma-Québec's ability to assist public health authorities in times of crisis.

Analysis of the risk of tuberculosis transmission through tissue transplantation

Always on the lookout for risks to recipients, Héma-Québec has analyzed the risk of tuberculosis transmission through tissue transplantation. This risk was recently highlighted by two tuberculosis outbreaks in the United States, both caused by contaminated bone grafts.

Ultimately, the analysis revealed that the risk to transplant recipients in Québec is negligible, particularly because the musculoskeletal tissues prepared by Héma-Québec are irradiated and therefore do not contain living cells.

Innovation

MAIN RESEARCH AND DEVELOPMENT AREAS

Héma-Québec also promotes innovation and continuous improvement through its various activities.

Operational support

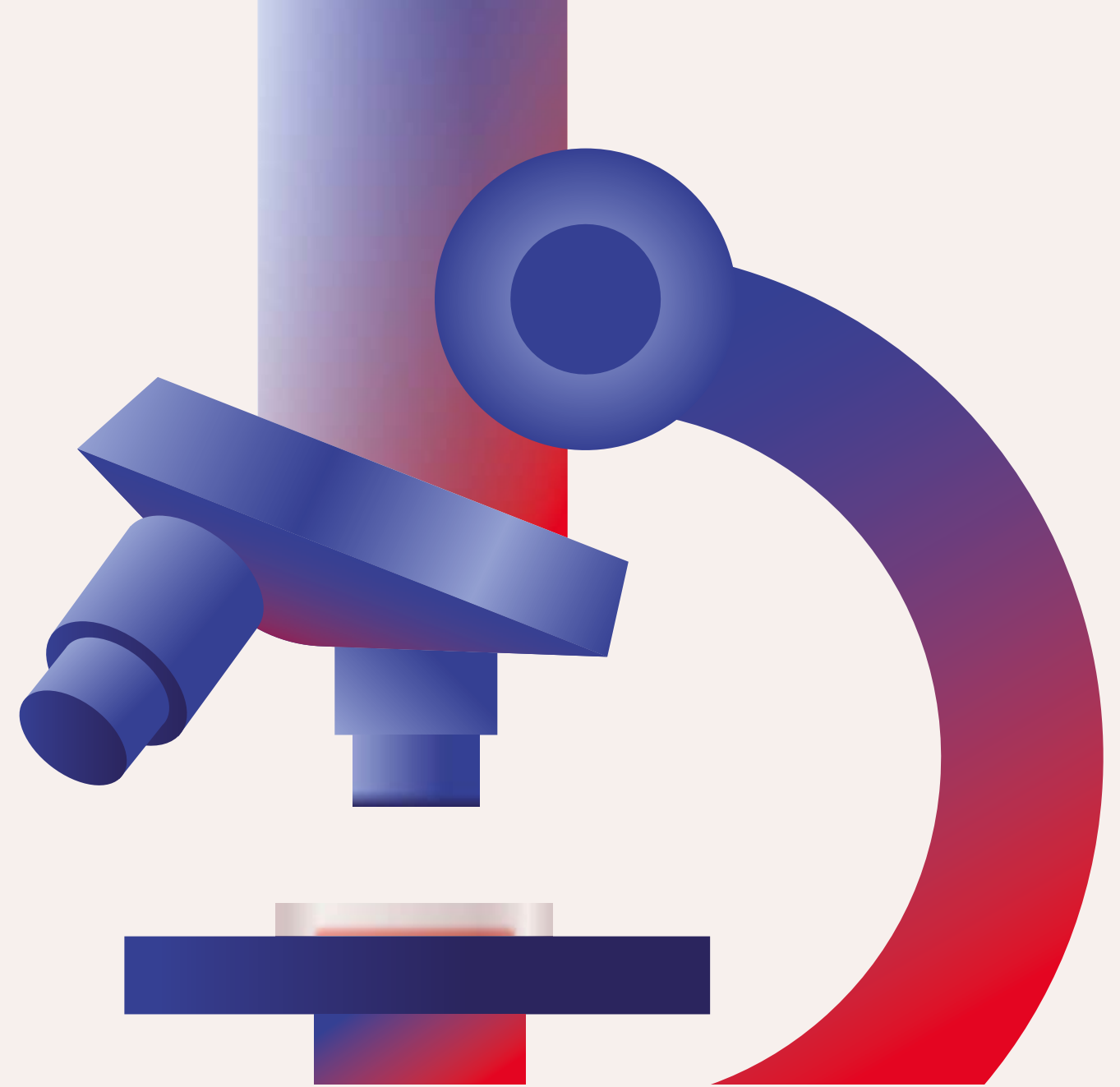
- Evaluation of new technologies
- Improvements in operational methods and processes
- Qualification testing of biological products

Research and development

- New product development
- Basic research
- Epidemiological research
- Research on trends in the use of human-derived biological products

Use of research results

- Outreach through communications



The knowledge developed by Héma-Québec's teams of physicians, statisticians, epidemiologists and researchers is shared with the medical and scientific community, and helps promote its expertise in the life sciences field.

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hemaquebec.ca



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Québec**

BLOOD and PLASMA
MOTHER'S MILK
STEM CELLS
HUMAN TISSUES

Here for life.