

**2022 CORPORATE PRESENTATION** 

# **MISSION**

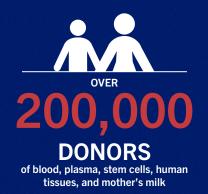
To efficiently meet the needs of the Québec population for quality blood and other biological products of human origin.

# VISION

To become a strategic partner for the Québec health system.



# A GREAT TEAM DEDICATED TO THE GIFT OF LIFE











Their commitment enables Héma-Québec to provide hospitals with **nearly 800,000 products** every year and support professionals in the health care system by providing specialized, innovative services.



# SECTORS OF ACTIVITY



# **BLOOD PRODUCTS**

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. Every 80 seconds, someone in Québec needs blood. It may be following an accident, during surgery, or to treat an illness.



# **STABLE PRODUCTS**

Stable products are medications that are manufactured primarily from plasma.

Plasma is the liquid part of blood that transports blood cells and nutrients in the body. Thousands of Québecers need plasma to treat various illnesses, such as neurological disorders, immune deficiencies, and other diseases, like hemophilia.



## **STEM CELLS**

Stem cells are the "parent" cells from which all the other blood cells develop.

They are found in bone marrow, peripheral (circulating) blood, and umbilical cord blood. For some patients, a stem cell transplant is the only chance of survival. Some diseases cause the destruction or abnormal functioning of the bone marrow, and the treatment of last resort involves replacing the patient's stem cells with those from a healthy person.



# **HUMAN TISSUES**

Human tissues can be collected for transplanting purposes.

This involves, for example, heart valves and ocular, cutaneous, arterial, and musculoskeletal tissues. One tissue donor can help up to 20 people, whether to restore sight through a corneal transplant or to treat serious burns with cutaneous tissues.



### **MOTHER'S MILK**

Collected mother's milk is particularly beneficial for infants born extremely pre-term who cannot be breastfed by their mother.

It reduces the risk of developing a serious intestinal disease.

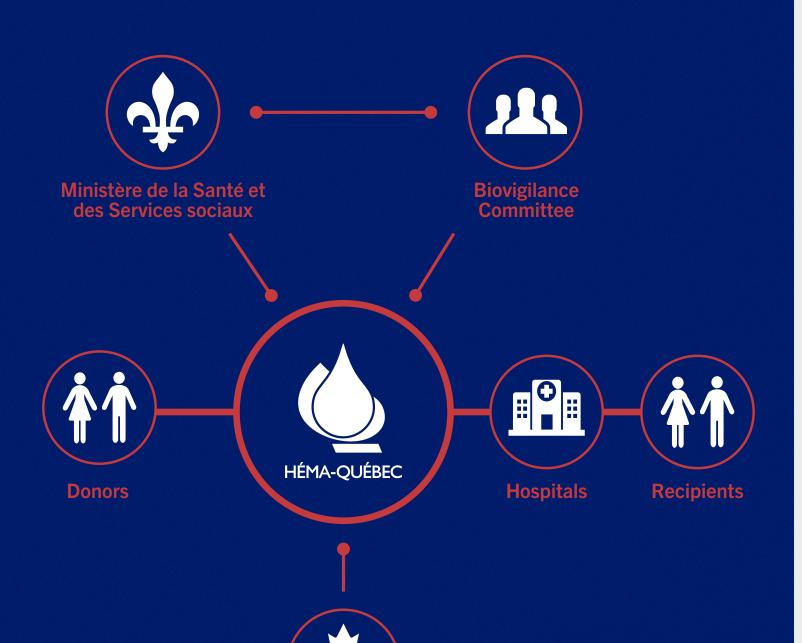


# SPECIALIZED LABORATORY SERVICES

Héma-Québec provides specialized analysis services to its partners in the Québec health system.

These can include requests for analyses for case studies in erythrocyte and leuco-platelet immunology, erythrocytic genotyping, HLA typing for patients, or screening tests for donors of blood products and stem cells.

# THE BLOOD AND BIOLOGICAL PRODUCTS OF HUMAN ORIGIN SYSTEM IN QUÉBEC



**Health Canada** 

# FROM BLOOD SUPPLIER TO EXPERT IN BIOLOGICAL PRODUCTS OF HUMAN **ORIGIN**

Creation of the

compensation

plan for victims of

a Héma-Québec

product

Start of Héma-Québec's operations as a supplier of blood products and medications manufactured from plasma (stable products)



1998



Creation of the Public Cord Blood Bank



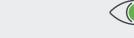
2004

Québec Public Mothers' Milk Bank

Obtained the mandate to be the sole distributor of human tissues



Creation of the



2014

2021

2001



Creation of the Human Tissue Bank

Opening of the first **GLOBULE Blood Donor** Centre

2005

Operational start-up of the first GLOBULE mobile blood donation

> Opening of the first PLASMAVIE Plasma Donor Lounge

human origin

2013

Revision of the Act

respecting Héma-Québec:

mandate expanded to

biological products of

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

2018

Héma-Québec mandated by the MSSS for the evolution of the on the traceability of blood products

information system (SIIATH)

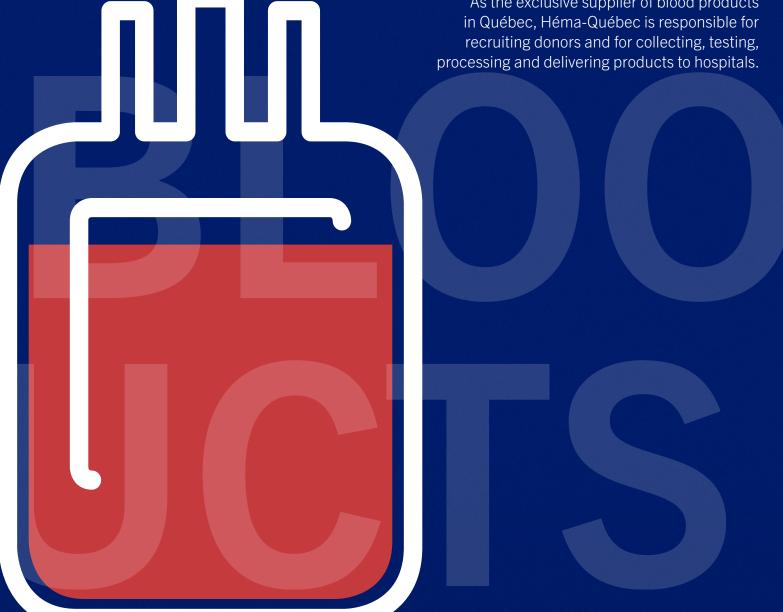






# BLOOD PRODUCTS

As the exclusive supplier of blood products







(all types of donations)

**STORAGE** 

Compliant products are

be sent to hospitals.

labelled and stored, ready to



to the collection sites (all types of donations)







# FROM DONATION TO DISTRIBUTION .....

# DONATION The blood collection lasts about ten minutes. In addition to the blood bag, sample tubes are collected for testing. **DELIVERY** The products are delivered to hospitals. The components used vary depending on patients' needs.

# **TRANSPORTATION**

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

#### ANALYSES

The samples are sent to the qualification lab to determine the donor's blood type and to screen for the presence of infections.



#### **SEPARATION OF BLOOD**

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



# STABLE PRODUCTS



Héma-Québec is the exclusive distributor of stable products for Québec. It is responsible for supply strategies, the purchase of medications manufactured primarily from plasma (stable products), 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.



# ..... IMPROVING PLASMA SUFFICIENCY

69.4%

intended for manufacturing medication

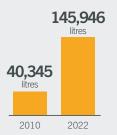
Immunoglobulins are the most widely used plasma products in Québec, and the organization is aiming to increase the sufficiency of them. In 2021-2022, the volume of plasma used for manufacturing medication met 30.6% of Québec's immunoglobulin needs.

stored, ready for shipment to hospitals.

#### Immunoglobulin sufficiency rate



Increased amount of plasma collected for manufacturing



Sufficiency relies on the generosity of donors



**PLASMA DONORS** 

# FROM DONATION TO DISTRIBUTION

# Plasma donations are collected in donor **DELIVERY** Products are delivered to hospitals. **RETURN OF PRODUCTS AND STORAGE** The finished products are then returned to Héma-Québec and

#### DONATION

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

## **FREEZING**

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

#### ANALYSES

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



### **FRACTIONATION**

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



# STEM

# **STEM CELL DONOR REGISTRY**

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 nearly 54,000 enrolled individuals who have consented to donating if they are found to be compatible with a patient. Héma-Québec's Registry is certified as meeting the highest international standards and is part of the World Marrow Donor Association's (WMDA) global network.



The Stem Cell Donor Registry is linked to the international donor bank of the World Marrow Donor Association (WMDA), which provides access to almost 38 million potential stem cell donors.

## STEM CELL DONOR REGISTRY

# ----- AT A GLANCE -----





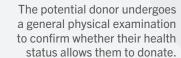
The registry is part of a global network of nearly





# STEM CELL DONATION: STEP BY STEP

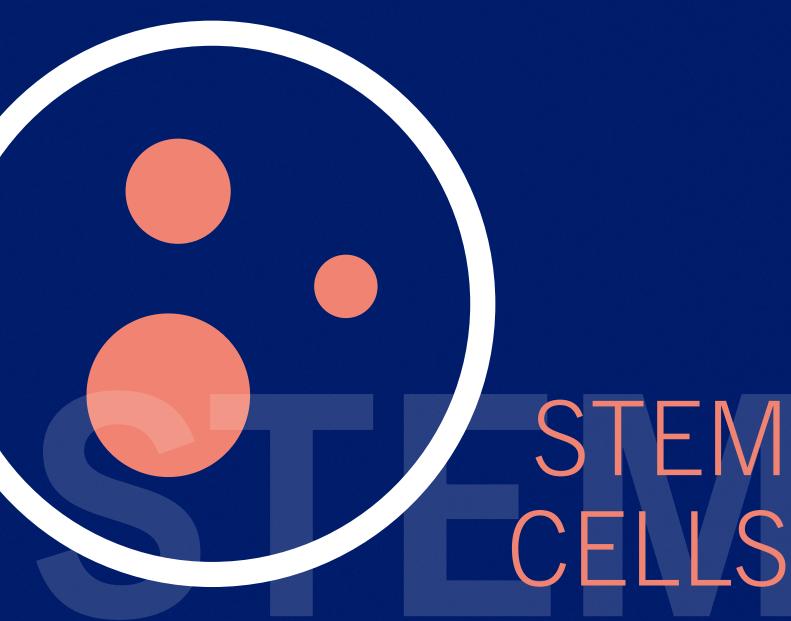




**DONATION** 



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



# **PUBLIC CORD BLOOD BANK**

Umbilical cord blood is very rich in stem cells. The Public Cord Blood Bank (PCBB) provides access to a complementary source of stem cells, other than those from bone marrow or peripheral blood. Like Héma-Québec's registry of adult donors, the PCBB is an integral part of the international registry of the World Marrow Donor Association. While Héma-Québec is responsible for donor registration and qualification, the collection itself is done in nine partner hospitals. Upon receipt of the collected cord blood, Héma-Québec processes, analyzes and cryopreserves, or banks the cord blood units. It is the first operational public cord blood bank in Canada.

## PUBLIC CORD BLOOD BANK

# AT A GLANCE .....



•••••

**REGISTERED** in the Public Cord Blood



**UNITS** 

DISTRIBUTED worldwide in 2021-2022

•••••



Partner HOSPITALS





**UNITS** DISTRIBUTED

worldwide since 2008

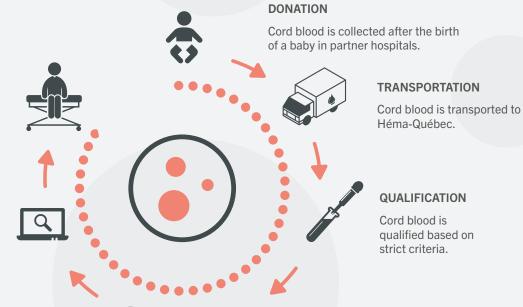
# FROM DONATION TO **TRANSPLANTATION**

# **TRANSPLANTATION**

The patient is transplanted.

#### **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.



# Cord blood is

•••••

qualified based on strict criteria.



#### PROCESSING AND STORAGE

-150°C 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.

# TISSUES Héma-Québec manages the Public Human Tissue Bank in Québec. It is responsible

for collecting, processing, qualifying and

distributing human tissues to meet the

needs of hospitals. One of the team's

missions is to raise awareness among

following their death.

healthcare professionals of the importance

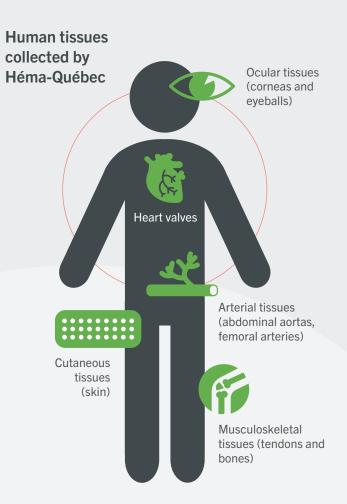
of identifying and referring potential donors

# ----- AT A GLANCE

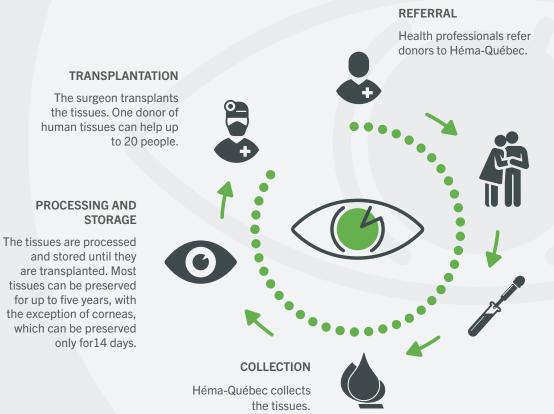








# FROM REFERRAL TO TRANSPLANTATION



## CONSENT

Consent registries are checked. Whether the consent is entered in the registry or not, 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.

#### QUALIFICATION

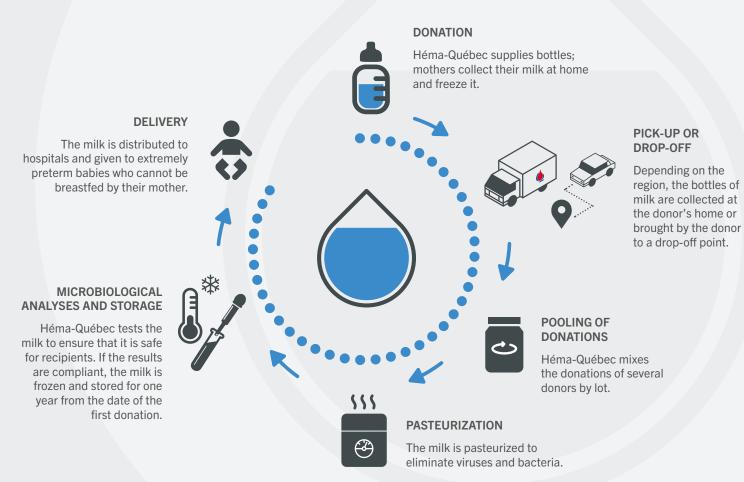
Héma-Québec conducts a thorough evaluation to verify the donor's eligibility.



Héma-Québec manages the Public Mothers' Milk Bank in 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, the processing and analysis of milk, as well as its distribution to hospitals.

# ----- AT A GLANCE Saguenay 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 **REGISTERED DONORS** bottles can be brought to one of the drop-off points. Québec City Trois-Rivières 23,362 Sherbrooke **BOTTLES** Montréal distributed Gatineau

# FROM DONATION TO DISTRIBUTION



# SPECIALIZED LABORATORIES

In addition to meeting the needs of the Québec population as a supplier of biological products of human origin, 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.

transfusion medicine.

----- AT A GLANCE



to the reference laboratories



## **Transplant Québec**

Héma-Québec's laboratories also support Transplant Québec by doing qualifying tests to determine whether a candidate for organ donation is a carrier of blood-borne infections.



# FROM REQUEST TO SPECIALIZED PRODUCTS AND SERVICES

# SCREENING OF STEM CELLS AND BLOOD PRODUCT DONORS

To ensure the supply of specialized products, the reference laboratories constantly perform screening tests of Stem Cell Registry donors, cord blood units and blood product donors to find a compatible person willing to donate.



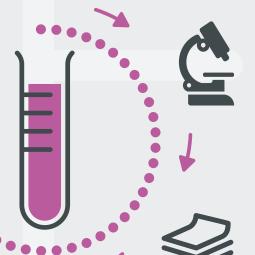
#### SPECIALIZED PRODUCTS AND SERVICES

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.



#### **REQUESTS AND SAMPLES**

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



# ANALYSES

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

#### REPORT

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



# STRATEGIC PARTNERSHIPS

# serving the health care system

The COVID-19 pandemic was an opportunity to use our expertise to serve public health in order to better understand and assess the advance of the pandemic.

# SEROPREVALENCE STUDIES

Our experienced scientists and our access to a large pool of donors were brought into play in seroprevalence studies whose objective was to document the percentage of the Québec population who had contracted the virus causing COVID-19, in order to help the authorities in the decisions pertaining to the pandemic context.

# PLASCOV BIOBANK

A biobank containing plasma samples (PlasCov) was created to collect and store plasma samples. This tool makes it possible to track the progress of vaccination's impacts on the pandemic. It also enables research to be carried out, including seroprevalence studies.



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