



# ANNUAL REPORT 2014–2015



BLOOD  
PRODUCTS



HUMAN  
TISSUES



STEM  
CELLS



MOTHER'S  
MILK

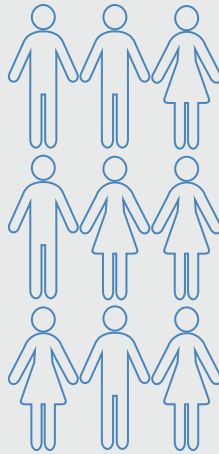


CELL  
PRODUCTION

# Héma-Québec in numbers...

**325,153**

**BLOOD DONORS**  
(all types of donation)



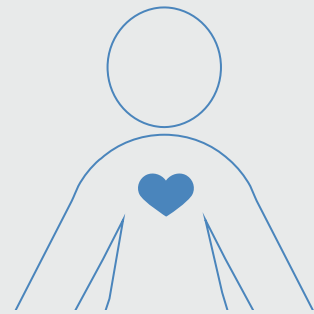
**55,575**

**REGISTERED  
STEM CELLS DONORS**



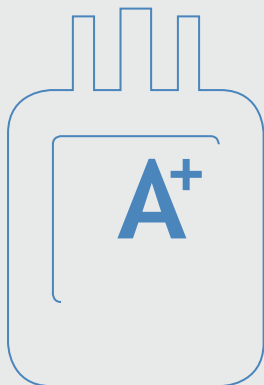
**1,318**

**EMPLOYEES**



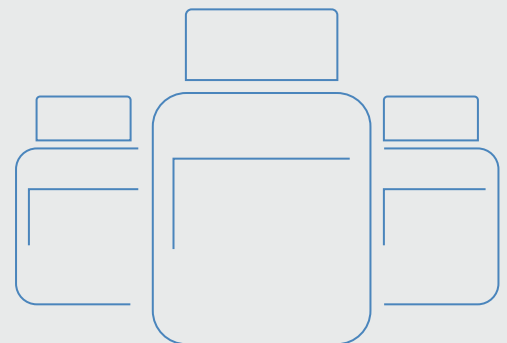
**16,000**

**VOLUNTEERS**



**484,848**

**LABILE BLOOD PRODUCTS  
DELIVERED TO HOSPITALS**



**363,621**

**STABLE PRODUCTS  
DELIVERED TO HOSPITALS**



# 4,080

HUMAN TISSUES  
DELIVERED TO HOSPITALS

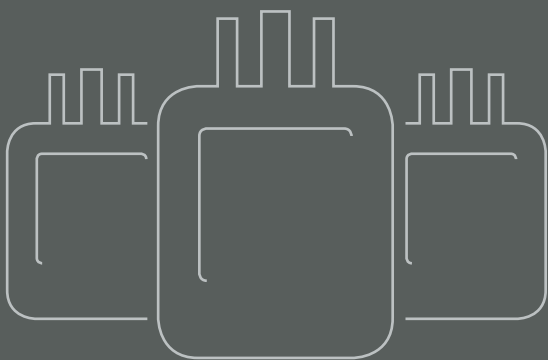
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# 9,345

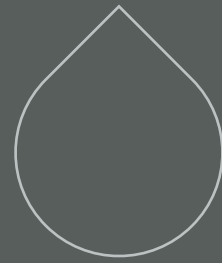
UNITS OF CORD BLOOD  
IN THE BANK

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# 61,824

LITRES OF PLASMA  
SENT FOR FRACTIONATION



# 2,066

BLOOD DRIVES  
ORGANIZED

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# 84

RESEARCH  
PROJECTS

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# 3,309

ANALYSES PERFORMED  
BY THE REFERENCE  
AND STEM CELL  
LABORATORY  
(PATIENT CASES)

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# 381

MILLION DOLLARS  
IN ANNUAL REVENUE



A full-page photograph of three business leaders standing on a modern staircase with a glass railing. On the left is a woman with short white hair, wearing a black blazer over a white top and a black and white checkered skirt, paired with black high-heeled shoes. In the center is a woman with curly brown hair and glasses, wearing a white blazer over a black top and a black skirt, paired with red high-heeled shoes. On the right is a man with long brown hair, wearing a dark suit, a blue shirt, and a patterned tie, leaning on the glass railing. The background shows a modern building with large windows and a glass railing.

# Leaders' messages

Martine Carré, Smaranda Ghibu  
and Marco Décelles.

## REAFFIRMING OUR OBJECTIVES

***Beyond blood.*** This was the theme of Héma-Québec's annual report for the previous year. More than ever, this statement characterizes the very essence of what Héma-Québec is today.

Labile blood products used to account for most of our activities. The 2012–2015 *Strategic Plan* allowed for the integration of all of the regulated production and processing expertise acquired since Héma-Québec was founded.

Major milestones of the strategic plan have been crossed. Positioning our organization as a supplier of human-derived biological products is proving successful; for example, with the creation of the first public mother's milk bank in Québec in April 2014.

Increasing Québec's self-sufficiency in terms of plasma used to manufacture medications is a major organizational challenge. Major human and monetary investments are required to expand our collection centre network. The Board has been paying particular attention to these expansion projects.

I would like to acknowledge the exceptional contribution of certain key stakeholders, in particular, Smaranda Ghibu and Marco Décelles, who respectively assumed the roles of President and Chief Executive Officer on an interim basis. They took over the helm of the organization following the departure of Jean De Serres, who positioned Héma-Québec to face the challenges posed by using human-derived biological products in medicine.

The past months have also provided an opportunity to take stock of the development of cell production activities in order to properly position this promising sector. More than ever, Héma-Québec is taking steps to achieve its vision and excel for better health.



**Martine Carré, MA**  
*Chair of the Board of Directors*

## DOING MORE, DOING IT BETTER.

**In 2014–2015 the trend that began two years ago was confirmed: demand for labile blood products is decreasing. This situation, which is occurring throughout North America and Europe, requires an excellent ability to adapt in terms of the supply strategy.**

In this context, efforts are increasingly being focused on efficiency gains. Process optimization and the implementation of new measures have generated a surplus of just over \$1.7 million for activities related to labile blood products. These efforts translate into lower rates for our clients. In concrete terms, with inflation taken into account, packed red blood cells now cost the health system less than in 2006–2007. We are proud of this accomplishment, particularly considering the lower demand.

Upgrading of the eProgesa blood management software is in the final stretch, and blood collection activities are moving into the digital era. Several large teams contributed to this operation. The main effects of these technological changes will be increased safety and a reduction in the risk of data entry errors. Benefits will also be felt in terms of blood drive efficiency and, finally, the environment since these changes will reduce the organization's use of paper.

Stable products account for a considerable portion of Héma-Québec's budget. This sector alone accounts for 60% of the organization's total expenses: \$221 million of the \$366 million of expenses included in the financial statements. This is almost double the expenses associated with labile blood products.

The past year was marked by a new call for tenders for the distribution of two stable products: factor VIII and recombinant factor IX. This exercise, which involved doctors from the hemophilia centres and the Canadian Hemophilia Society, will allow the Québec health system to save significant amounts compared to the previous contractual agreements. These savings are estimated at \$56 million over the three-year contract period.

Closely tied to stable products, the supply strategy for plasma intended for fractionation also saw a lot of activity. Héma-Québec continued its strategy to increase the collection of plasma, in particular through the development of the network of centres dedicated to this type of collection.

In the spring of 2014, very premature newborns began having access to mother's milk from the public bank. Héma-Québec's experience and know-how as a supplier of human-derived biological products was put to use in the development of this new activity, which complements other activities related to blood products, cord blood, hematopoietic stem cells and human tissues. Over 1,000 units were distributed during the first weeks of operation. Improvements are being made to our production process following a temporary interruption in December 2014, and the necessary measures are being deployed so that we can reach our cruising speed.

This flurry of activity impacts the organizational culture, and we must acknowledge once again the exceptional commitment of the individuals who work to achieve Héma-Québec's mission. The signing of letters of understanding with all the unions affected by workforce flexibility at blood drives is one of several projects that were carried out, including the opening of a mobile blood drive regional centre on the South Shore,

implementation of the new job title of blood drive agent, and other efforts related to workforce versatility.

Over these past months, we have been able to appreciate the unwavering commitment and competence of the employees working to achieve our great mission.

Your commitment inspires us to constantly do more for our mission to give life!



**Smaranda Ghibu, BCL, LLB**

*Acting President*

*Vice-President, Corporate Affairs*

*Acting Vice-President, Quality and Regulatory Affairs*



**Marco Décelles, CPA, CMA**

*Acting Chief Executive Officer*

*Vice-President and Chief Operating Officer*



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2014–2015 annual report  
covers the financial year  
from April 1, 2014  
to March 31, 2015.

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## Context and highlights

The second part presents the highlights of the past year and the context surrounding the performance of its activities.

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The fifth part reports on the actions taken in response to legislative and government requirements that Héma-Québec must comply with.

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## Financial statements

The final section presents the financial statements.



## An expanded mandate: a new mission

Héma-Québec's mission statement has been updated to reflect the expanded mandate given to it under the new *Act respecting Héma-Québec and the biovigilance committee*.

It should be reminded that this law, which has been in effect since 2013, allows the government to assign Héma-Québec new responsibilities for any human biological products, including the expansion of its mandate with regard to stem cells. It was this law that gave the green light to the creation of the Public Mothers' Milk Bank.

# MISSION

To efficiently meet the needs of the Québec population for safe, optimal-quality blood and blood products, human tissues, cord blood, mother's milk and cellular products; to develop and provide expertise and specialized, innovative services in the field of human biological products.

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# VISION

To excel and innovate for better health.

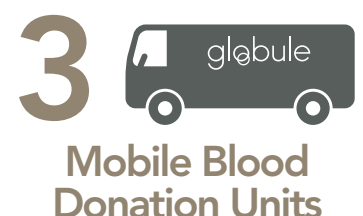
# Administrative organization

Héma-Québec is a non-profit organization founded in 1998. It is administered by a Board of Directors made up of members who represent all of the stages in the transfusion chain. Thus, the Board includes representatives of donors, volunteers, recipients, physicians and hospital administrators, the public health sector, the scientific community and the business community.

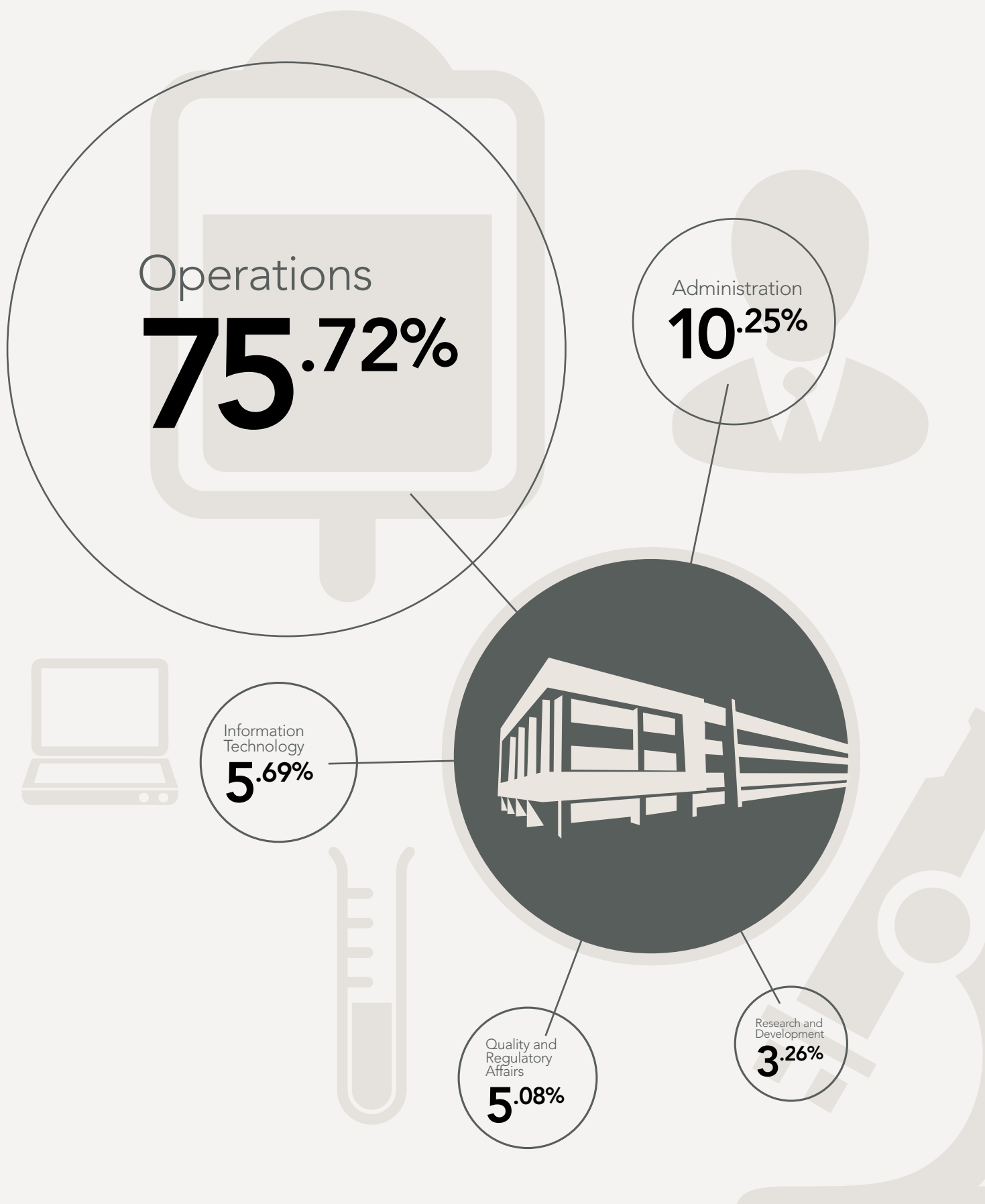
In terms of product safety, Héma-Québec is governed by the rules established by Health Canada. In Québec, the blood management system is part of the health system. As a supplier, Héma-Québec is responsible for recruiting donors, collecting blood, testing and processing them and delivering the finished products to hospitals.

Supplying cell and tissue products to hospitals is also an important component of its mandate. Héma-Québec collects, processes and distributes human tissues such as corneas, skin, bones, heart valves and tendons and represents the largest human tissue bank in Canada. It is also responsible for the Stem Cell Donor Registry for Québec and for the first and largest Public Cord Blood Bank in operation in Canada.

Héma-Québec also manages the only Public Mothers' Milk Bank in Québec, whose purpose is to meet the needs of very premature newborns. It recruits and screens donors and then processes and tests the milk and distributes it to hospitals.



# Breakdown of employees by sector



# CONTEXT AND HIGHLIGHTS



Martin Dupuis, Human Tissue Technologist, proceeds to the freezing of human tissues.

Issues and  
priorities

Risk  
management

Principal  
activities and  
accomplishments

# Issues and priorities

Héma-Québec enjoys strong recognition in the life sciences sector in Québec. In order to continue to excel and innovate for better health, it must adapt to a constantly changing environment and seize opportunities for development.



Annie Roy, Project Coordinator  
at the cell production laboratory.



# PUBLIC MOTHERS' MILK BANK AN IDEA MADE INTO REALITY



Labelling of a bottle  
of mother's milk.

In April 2014, Héma-Québec delivered the first units of mother's milk. The purpose of the Public Mothers' Milk Bank is to efficiently meet the needs of premature babies born at 32 weeks or less who cannot be breastfed.

As at March 31, 2015, Héma-Québec could count on the generosity of 670 registered donors, double

the number of donors needed, which is estimated at 300 per year. In all, 1,780 bottles were distributed to hospitals that requested them throughout the year. This is a very promising start, despite the temporary suspension of production and distribution of mother's milk between December 2014 and March 2015.

# INCREASE IN PLASMA COLLECTION



# 16.1%

Self-sufficiency rate  
for intravenous  
immunoglobulin (IVIg)

Bags of plasma and platelets  
during an apheresis donation.

Plasma is used, among other things, to make medications for patients suffering from an immune deficiency or other diseases, such as neurological ones. A portion of the Québec plasma is sent for fractionation in order to isolate the plasma proteins that are used to make medications. These proteins include immunoglobulins. In 2014–2015, the volume of Québec plasma sent for fractionation met 16.1% of Québec's need for intravenous immunoglobulin (IVIg). The other portion of the IVIg came from foreign sources.

Héma-Québec wants to progressively increase the proportion of IVIg derived from Québec plasma, so as to maintain a constant supply of plasma products for Québec patients. At a conference on IVIg organized by Héma-Québec and attended by national and internatio-

nal experts as well as stakeholders, it was determined that an objective of 30% self-sufficiency was needed. The creation of the PLASMAVIE Plasma Donor Lounge in Trois-Rivières was the first answer to this challenge. The initiative was a success. In the fall of 2014, one year after the first centre was opened, Héma-Québec announced the implementation of additional centres in the cities of Saguenay, Sherbrooke and Gatineau. These centres will open in 2015–2016, starting with the PLASMAVIE-GLOBULE in Saguenay. The development of the PLASMAVIE Plasma Donor Lounge network will then continue based on the targeted self-sufficiency level. Moreover, a collection program for plasma by apheresis intended for fractionation will be extended to all GLOBULE Blood Donor Centres.

# STEM CELL DONOR REGISTRY

## RECORD NUMBER OF REGISTRATIONS



HÉMA-QUÉBEC

[www.hema-quebec.qc.ca](http://www.hema-quebec.qc.ca)



HÉMA-QUÉBEC

4045, boulevard Côte-Vertu  
Saint-Laurent (Qc) H4R 2W7

Produits sanguins  
Cellules souches  
Tissus humains



# 25,946

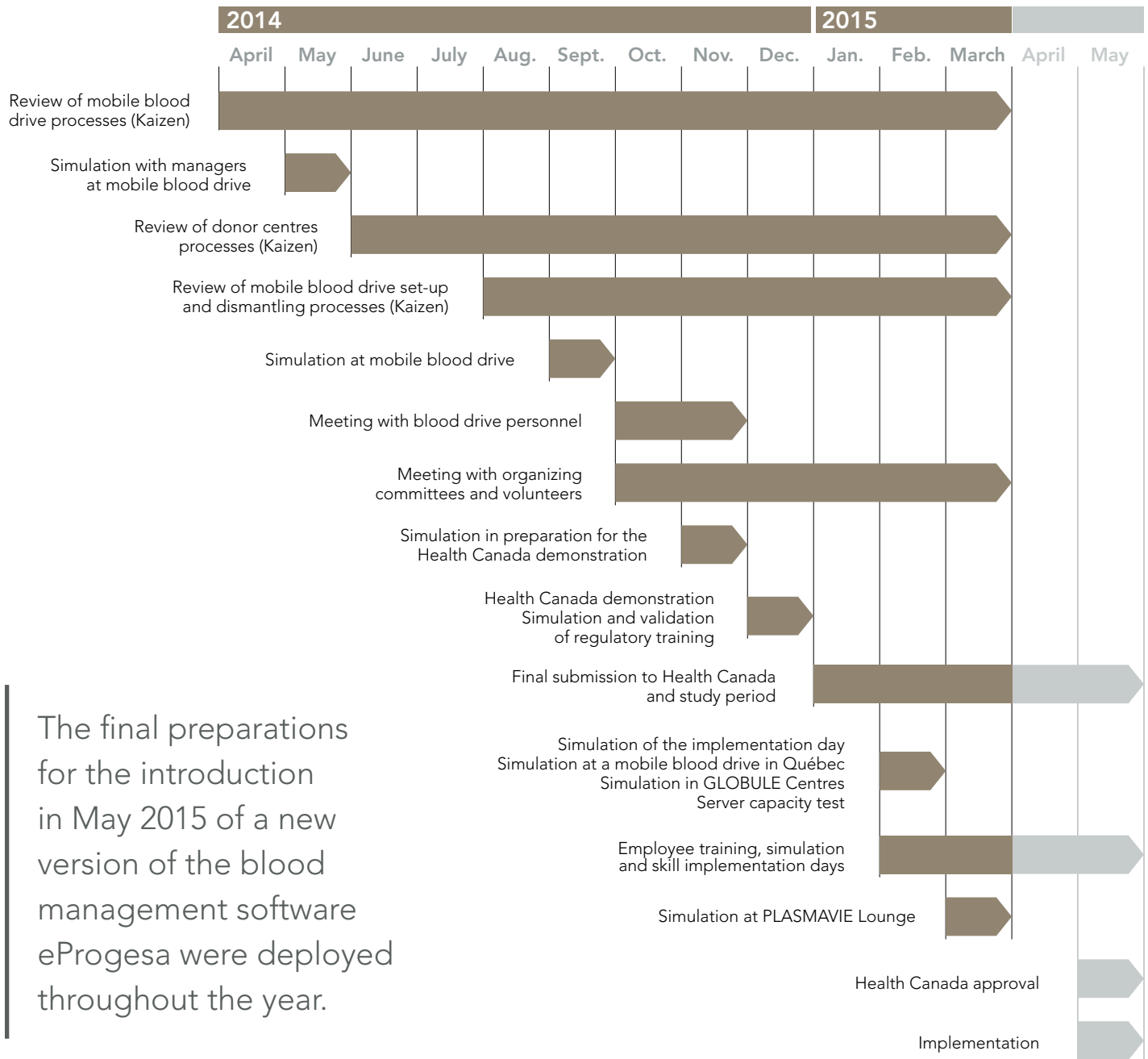
REGISTRATIONS  
RECEIVED IN 2014–2015

2014–2015 was an active year for the Stem Cell Donor Registry team. Campaigns initiated by the families of patients waiting for a compatible stem cell donor had a significant impact on the number of people signing up for the Registry. This phenomenon resulted in a significant increase in the workload of the Reference and Stem Cell Laboratory. Last year, Héma-Québec received and processed 25,946 registrations whereas it usually receives approximately 3,000 per year.

Although the enthusiasm for the registry is excellent news for the patients who will need a stem cell transplant, this situation raises new issues for the organization, including the fact that only 42% of the mouth swab kits sent out were returned.

Héma-Québec has therefore stepped up its awareness raising activities to inform the public about stem cell donation and the importance of understanding the implication of registering. It also intends to continue its efforts to reduce the withdrawal rate. In addition to this challenge, there is also the issue of the under-representation of communities other than Caucasian in the Registry and that of HLA typing, which is evolving and becoming more complex every year. The objective to increase registration diversity was partially achieved; for example, following the campaign carried out by a patient of Asian origin, the proportion of Asian donors in the Registry increased from 0.9% to 4%. Issues pertaining to compatibility will be presented on page 24.

# FINAL STEPS PRIOR TO DEPLOYMENT



This blood drive process optimization and automation project will significantly increase efficiency, particularly through the electronic entry of information related to the blood donation and the introduction of the medical self-administered questionnaire. Thus, the donor will provide his/her personal information,

complete the questionnaire and sign the donation consent electronically. These technological changes will improve the flow of the collection process, as well as increase data security and reduce the number of data entry errors since the information collected from the donor will be entered and processed by computer.

# Risk management

Héma-Québec applies rigorous standards in order to earn the trust of the public and its clients. The safety and quality of the products distributed and services provided are a priority at all levels of the organization. It therefore practices proactive, systematic, structured and transparent risk management based on the best information available.

## INTERNAL AUDITS

Héma-Québec conducts more than 20 internal audits every year. This rigorous exercise allows the organization to identify and implement better quality parameters as well as to prepare for mandatory inspections by regulatory agencies. The ultimate purpose is to increase the safety and quality of the supplies by verifying the compliance of its activities. The results obtained during annual inspections have once again demonstrated that Héma-Québec meets the highest standards of quality.



## Emerging pathogens: a constant concern

Prevention is an important aspect of safety. Héma-Québec constantly monitors emerging pathogens: bacteria, viruses or parasites that can be transmitted through blood. The appearance of a new pathogen can lead to the implementation of additional measures, such as tests or questions related to risk factors in the questionnaire given to donors to determine their eligibility.

### ***Ebola***

Some 20 pathogens are being monitored. The Ebola virus, which was the source of a major epidemic in Western Africa, is among them. A risk assessment led to the addition of a question in the questionnaire for plasma donations intended for fractionation so as to temporarily exclude donors having travelled to certain African countries. No donor was excluded as a result of this criterion. In the case of donations intended for transfusion purposes, the risk was mitigated since donors having travelled to one of the countries considered at risk for the Ebola virus are already temporarily excluded due to the criteria concerning malaria. Moreover, the protocols already provide for the exclusion of donors presenting symptoms associated with people infected by the Ebola virus.

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### ***Babesiosis***

Babesiosis, a parasitic infection transmitted by tick bites, is being closely monitored. Since this infection is emerging in the United States, Héma-Québec conducted an investigation in keeping with Canadian Blood Services to determine if the frequency of this infection in blood donors in Québec and the rest of Canada justified additional measures to protect the blood supply. No donor in the study developed antibodies against the parasite (no recent or past infection) and it was concluded that babesiosis did not represent a significant risk. As a result, no measure was implemented; however, the monitoring will continue.

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### ***Chikungunya***

Monitoring of the Chikungunya virus epidemic, which affected several West Indian islands, also increased. A quantitative risk analysis determined that the risk for Héma-Québec's blood supply, related to donors having travelled to these islands, is minimal for the time being. Nevertheless, monitoring will continue.



## Platelet bacterial culture: better measure

Since the early 2000s, bacterial contamination of platelets has been a risk justifying the implementation of certain mitigation measures. Although these measures have considerably reduced the risk, they have certain limitations and a risk of contamination remains. Héma-Québec has therefore undertaken a two-step process to reduce this risk.

First, Héma-Québec doubled the sampling volume for bacterial culture. This additional volume increases the possibility of detecting the bacteria present in the product. This measure was implemented in November 2014. A second phase is aimed at increasing the sampling period so as to obtain optimal sensitivity of the bacterial culture. Héma-Québec is waiting for approval from Health Canada since this modification will change the expiry date of the platelets from five to seven days.

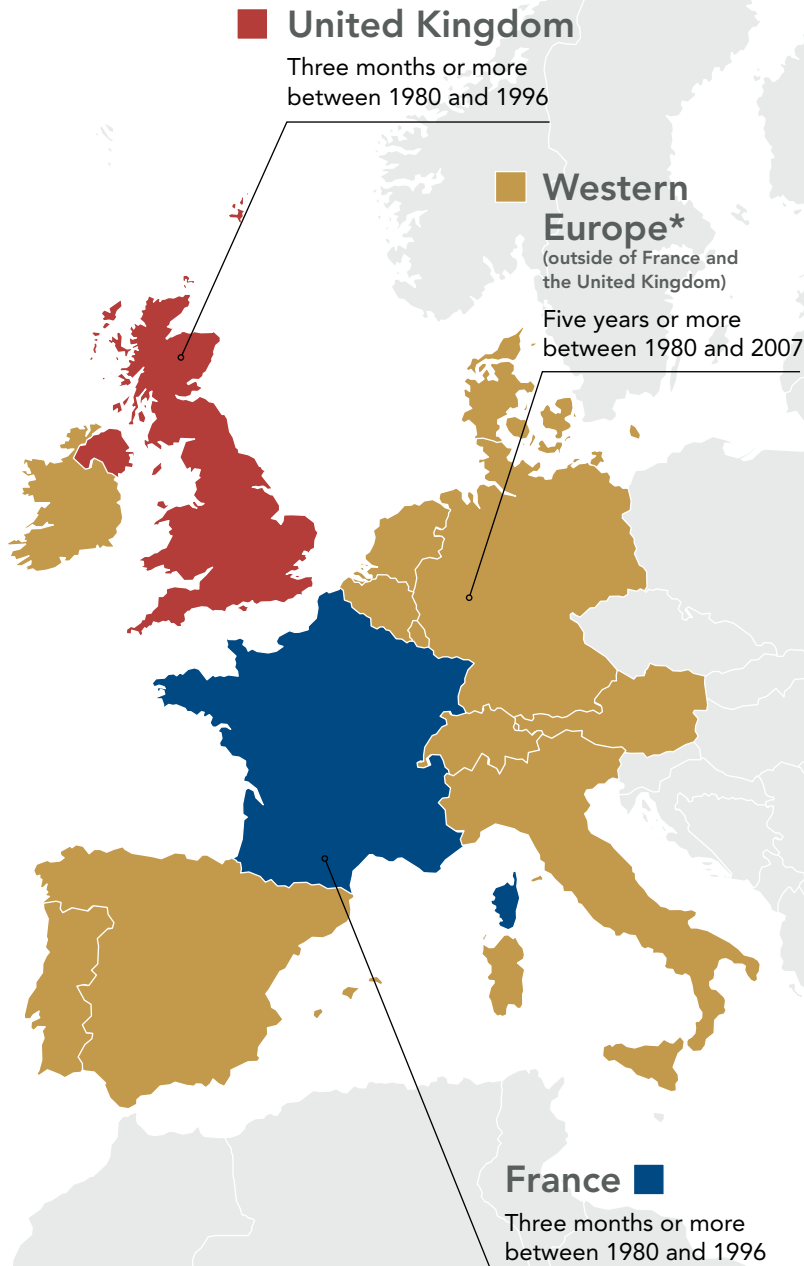
## Replacement of the collection device: safety first

A new whole blood collection device, the T4, makes it possible to collect an additional 50 ml during a donation, increasing collections from 450 ml to 500 ml.

However, following the implementation of this device in June 2014, the quality control tests performed by Héma-Québec demonstrated that the standard for the quantity of post-leukoreduction residual leukocytes was not met. Leukoreduction is a blood filtering process that removes leukocytes (white blood cells) in order to eliminate the risk of transmitting certain pathogens.

To ensure maximum product safety, although the risk is considered moderate, Héma-Québec decided to reintroduce the former devices and remove the T4 devices for as long as needed to find a lasting solution that meets the standards for residual leukocyte quantities.

# Review of the Creutzfeldt-Jakob criteria



At the time of emergence of the variant of Creutzfeldt-Jakob disease (vCJD), better known as the human form of mad cow disease, the potential for transmission through transfusion was unknown. The precautionary measures initially implemented were therefore based on a risk that was difficult to evaluate. At the time, Héma-Québec had adopted the strictest qualification criteria in the world.

In light of current knowledge with regard to the evolution of the disease in Western Europe and the extremely low risk of transmission of vCJD through transfusion, Héma-Québec decided to adjust its criteria. First, the United Kingdom and France are now excluded from the evaluation of length of stays in Western Europe. Moreover, the at-risk period for Western Europe is now closed, i.e., it is limited in time. Thus, the period to be used to calculate the cumulative length of stays runs from 1980 to 2007, whereas previously it had simply been as of 1980. The criteria for France, the United Kingdom and Saudi Arabia remain unchanged.

# Donations confirmed positive for markers of transmissible diseases

Héma-Québec analyzes all the blood donations it collects in order to detect blood-borne diseases. If a positive result is obtained, the donation is destroyed and the donor is notified. As indicated in the following table, there have been no statistically significant variations in the number of infections detected in donors in recent years.

DONATIONS CONFIRMED POSITIVE ACCORDING TO THE MARKERS

	2010–2011	2011–2012	2012–2013	2013–2014	2014–2015
Human immunodeficiency virus (HIV)	1	1	1	0	1
Hepatitis C virus (HCV)	18	21	7	22	12
Hepatitis B virus (HBV)	25	27	25	16	15
Human T-cell lymphotropic virus (HTLV)	3	2	7	0	1
Syphilis	11	18	24	23	17
Total number of donations	275,717	291,306	290,787	277,956	276,473

## Prevalence of HIV and HCV among Héma-Québec donors compared to the general population

The donor selection criteria are still effective: the number of infections detected in Héma-Québec blood donors is significantly lower than that observed in the population.

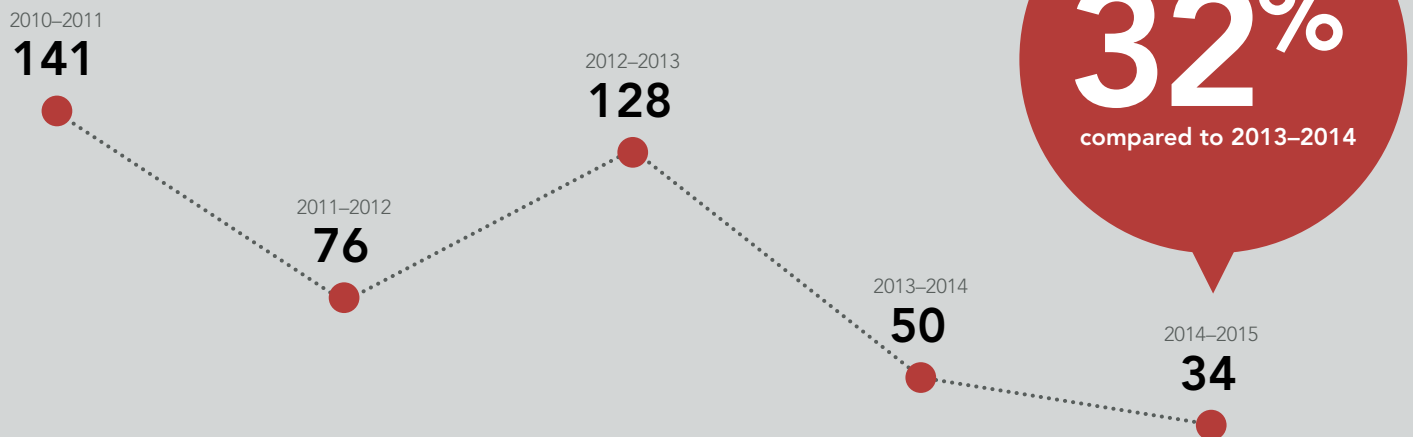


	Population	Héma-Québec
VIH	0.2% (1/500)	0.00036% (1/277,777)
Hepatitis C virus (HCV)	0.8% (1/125)	0.0043% (1/23,256)

# Declarations of errors and accidents

All of the activities pertaining to the collection, processing, analysis and delivery of products are governed by rigorous procedures and standards. Any unexpected deviation in such procedures, whether as a result of human error or another cause, is recorded and analyzed so as to assess the risk of compromising product safety and effectiveness. Such deviations are considered errors. “Accidents” are situations that could occur at any time during the process despite compliance with procedures. In both cases, the products concerned are immediately removed from the inventory and destroyed.

## Total errors and accidents



This year, there was a total of 34 errors and accidents, which represents a decrease of 32% compared to last year and 73% compared to 2012–2013. These reductions can be attributed to process improvements, corrective actions or adjustments to controlled procedures.

Among the errors and accidents detected this year, 38% occurred because donation eligibility criteria were not respected, specifically with respect to calculating

the total proteins of frequent plasma donors. In most of the cases observed, the protein analysis was not performed or not documented. An investigation was conducted and corrective action is being implemented. One quarter of the cases involved paper documentation or computer data entry errors. The computerization of blood collection activities will help correct most of the documentation errors.

## Audits

The purpose of process and quality control is to assess process management and deliver products of the highest quality. Every year, Health Canada inspects the two Héma-Québec facilities. It also reviews the operations of the GLOBULE Blood Donor Centres and the PLASMAVIE Plasma Donor Lounge every two years.

In 2014–2015, Health Canada inspected the Montréal and Québec City facilities and the GLOBULE Blood

Donor Centres at Place Versailles and Quartier DIX30. All related licenses were renewed. No major observations were made.

These results demonstrate once again that Héma-Québec observes the strictest safety standards and measures and that product safety is a priority.



# Challenges for the Québec registry

When a stem cell transplant is needed to treat a patient, the characteristics of the transplanted stem cells must be as close as possible to those of the patient. Since these characteristics are hereditary, close family members are more likely to be compatible (1 in 4 chance). In other cases, a compatible unrelated donor must be sought from among the individuals listed in stem cell registries throughout the world.







HLA markers determine the compatibility of stem cells. One of the major challenges of the HLA system is the discovery of new markers every year. For example, in 2000, there were approximately 1,500 markers whereas, in 2015, there are more than 13,000. Searches for compatible donors for patients waiting for a transplant are growing more complex. At present, less than 15% of Québec patients received stem cell transplants from a Québec donor. We therefore rely on international registries to satisfy more than 85% of the requests for unrelated transplants.

Considering the challenge posed by the evolution of HLA markers, having a diversified registry representative of the make-up of Québec’s population is all the more important. This is a major issue for Québec since most of the individuals listed in the Stem Cell Donor Registry, and in almost all of the 75 registries around the world, are of Caucasian origin. The situation is the same for cord blood units in the Public Cord Blood Bank.

A study of the HLA diversity of donors listed in our Registry identified strategic areas in Québec where the population has particular HLA characteristics. The conclusions of the study will help guide the recruiting strategy to increase the number of potential donors in these areas.

Lastly, the Registry currently includes only 14% men between the ages of 18 and 35. Stem cells from young donors have the best chances of success for transplants. A recruiting strategy focused on young men in this age group is therefore imperative.

## BREAKDOWN BY GROUP



Group	Caucasian	Asian	First Nations	Black	Hispanic	Other
Québec population (2006)	87.65%	3.39%	3.55%	2.53%	1.20%	1.67%
Stem Cell Donor Registry	86.46%	4.23%	0.41%	0.30%	0.35%	8.25%
Public Cord Blood Bank	84.40%	5.10%	0.10%	3.20%	2.80%	4.40%

# Public Cord Blood Bank: revised criterion and implementation of HLA typing for mothers

## *Review of the qualification criterion for cord blood*

Héma-Québec does everything possible to ensure that its stem cell products respond to the needs for stem cell transplants. Since units with the largest cell concentration are given preference, the eligibility criterion for cord blood from Caucasian women was revised. As a result, implementation of this criterion places Héma-Québec among the organizations with the strictest eligibility criteria in the world for Caucasian women.

## *Implementation of HLA typing for mothers donating cord blood*

Numerous studies on cord blood stem cell transplants demonstrate that the transplant success rate increases if the choice of the unit to be transplanted takes the mother's HLA typing into account. This reality prompted Héma-Québec to implement HLA typing for mothers who donate their cord blood.



Handling of a cord blood unit.

The stem cell quality control tests performed by Héma-Québec serve to evaluate the quality and compliance of the processing methods.

## STEM CELL QUALITY CONTROL

Products	Tests performed	Number of products tested	Compliance percentage
Cord blood stem cells (post-processing)	Sterility	1,200	96%*
Peripheral autologous stem cells (post-processing)	Sterility	161	100%

\* The cord blood stem cell collection method is more susceptible to contaminants; however, the result observed is highly comparable to that obtained by other cord blood banks.

# Audits

The results of periodic inspections of Héma-Québec’s operating procedures conducted by regulatory agencies reflect the level of quality control Héma-Québec has over its operations.

In May 2014, the leukoplatelet immunology laboratory obtained a perfect grade during the audit conducted by the American Society for Histocompatibility and Im-

munogenetics (ASHI), and the laboratory’s certification was renewed. ISO 15189 certification was also renewed by the Bureau de la normalisation du Québec (BNQ) in February 2015 for the leukoplatelet and erythrocyte immunology laboratories. Lastly, NetCord-FACT certification was also renewed following the inspection of the Public Cord Blood Bank.

## Control tests

To ensure compliance with standards, sterility tests are performed on samples of the human tissues collected. Moreover, samples collected after processing are used to verify the quality and compliance of tissue processing and disinfecting methods.

Given the limited number of products collected, a certain amount of variability may be noted with regard to the rejection percentage, without there being any statistically significant trend.

### HUMAN TISSUE QUALITY CONTROL

Products	Tests performed	Number of products tested	Rejection (% of unacceptable microorganisms)
Skin tissues	Pre-processing microbiological culture	110	1.8%
	Post-processing microbiological culture	107	2.8%
Musculoskeletal tissues	Pre-processing microbiological culture	980	2.5%
	Post-processing microbiological culture	534	0.0%
Heart tissues	Pre-processing microbiological culture	43	16.2%
	Post-processing microbiological culture	43	4.6%

## Audits

In the past year, the human tissue quality system related to the production of heart valves was audited in accordance with ISO 13485 and its certification was renewed. The American Association of Tissue Banks also audited the activities of the Human Tissue Bank

and renewed its certification. Lastly, Health Canada audited the eye tissue production quality system. It was deemed compliant with the *Safety of Human Cells, Tissues and Organs for Transplantation Regulations*.

## Temporary stop in production

In December 2014, Héma-Québec temporarily suspended the production and distribution of mother's milk units. The temporary interruption of these activities was due to technical failures of certain devices used to process the milk. Close to 40% of the products did not meet the standards for bacterial cultures. This non-compliance rate prevented Héma-Québec from providing a sufficient supply to hospitals. All of the products distributed met optimal compliance standards; nevertheless, since the products are intended for a vulnerable clientele, Héma-Québec preferred

not to take any risks and opted for a cautious and preventive approach. This measure was based on the principle of precaution.

The stop in production and distribution will be maintained until the teams in the field have identified and implemented a lasting solution.

Donor recruitment and mother's milk collection activities have been maintained. The milk collected may be stored for one year and will be processed and tested when normal activities resume.



# Principal activities and accomplishments

## SUPPLY STRATEGY

**Héma-Québec has revised its supply strategy. This strategy focuses on the following strategic goals:**

- Increase the number of collections in donor centres

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- Automate the collection process

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- Increase workforce adaptability

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- Develop a culture focused on continuous improvement, problem solving and accountability

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- Increase the volume of plasma sent for fractionation

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Bags of blood.

A  
**4.2%**  
decrease in the  
demand

## Demand continues to decline

The decline in demand for fresh labile products, which began two years ago, continued in 2014–2015. This year, a 4.2% decrease in the demand for labile blood products was observed. This decrease translated into a decrease of 3.7% in deliveries of red blood cells to hospitals (9.1% over two years) and of 5.8% for platelets

(8.6% over two years). Moreover, changes to hospital medical practices have resulted in a decrease of 23.3% in the demand for plasma products since 2011–2012. This decrease stood at 10.5% in 2014–2015. Héma-Québec is adapting to this reality, specifically by increasing collections of plasma for fractionation.

This trend, which can be seen throughout North America and Europe, has resulted in a reduction in the number of registered donors needed. This situation stems from a decrease in collection activities, in connection with the demand.

## Results for whole blood donation

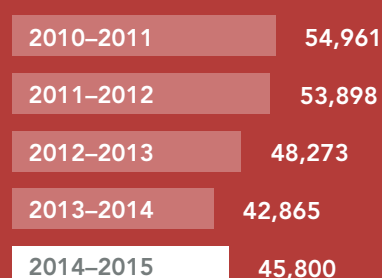
### Registered donors



### Donors who donated



### Donors who did not donate\*



### New registered donors



\* The number of donors who did not donate corresponds to the registered donors who did not make any donations, but for whom an exclusion was issued the same day or within seven days following registration. This category also includes registered donors who were not excluded but who did not complete a donation because they left, or experienced problems with a vein or discomfort.

## LABILE BLOOD PRODUCTS DELIVERED TO HOSPITALS

	2010–2011	2011–2012	2012–2013	2013–2014	2014–2015
<b>Total red blood cells</b>	<b>236,699</b>	<b>246,363</b>	<b>246,593</b>	<b>232,838</b>	<b>224,203</b>
Platelet pools <sup>1</sup>	3,387	7,609	6,343	4,388	4,891
Whole blood platelets	21,396	0	0	0	0
Platelets collected by apheresis	30,550	31,762	34,748	35,459	32,652
Equivalent platelets (pools + apheresis × 5)	169,685	196,855	205,455	199,235	187,715
<b>Total platelets</b>	<b>191,081<sup>3</sup></b>	<b>196,855<sup>2</sup></b>	<b>205,455<sup>2</sup></b>	<b>199,235<sup>2</sup></b>	<b>187,715<sup>2</sup></b>
Plasma from whole blood – 250 ml	41,771	32,992	30,914	25,961	13,319
Plasma collected by apheresis – 250 ml	8,997	10,163	11,368	10,464	16,945
Plasma collected by apheresis – 500 ml	6,047	6,083	6,250	5,488	6,086
Equivalent plasma (apheresis 500 ml × 2)	12,094	12,166	12,500	10,976	12,172
<b>Total plasma<sup>4</sup></b>	<b>62,862</b>	<b>55,321</b>	<b>54,782</b>	<b>47,401</b>	<b>42,436</b>
<b>Granulocytes</b>	<b>90</b>	<b>40</b>	<b>99</b>	<b>258</b>	<b>33</b>
<b>Cryoprecipitates</b>	<b>20,913</b>	<b>20,744</b>	<b>20,657</b>	<b>21,367</b>	<b>22,758</b>
<b>Cryoprecipitate supernatants</b>	<b>4,278</b>	<b>6,966</b>	<b>8,274</b>	<b>5,064</b>	<b>7,703</b>
<b>Grand Total</b>	<b>515,923</b>	<b>526,289</b>	<b>535,860</b>	<b>506,163</b>	<b>484,848</b>

<sup>1</sup> Platelets from whole blood grouped in a pool (a pool is equivalent to five buffy coats).

<sup>2</sup> For the past four years, “total platelets” corresponds to the sum of “platelet pools” and “platelets collected by apheresis” multiplied by five.

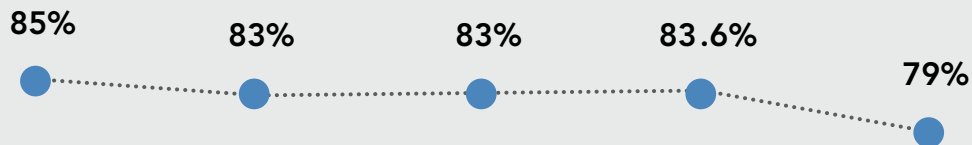
<sup>3</sup> In 2010–2011, “total platelets” corresponds to the sum of “platelet pools” and “platelets collected by apheresis” multiplied by five, plus “platelets from whole blood”.

<sup>4</sup> “Total plasma” is the sum of “plasma from whole blood,” “plasma collected by apheresis – 250 ml” and “equivalent plasma (apheresis 500 ml × 2)”.

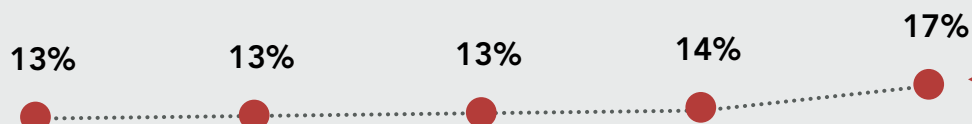
# Breakdown of whole blood collections

One of the goals of the supply strategy is to increase the number of collections in the blood donor centres as opposed to the mobile blood drives. In addition to collecting whole blood, these facilities also allow for the collection of targeted products based on needs, through apheresis collections. This strategy provides advantages, given the current context of fluctuating demand.

## MOBILE BLOOD DRIVES

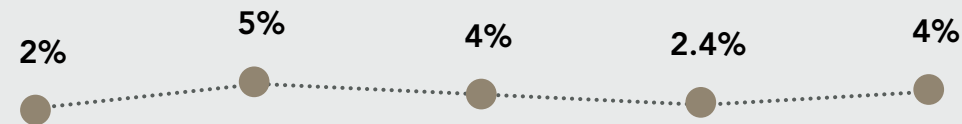


## GLOBULE CENTRES



<sup>A</sup>  
**24%**  
increase compared  
to 2010-2011

## MOBILE UNITS



2010-2011

2011-2012

2012-2013

2013-2014

2014-2015

## THIS YEARS

# 17%

of the whole blood  
collections are made in  
GLOBULE Centres

**OBJECTIVE: 25%**

The GLOBULE Centres  
welcomed an average of

# 1,700

donors per week

The unit cost  
per collection is

# 30%

lower in GLOBULE  
Centres than in mobile  
blood drives

The volumes collected in  
the donor centres  
increased by

# 11%





GLOBULE DIX30 Centre in Brossard.

## COLLECTIONS IN GLOBULE BLOOD DONOR CENTRES

	2010–2011	2011–2012	2012–2013	2013–2014	2014–2015
Whole blood	30,473	32,139	32,440	33,014	39,303
Apheresis platelets	32,430	33,659	36,788	37,548	35,299
Apheresis plasma 500 ml	9,400	9,781	10,004	10,712	12,201
Apheresis red blood cells	8,494 <sup>2</sup>	8,911	9,120	8,658	6,847
Apheresis plasma 250 ml (including MC <sup>1</sup> )	9,836 <sup>2</sup>	10,947	11,174	11,338	18,748 <sup>3</sup>
Granulocytes	90	58	138	275	33
<b>Total volumes collected</b>	<b>90,723</b>	<b>95,495</b>	<b>99,664</b>	<b>101,545</b>	<b>112,431</b>

<sup>1</sup> MC: donations made through multiple collections.

<sup>2</sup> Corresponds to the year in which this type of collection began.

<sup>3</sup> Introduction of the possibility to collect plasma concurrently with each platelet donation (possible every 14 days instead of 56 days) accounts for a portion of the increase in 250 ml plasma.

Mobile units are also proving to be a good collection method for in-demand groups, communities other than Caucasians, and blood drives with lower objectives, in addition to reducing collection costs for red blood cells.

In 2014–2015, Héma-Québec acquired two mobile units, while implementing various improvements to the processes, equipment and facilities. The three mobile units currently account for 4% of whole blood collections.



As part of its mission to efficiently meet the needs of the Québec population for safe, optimal-quality blood and blood products, Héma-Québec has an exclusive mandate to distribute stable products for Québec. Héma-Québec's role is not to manufacture stable products, but to purchase them from suppliers, manage the reserve and supply the hospitals.

Stable products account for a large portion of Héma-Québec's budget. This sector alone represents 60% of the organization's total expenses, which is close to double those associated with collecting, processing, testing and distributing labile blood products. Stable products account for \$220.7 million of the \$365.5 million in expenses in the financial statements.

Last year was marked by a new call for tenders for the distribution of two medications: factor VIII and recombinant factor IX.

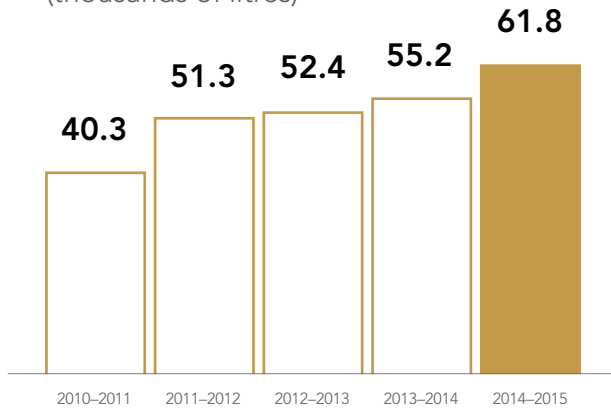
The successful bidders stood out in particular for the quality of the products, the conditions offered and the prices proposed. In accordance with the standards set by the Conseil du Trésor, Héma-Québec and the various suppliers have signed procurement agreements until March 2018. This decision will not only modify the product offer, but will also enable the Québec health system to achieve significant savings compared to previous agreements. These savings are estimated at \$56 million over the three-year contract period. The Canadian Hemophilia Society, which took part in the tender process, acknowledged the thoroughness of the process.



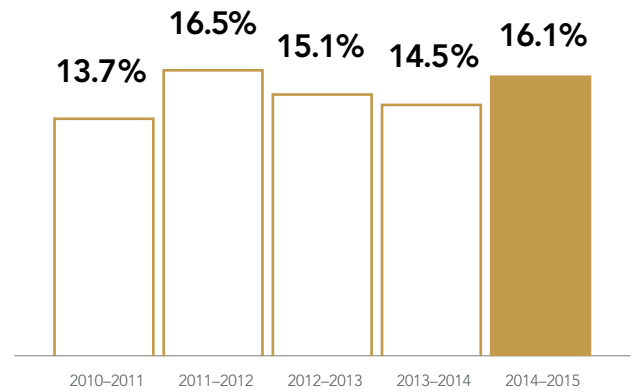
## Quantity of plasma sent for fractionation

### Volume

(thousands of litres)



## Rate of immunoglobulin self-sufficiency\*



\*Based on the quantity of plasma sent for fractionation in relation to immunoglobulin distributions during one year.

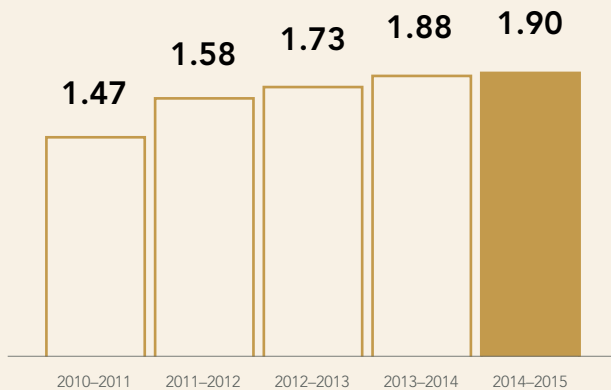
In 2014-2015, the volume of plasma sent for fractionation increased by 12%. This volume has increased by 53% since 2010-2011.

## DISTRIBUTION OF STABLE PRODUCTS TO HOSPITALS

### Intravenous (IVIg) and subcutaneous (SCIg) polyvalent immunoglobulins

#### Grams

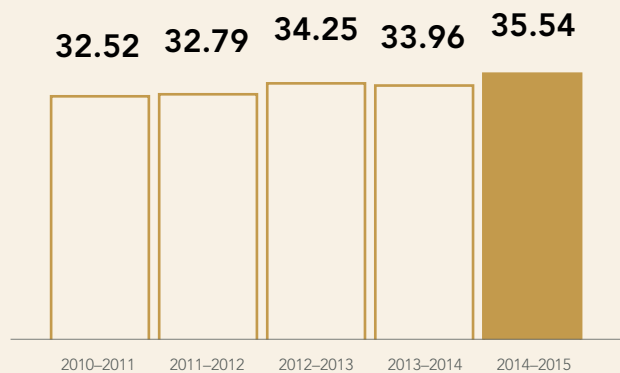
(in millions)



### Recombinant factor VIII

#### International units

(in millions)



After immunoglobulins, recombinant factor VIII is the second most important stable product in terms of distribution. This medication is intended for hemophiliac patients.

# Fractionation plasma supply strategy

The PLASMAVIE Plasma Donor Lounges are an important part of Héma-Québec's supply strategy, specifically with respect to increasing plasma self-sufficiency to 30% for 2020.

The results of the first PLASMAVIE Plasma Donor Lounge in Trois-Rivières are promising. The response of donors in the Mauricie region was immediate. During the first year of operation, 1,056 plasma donors made a total of 7,300 donations. Among these generous

donors, 30% made more than eight donations. It should be reminded that a plasma donation can be made every six days, whereas whole blood donations can only be made every 56 days.

With eight collection beds, the PLASMAVIE Plasma Donor Lounge in Trois-Rivières has reached cruising speed. The objective now is to attain 13,500 collections per year. To do this, Héma-Québec has begun the process of recruiting 650 new plasma donors.

## PLASMAVIE Plasma Donor Lounge in Trois-Rivières one year after opening



**1,056**  
DONORS



**7,300**  
DONATIONS



**7**  
DONATIONS  
PER DONORS

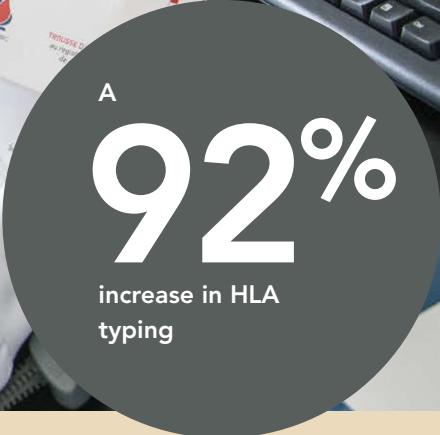


**267**  
APPOINTMENTS  
PER WEEK

# REFERENCE AND STEM CELL LABORATORY



Lai-Yee Wong, Technician at the Reference and Stem Cell Laboratory.



The Reference and Stem Cell Laboratory responds to many requests for phenotyped blood, erythrocyte or platelet immunology studies, erythrocyte genotyping studies and HLA typing.

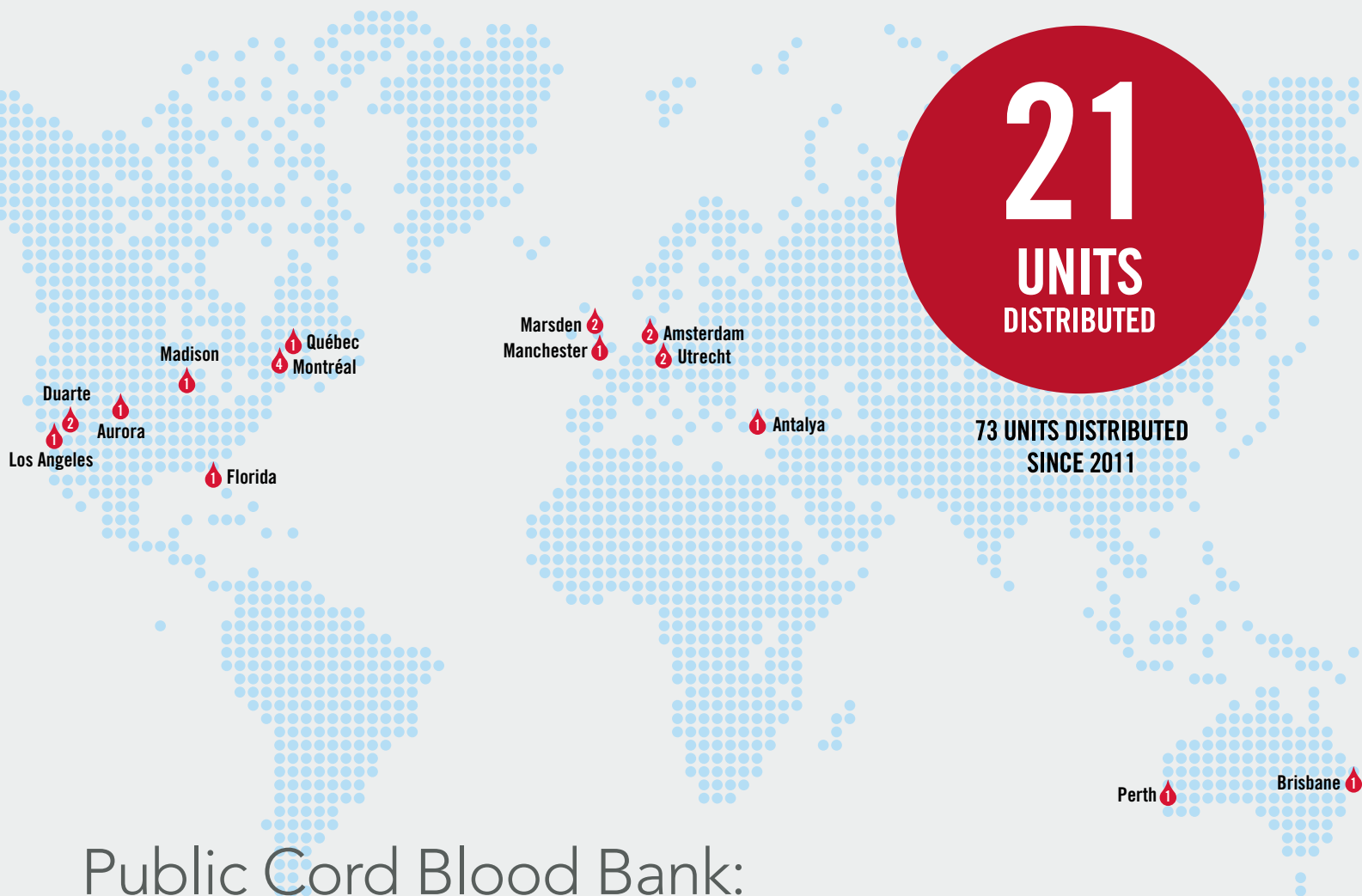
We have noted a 92% increase in HLA typing analyses, caused by the record increase in registrations with the Stem Cell Donor Registry. Requests for other tests remained relatively stable.

## NUMBER OF SPECIALIZED ANALYSES PERFORMED

	2010–2011	2011–2012	2012–2013	2013–2014	2014–2015
Erythrocyte immunology (patient cases)	1,435	1,654	1,342	1,430	1,550
Platelet immunology (patient cases)	374	394	383	483	461
Erythrocyte genotyping (patient cases)	3,488	4,574	4,721 (550)*	2,832 (588)*	548*
HLA A, B, C, DR, DQ typing	5,672	5,925	7,292	7,700	14,804

\* The number of erythrocyte genotyping analyses represents the genotypes tested for patient cases. Several genotypes can be tested for a given patient and, up to now, the genotyping analyses performed have varied based on the request. Starting this year, patient cases are tested using a new genotyping platform with systematic complete genotyping. In order to better reflect estimates, erythrocyte genotyping is also expressed in number of patient cases now.

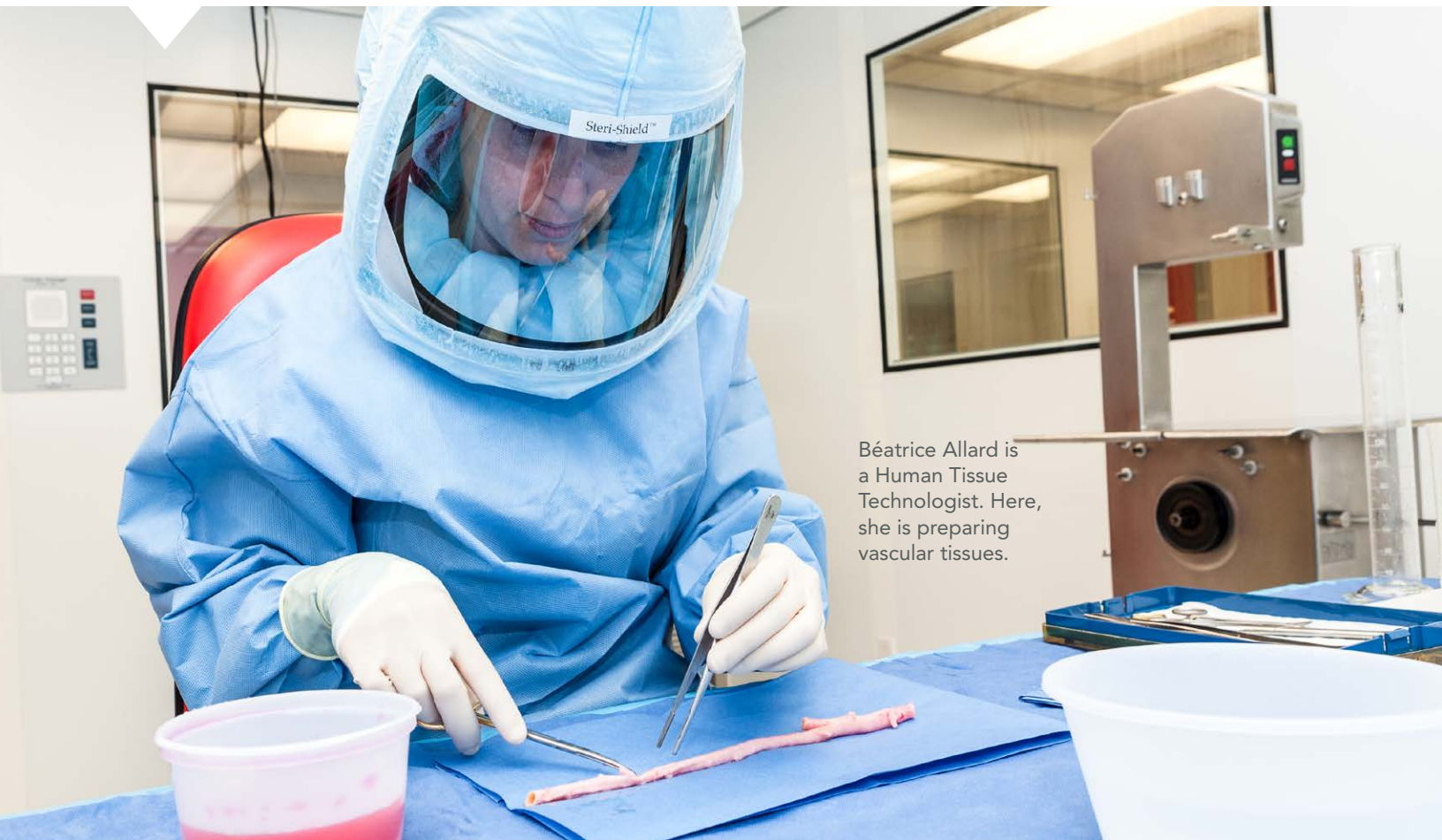




## Public Cord Blood Bank: Héma-Québec ranked 7<sup>th</sup> in the world

Héma-Québec's Public Cord Blood Bank is the first public bank of its kind operating in Canada. Its activities are developing at a sustained pace, both locally and internationally. At the end of 2014–2015, the Bank held 9,345 cords. Over the past year, Héma-Québec delivered 21 cord blood units, including five in Québec and 16 abroad.

According to the latest statistics from the World Marrow Donor Association (WMDA), Héma-Québec moved up from 11<sup>th</sup> to 7<sup>th</sup> in the world as a cord blood exporter based on the percentage of cords exported compared to the number of units in the bank.



Béatrice Allard is a Human Tissue Technologist. Here, she is preparing vascular tissues.

**The Héma-Québec Human Tissue Bank is the largest in Canada and ranks first in terms of volume and variety of grafts offered.**

## HÉMA-QUÉBEC'S ROLE AS A SUPPLIER OF HUMAN TISSUES

### ➤ RAISE AWARENESS

among the public and hospital stakeholders on the importance of recommending potential donors

### ➤ COLLECT

various tissues, while respecting the donor and their loved ones, and process them for an eventual transplant

### ➤ MEET THE NEEDS

of Quebecers by distributing human tissues safely to the various hospitals

# Human tissues in numbers

41

A cornea in its  
protective packaging.

Number of patients  
waiting for a corneal  
transplant reduced by

# 61%

FEBRUARY 2011

**704**  
PATIENTS



MARCH 2015

**278**  
PATIENTS

The average waiting  
time decreased from  
five years in 2011 to less  
than six months in 2015.

Viewing Chamber  
K55-57007-22  
**Krolman**  
Dor, MA 02129 USA

# 4,080

HUMAN TISSUES  
DISTRIBUTED

including

# 20%

to the  
other  
provinces  
in Canada



Among the tissues distributed

# 3,623

WERE MANUFACTURED  
BY HÉMA-QUÉBEC



The rest  
were  
imported



# 734

DONORS IN  
QUÉBEC

almost

# 97%

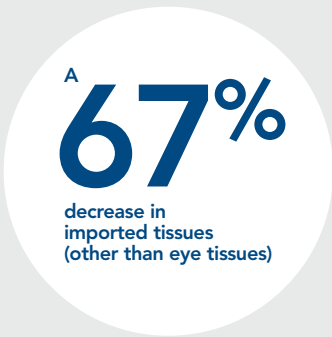
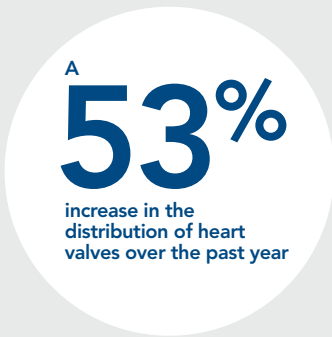
of whom donated  
corneas and other  
tissues



# Human tissue distribution

	2010–2011	2011–2012	2012–2013	2013–2014	2014–2015
Valve and vascular allografts	66	49	47	40	61
Skin tissues	1,632	1,322	1,231	1,340	1,090
Musculoskeletal tissues (tendons, bone chips, femoral heads)	867	923	1,281	1,292	1,371
Corneas	170	429	429	561	448
Sclera	0	79*	381	445	416
IMPORTS					
Imported human tissues	544	259	96	85	28
Imported corneas	429	257	306	249	337
Imported amniotic membranes	0	0	0	0	92*
Grand total	3,708	3,318	3,771	4,012	4,080

\*Corresponds to the year in which the distribution began.



After several years of excellent results, the distribution of local corneas decreased by 20% in 2014–2015. The situation returned to normal in December 2014. Nevertheless, Héma-Québec still provided a sufficient quantity of eye and other products to hospitals.



# RESULTS PERTAINING TO THE 2012–2015 STRATEGIC PLAN



Corinne Nadeau-Larochelle is a Research Assistant. Here, she is making plasminogen drops in the research and development laboratory.

To be a  
global model of  
**quality**

To be a Québec  
model of  
**efficiency**

To be a global  
model of  
**innovation**



## OBJECTIVE

## 1

# To be a global model of quality



## AREA OF FOCUS PROCESSES

### The quality system overhaul is ongoing

As part of a reflection process concerning the quality system overhaul, Héma-Québec continued its review of quality processes so as to better define the roles and responsibilities of the various stakeholders and optimize tools and training to support all departments.

An investigation program was implemented in the fall of 2014. It will determine the fundamental causes and the actions to be taken to reduce the number of non-compliances and product losses and to better respond to the expectations of the regulatory agencies. Particular attention will be paid to the most frequent non-compliances as well as to those that pose a higher risk. A non-compliance is noted as soon as there is a deviation from one of our procedures. A new database for tracking the various non-compliant events detected was implemented. Reports analyzing the statistical trends of these events may provide support for the investigators' work.

## OBJECTIVE

## 2

# To be a Québec model of efficiency



## AREA OF FOCUS PROCESSES

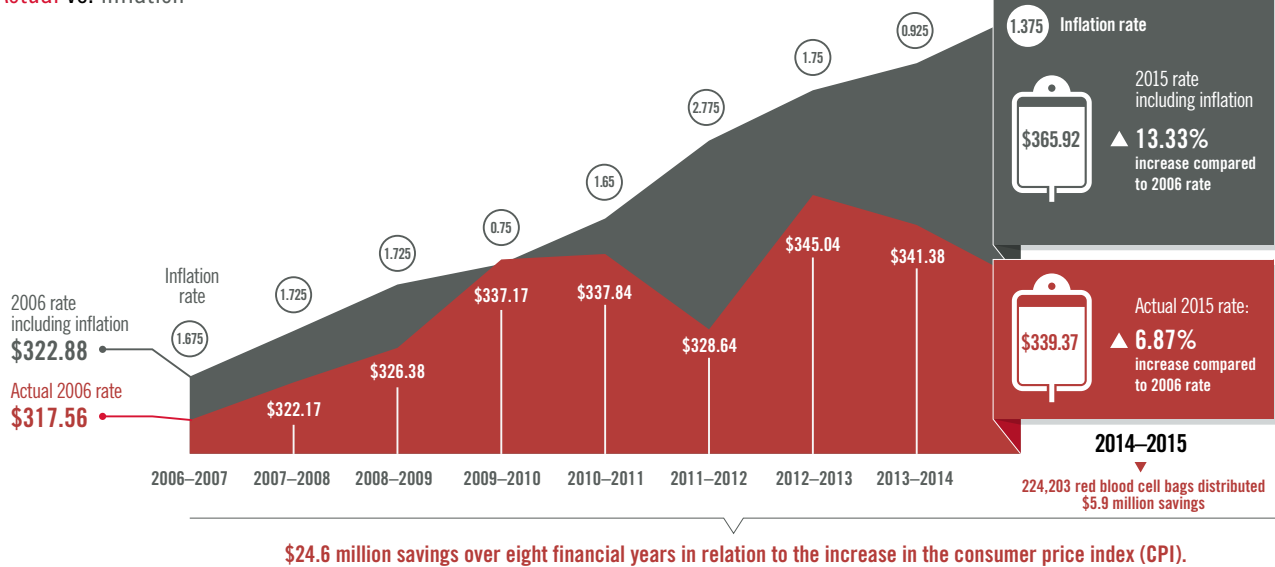
### Stabilization of fees after adjustments for inflation

Despite the current decrease in demand, Héma-Québec focuses a great deal of effort on fulfilling its mission to provide sufficient quantities of optimal quality products at the best price possible.

The attention devoted to increasing efficiency in order to keep the fee increases below inflation is producing significant results. The actual cost of red blood cells for 2014–2015 is \$339.37 compared to \$341.38 in 2013–2014. Improvements to practices and new measures also served to generate a surplus of a little more than \$1.7 million. Taking inflation into account, it now costs the health network 13.33% less to procure packed red blood cells than it did in 2006–2007.

## RED BLOOD CELLS: CHANGES IN RATES

Actual vs. inflation

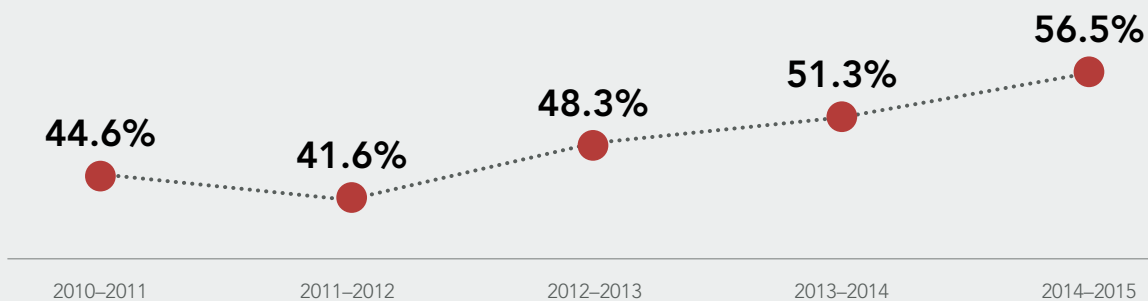


## Double platelet donations

Diversification of the types of donations allows Héma-Québec to achieve greater operating flexibility in the supply of blood components.

Double platelet donations are therefore favored and the number of donors who consent to it is increasing. This process allows for a double quantity of platelets to be collected from a single donor. In other words, it makes it possible to collect twice as many platelets for essentially the same cost. In 2014–2015, the 5.2% increase in the ratio of double donations compared to single donations generated savings of more than \$400,000. Héma-Québec intends to continue this strategy in the GLOBULE Blood Donor Centres.

Double platelet donations collected in the GLOBULE Centres



**1,804**

ADDITIONAL  
litres of plasma  
collected

## Plasma collections

Since 2009, it has been possible to make a platelet donation every 14 days in GLOBULE Blood Donor Centres, and to add a plasma donation every 56 days.

This is referred to as a “concurrent” plasma donation. Since June 2014, it has been possible to collect concurrent plasma during all platelet donations. This modification required a review of the process in order to apply the requirements applicable to frequent plasma donors to donors of platelets by apheresis.

In 2013–2014, 44.7% of platelet donations generated concurrent plasma, while this proportion increased to 81.8% in 2014–2015. As a result, we collected 1,804 additional litres of plasma, worth approximately \$410,000. The ultimate goal is to collect concurrent plasma during 90% of the platelet donations.

## PLASMAVIE: optimizing the donor recruitment process

The opening of the PLASMAVIE Plasma Donor Lounge in Trois-Rivières posed a challenge in terms of recruitment. We had to find people willing to donate more frequently.

More than one year after opening, the results are positive and indicate that the strategy adopted maximized the recruiting efforts, resulting in a positive impact on the frequency of donations made by donors.

In the past year, 31% of PLASMAVIE donors made eight or more donations compared to 18% of donors at the GLOBULE Centre where plasma collections are possible, but where the recruitment strategy differs. The average number of donations is therefore 6.7 per year at the PLASMAVIE, compared to 5.2 at the GLOBULE Centre. The recruitment strategy used at Trois-Rivières will be put to use in the PLASMAVIE Blood Donor Lounges that will open shortly.



## AREA OF FOCUS CULTURE

### To excel and innovate for better health

The accountability of each employee and efficient management are the cornerstones of the transformation of organization culture underway at Héma-Québec. The organization is promoting the emergence of a culture focused on excellence and continuous improvement, by adopting new practices.

The problem solving program was successful again during the past year. This program enables the teams to quickly determine the causes of problems and eliminate them at the source. The ideas generated and the solutions proposed translate into increased efficiency and quality, in addition to increasing employee motivation.

Other activities were undertaken and will serve to accelerate the implementation of the vision and culture change advocated in the 2012–2015 strategic planification, specifically the reflection concerning the new role of the manager with respect to the “blood drive of tomorrow” and the continuation of the leadership development fast track.

Lastly, the participation of employees in organization projects such as the *Salon interne de l’innovation* and the *Salon des meilleures pratiques d’affaires* also promotes a culture change conducive to innovation.

### To facilitate the implementation of the digital blood drive using the Kaizen method

The Kaizen method is still one of the management initiatives that promote continuous improvement and employee engagement. The major digital blood drive project was deployed in keeping with Kaizen principles.

The resulting process computerization will significantly increase the number of devices that will have to be transported and installed for mobile blood drives. The procedures for setting up and dismantling mobile blood drives were therefore revised by applying the principles of added-value production and determining the solutions that facilitate computer equipment deployment logistics. Based on the simulation performed, Héma-Québec expects a 20% reduction in the set-up time compared to the current procedure, despite the substantial increase in computer equipment used.

Lastly, the Kaizen method was also used to redefine blood donation procedure for mobile blood drives and in the donor centres. Each step was carefully studied and the operating procedure selected will result in increased team work, waiting times that are easier to estimate and increased diversification of tasks.





## Automation and computerization of processes

### SILAM at the erythrocyte immunology laboratory

Since 2011, various departments have been computerized through the deployment of the SILAM application, developed by Héma-Québec's teams.

The stem cell laboratory, the Stem Cell Donor Registry, the platelet immunology laboratory, the Human Tissue Bank and the Public Mothers' Milk Bank use this application. In 2014–2015, the final phase in the deployment of the application was completed in the erythrocyte immunology laboratory and almost all of its activities are now computerized. In addition to enhancing the traceability and safety of the tests performed, deployment of this application has also generated a significant reduction in identification errors and a 10% reduction in the time required for the transmission of test reports. Communication and follow-ups between the various laboratories related to tests under way were also improved considerably.

### Added value of online learning

Since December 2014, Héma-Québec employees can take training offered on a new online learning management platform.

Training courses presented to a large number of individuals and whose content does not change much over time are significantly more efficient. This platform provides greater flexibility in terms of employee availability and reduces the travel and logistical costs associated with conventional training activities.

The courses offered at Héma-Québec will be evaluated from now on to determine the pertinence and feasibility of offering them online. They will be complemented by traditional courses taught in a classroom.

In anticipation of upcoming major technological changes in blood drives, 17 training sessions broken down into more than 200 units were developed to cover the entire process. This platform was essential to deploying all of the training sessions required to introduce the new version of the computer system. Mixed training sessions, offered in the classroom and online, were complemented by a skill integration day, which involved a blood drive simulation and the transfer of knowledge in a context of cooperation and team work and gave the manager an opportunity to exercise his role and his leadership in this new work context.

Brigitte Martin,  
Blood Drive Technical  
Assistant, welcomes a  
donor.

<sup>A</sup>  
**20%**

reduction in the number  
of hours worked per  
product collected since  
2010–2011

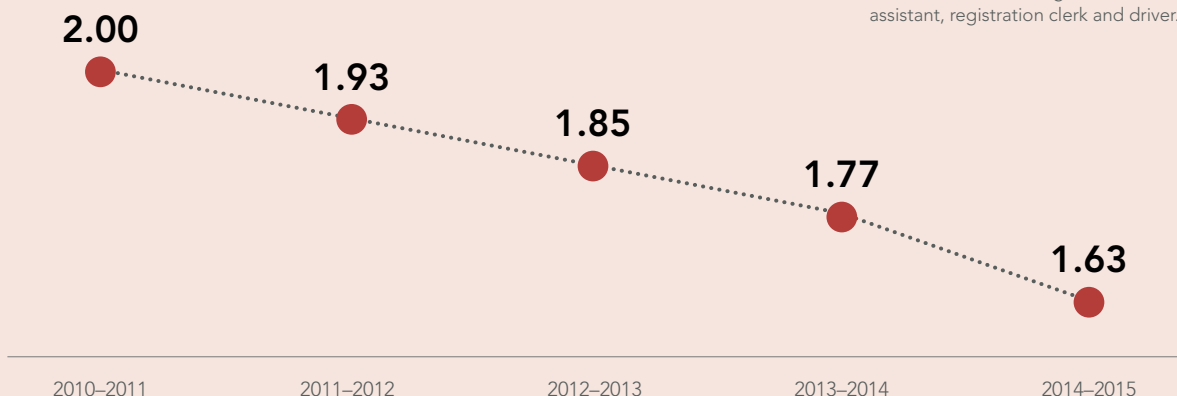
## Workforce flexibility

In the fall of 2014, all of the unions affected by workforce flexibility signed an agreement on this matter.

The last agreement signed deals primarily with organization of the work performed by blood drive personnel. It includes a provision concerning the new work methods promoting the sharing of tasks and demonstrating the importance of team work. It enables Héma-Québec to continue its efficiency projects in keeping with the organization's strategic plan, in addition to facilitating the deployment of eProgesa.

Apart from the signing of letters of understanding with all the unions affected by workforce flexibility at blood drives, other projects include the opening of a mobile blood drive regional centre on the South Shore, implementation of the new job title of blood drive agent, and other efforts related to workforce versatility. Moreover, the number of hours worked per product collected decreased significantly, i.e., by close to 20% since 2010–2011, and the update of the system that controls blood management activities reflects the efforts made in this respect in recent years. Héma-Québec intends to continue this progress and achieve a rate of 1.25 hours per product collected.

### Number of hours worked per product collected in mobile blood drives and GLOBULE Centres



The graph opposite illustrates the number of hours worked per product collected in a mobile blood drive and in GLOBULE Blood Donor Centres for the following five employment types: nurse, blood donation collection agent, blood drive technical assistant, registration clerk and driver.

## OBJECTIVE

## 3

# To be a global model of innovation



## AREA OF FOCUS PROCESSES


### Innovations in research and development

#### A therapeutic solution for graft versus host disease

In 2014–2015, Héma-Québec developed a process to produce therapeutic doses of mesenchymal stem cells (MSCs) extracted from umbilical cords for treating graft versus host disease (GvHD).

This disease occurs when the immune cells present in the graft react against the tissues and organs of the recipient (host). MSCs have immunosuppressive properties that make them appealing for treating immune system disorders such as GvHD. This cell production project was started following the signing of a partnership agreement with the *Centre hospitalier universitaire Sainte-Justine*. Therapeutic doses will be produced in the white rooms of the *Institut national d'optique* (INO) in accordance with good manufacturing practices (GMP). The purpose of the project is to produce these doses as part of a four-year clinical study.



A photograph of a woman with long dark hair and a young boy with dark hair, both looking towards the camera. They are sitting at a table with various toys, including a red toy car and a green toy figure. The woman is wearing a black top, and the boy is wearing a plaid shirt. The background is a solid blue color.

Héma-Québec researchers saved the vision of little Étienne, shown here with his mother Audrey Lepage.

## Plasminogen: from protocol to treatment plan

Two years ago, Héma-Québec developed eye drops from plasminogen, a protein obtained from plasma, to be used in the treatment of ligneous conjunctivitis. This is a very rare eye disease affecting patients with a plasminogen deficiency.

In the past year, the organization continued production of these drops and the treatment plan in order to maintain the prolonged remission of a young patient in Québec. Héma-Québec not only contributed to saving the boy's vision but it also made up for the absence of treatments available in Canada. This personalized medicine is part of Héma-Québec's mission to develop and offer expertise as well as specialized and innovative services in the field of biological products of human origin. The organization's experience in quality, safety and the development of products for patients with specific needs was put to use to meet the needs of the young patient. This accomplishment was recognized by an award presented at the *Prix Innovation 2014 of the Association pour le développement de la recherche et de l'innovation du Québec* in the innovation-product category.



## Partnerships in innovation for better health

Marie-Ève Nolin, Research Assistant, at the research and development laboratory.

With a view to being a partner and a leading test bench in matters of cell production, Héma-Québec contributes to a growing number of initiatives that promote innovation in Québec's health sector.

Cord blood stem cells are of particular interest for transplant purposes since they are the youngest, and compatibility is therefore easier to establish. However, the quantity of stem cells contained in cord blood is generally insufficient for an adult transplant.

The UM171 molecule developed by researchers at *Université de Montréal* stimulates stem cell multiplication, which could ultimately make cord blood stem cell transplants possible for more patients. As part of a study by *Université de Montréal* to evaluate the expansion conditions for hematopoietic stem cells, Héma-Québec provided 202 cord blood units in 2014–2015, for a total of close to 400.

Héma-Québec also contributed to a major study conducted by the *Centre hospitalier de l'Université de Montréal* research centre, the *Centre hospitalier universitaire Sainte-Justine* research centre, the Ottawa Hospital and the Canadian Critical Care Trials Group. Entitled ABLE, the study deals with the controversial subject of the age of red blood cells. The results showed that blood collected over three weeks ago has the same properties as blood collected only a few days ago. This study refuted the previously reported results according to which fresh blood was better for critically ill patients. Héma-Québec is proud to have contributed to this study by providing blood products.

Lastly, the organization continued its partnership with the American firm OPEXA Therapeutics as part of a clinical study on multiple sclerosis. The purpose of the study is to develop a medication manufactured from autologous blood products (coming from patients themselves), to slow the progress of the disease. For each patient participating in the study, Héma-Québec collected blood and sent it to OPEXA Therapeutics. The company uses the patients' blood to manufacture the medication, which is then injected into them.





## Cell production: growing expertise


In addition to developing its expertise in cell production, Héma-Québec continued preparations for construction of the C·LAVIE complex, which included finalizing the plans and specifications.

This complex will make up for the lack of industrial cell production capacity in Québec in order to distribute biological medications on a larger scale. Héma-Québec is offering its expertise in the production of human-derived biological medications and its scientific and regulatory know-how to Québec stakeholders, complementing the efforts of Québec and Canadian researchers, and for the benefit of patients.

Until the C·LAVIE complex is built, Héma-Québec has signed an agreement with the *Institut national d'optique* (INO) to use its white rooms to manufacture biotherapeutic products in a highly controlled environment. The organization also continued to hire qualified personnel to enable it to achieve its research and development objectives in terms of cell production.

Among the projects carried out over the past year, Héma-Québec completed its first mandate with its European partner Cell for Cure for a feeder cell comparability study supporting the production of T lymphocytes, a variety of white blood cells that play an important role in the immune system. The objective was to determine the cell production conditions involved in the manufacturing process for a biological medication that could be used to treat cancer.

Moreover, Héma-Québec took part in obtaining a subsidy from the Government of Québec for a major project that will improve the treatment provided to major burn victims: the production of autologous bilamellar reconstructed skin (ABRS). Héma-Québec will use the technology developed by the *Laboratoire d'organogénèse expérimentale* (LOEX) to optimize the manufacturing process and begin large-scale production in accordance with good manufacturing practices (GMP), all for the benefit of Québec patients. At present, few treatments are available to major burn victims, and those that exist are associated with a serious reaction risk. Since it is produced from cells from the skin of the patient to be treated, this reconstructed skin would considerably reduce the risk of rejection following the graft.



Tony Tremblay, Automated Systems Specialist, at the cell production laboratory.

An increase of more than

**35%**

in capital asset investments compared to the previous strategic plan

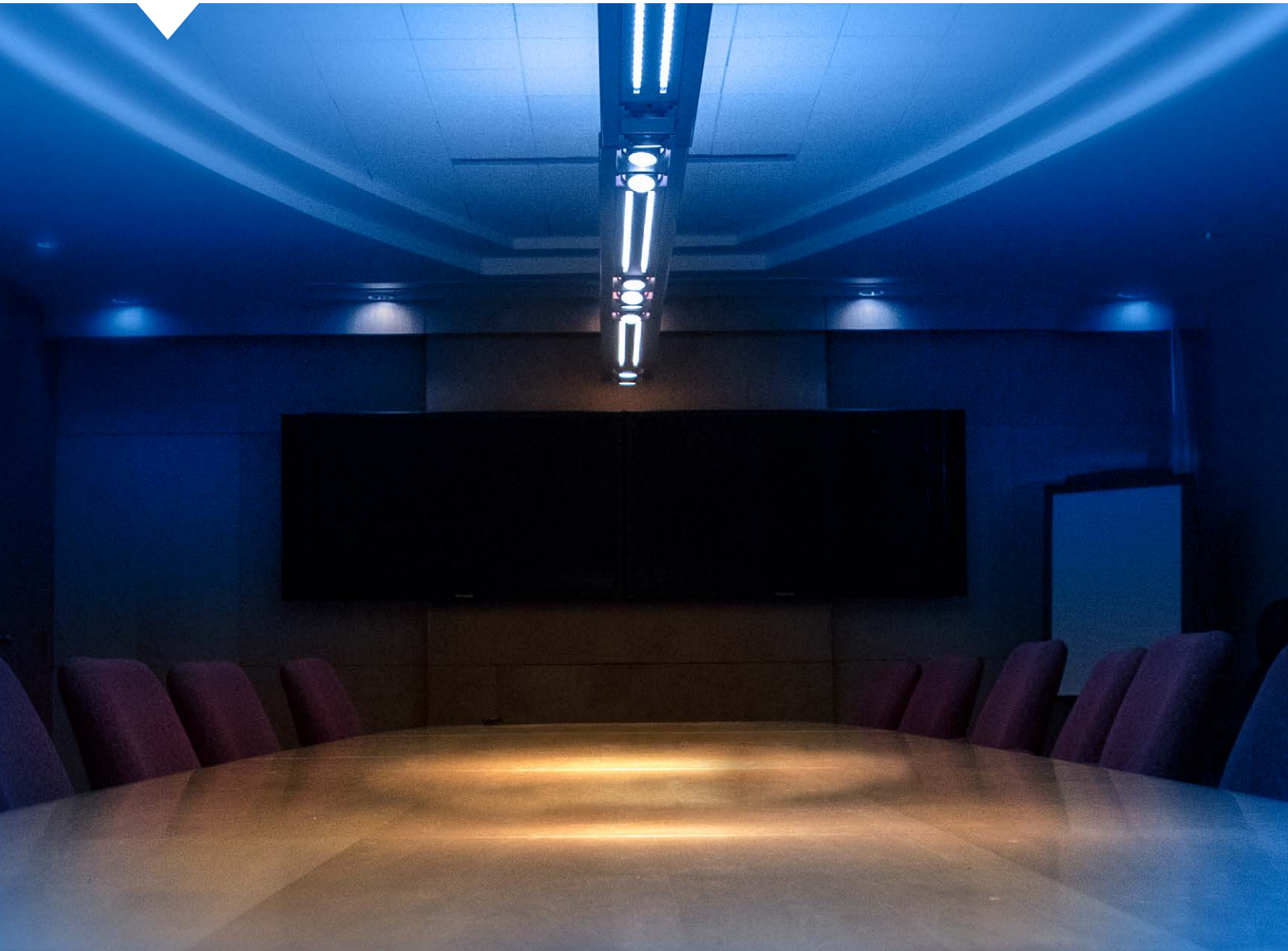
## Increase in investment and innovation budgets

Capital asset investments totalled \$10.1 million for the past year. Major investments included the digital blood drive project (updating of the eProgesa software), and investments related to the PLASMAVIE-GLOBULE centre in Saguenay.

For the period covering the implementation of the 2012–2015 strategic plan, this represents an increase of more than 35% compared to the previous strategic plan, confirming the importance placed on the fulfillment of the strategic plan and the investments required as a result.

Lastly, it should be noted that the objective set in the strategic plan with regard to the research and development budget was to increase investments. Until recently the portion allocated for research was limited to 5% of the budget for labile product activities. This portion has been increased to 5% of the total budget for labile products, human tissues and stem cells. By doing so, Héma-Québec is reiterating the importance of strategic investments in research, which spearheads innovation in life sciences.

# ADMINISTRATION



Board of  
Directors

Board  
Committees

Advisory  
Committees

# Activities and structure of the Board of Directors

## 2014–2017 supply strategy

Last October, the Board of Directors approved the supply strategy covering the period from 2014 to 2017. In this strategy, Héma-Québec reiterates the importance of focusing on increasing the collection of plasma to reach the objective of 200,000 litres per year in 2019.

## Changes in management

2014–2015 was marked by the departure of Jean De Serres, who had served as President and Chief Executive Officer since April 1, 2011.

Following his departure, the Board of Directors appointed Smaranda Ghibu, Vice-President, Corporate Affairs, as acting President and Marco Décelles, Vice-President and Chief Operating Officer, as acting Chief Executive Officer. At the same time, the Board of Directors quickly took steps to recruit a President and Chief Executive Officer. The selection process was almost complete by the end of the year. One of the first mandates of the new President and Chief Executive Officer will be to continue the work started to determine the objectives of the next strategic plan.



## Cell production

The cell production deployment strategy underwent a major revision.

In particular, an update was requested by the Board of Directors to be able to adequately support this large-scale project. Lastly, discussions were initiated with the partners to ensure optimum synergy among the various stakeholders.

## Procurement of plasma products

The Board of Directors authorized Héma-Québec to negotiate an agreement with the South Korean company Green Cross for the fractionation and supply of plasma products (intravenous immunoglobulin–IVIg, and albumin).

Since none of the current IVIg suppliers has a plasma fractionation plant in Canada, this major investment in the life sciences sector is being made to ensure the safety of the supply. Héma-Québec has agreed, along with government representatives, that the presence of an IVIg supplier in Canada is a factor that will certainly reduce the potential risks related to the supply. For the economy of Québec, this project also represents a decisive investment by an international company that will energize the critical life sciences sector.

## Structure of the Board of Directors

Mr. Pierre-Yves Desbiens, recommended by the *Ordre des comptables professionnels agréés du Québec*, was appointed to serve on the Board as a director by the Government of Québec in February 2015.

Moreover, the Governance and Ethics Committee continued its efforts with groups and associations in order to receive the files of candidates corresponding to the skill profiles sought and established by the Board of Directors. The next step in the process is to submit these files to the government in order to fill certain vacancies on the Board and replace a few members. The role of the Governance Committee is to propose candidates in order to maintain a proper balance of experience and expertise on the Board based on the organization's activities as well as ensure the representation of the various groups pursuant to the *Act respecting Héma-Québec and the biovigilance committee*.

## Risk management

The review of Héma-Québec's risk management policy is complete.

The risk management matrices, used to determine the gravity and frequency of risks, have been enhanced. Also, the revised policy will further clarify the relationship between the risks, the mission and the strategic objectives. These changes to the policy were presented to the Safety Advisory Committee and the Recipient Representatives Advisory Committee.



BOARD OF DIRECTORS	
Categories represented	Members
RECIPIENTS	<p><i>Chair</i>  <b>Martine Carré</b>  Corporate Director  Leucan Member</p>
PUBLIC HEALTH	<p><i>Vice-Chair</i>  <b>Michèle Beaupré Bériau</b>  Secretary General  <i>Institut national de santé publique du Québec</i></p>
HÉMA-QUÉBEC	<p><i>Acting Secretary</i>  <b>Smaranda Ghibu Atty</b>  Acting Chair  Héma-Québec</p>
BUSINESS COMMUNITY	<p><b>Christine Beaubien</b>  Corporate Director  President, <i>Groupe BSC</i></p>
ASSOCIATION QUÉBÉCOISE D'ÉTABLISSEMENTS DE SANTÉ ET DE SERVICES SOCIAUX (AQESSS)	<p><b>René Carignan, CPA, CA</b>  Financial and Tax Consultant</p>
	<p><b>Lucie Letendre, CPA, CGA</b>  Associate Executive Director of General and Specialized Physical Health Programs and Support for Seniors' Independence (SAPA),  <i>Centre intégré universitaire de santé et de services sociaux de la Mauricie-et-du-Centre-du-Québec</i></p>
COLLÈGE DES MÉDECINS DU QUÉBEC	<p><b>Dr. Annie Lagacé</b>  Anesthesiologist  <i>Hôpital du Sacré-Cœur de Montréal</i></p>
	<p><b>Dr. Jean-Marie Leclerc</b>  Hematologist-oncologist  <i>Centre hospitalier universitaire Sainte-Justine</i></p>
SCIENTIFIC RESEARCH COMMUNITY	<p><b>Dr. Serge Montplaisir</b>  Full Professor, Department of Microbiology and Immunology  <i>Université de Montréal</i></p>
	<p><b>Dr. Patricia Pelletier</b>  Assistant Professor, Department of Medicine  McGill University</p>
DONORS AND VOLUNTEERS	Vacant
BIOVIGILANCE COMMITTEE OBSERVER	<p><b>Anna Urbanek</b>  Nurse Clinician, monitoring and protection sector  <i>Direction de la santé publique, Agence de la santé et des services sociaux de Montréal</i></p>
ORDRE DES COMPTABLES PROFESSIONNELS AGRÉÉS DU QUÉBEC	<p><b>Pierre-Yves Desbiens, CPA, CA</b>  Vice-President, Finance and Administration  NEOMED Institute</p>

## EXECUTIVE COMMITTEE

**Martine Carré**, Chair of the Board of Directors

**Michèle Beaupré Bériau**, Vice-Chair of the Board of Directors

**Smaranda Ghibu Atty**, Acting Secretary of the Board of Directors

**René Carignan, CPA, CA**, Director

**Dr. Patricia Pelletier**, Director

## GOVERNANCE AND ETHICS COMMITTEE

**Michèle Beaupré Bériau**, President

**Martine Carré**

**Dr. Annie Lagacé**

## AUDIT COMMITTEE

**René Carignan, CPA, CA**, President

**Christine Beaubien**

**Lucie Letendre, CPA, CGA**

**Dr. Serge Montplaisir**

## HUMAN RESOURCES AND COMPENSATION COMMITTEE

**Martine Carré**, President

**Christine Beaubien**

**Dr. Jean-Marie-Leclerc**

**Lucie Letendre, CPA, CGA**

**Dr. Serge Montplaisir**

## INFORMATION RESOURCES COMMITTEE

DIRECTOR MEMBERS	<b>Christine Beaubien</b> , President
	<b>Martine Carré</b>
	<b>René Carignan, CPA, CA</b>
EXTERNAL MEMBERS	<b>Michèle Bureau</b> Consultant, Information Technology and Electronic Affairs <i>Bureau et Associés Inc.</i>
	<b>Robert Charbonneau</b> Advisor, Information Technology
	<b>Pierre Montminy</b> Senior Advisor Responsible for IT practices, <i>E3 Services Conseils</i>

RECIPIENT REPRESENTATIVES ADVISORY COMMITTEE	
Fields represented	Members
COCQ-SIDA	<i>Chair</i> <b>Michel Morin</b>
ASSOCIATION DES PATIENTS IMMUNODÉFICIENTS DU QUÉBEC	<b>Martine Allard</b>
	<b>Jacques Dagnault</b>
CANADIAN HEMOPHILIA SOCIETY, QUÉBEC BRANCH	<b>Marius Foltea</b>
	<b>Pascal Mireault</b>
CANADIAN TRANSPLANT ASSOCIATION	<b>Gaston Martin</b>
ASSOCIATION D'ANÉMIE FALCIFORME DU QUÉBEC	<b>Delano George</b>
	<b>Wilson Sanon</b>
LEUCAN	<b>Pierre Verret</b>
MUSCULAR DYSTROPHY CANADA, QUÉBEC REGION	<b>Pascale Rousseau</b>
BOARD OBSERVERS	<b>Dr. Annie Lagacé</b>
	<b>Martine Carré</b>

## SAFETY ADVISORY COMMITTEE

Fields represented	Members
PUBLIC HEALTH	<p><i>Chair</i>  <b>Dr. Bryce Larke</b>  Virologist  Virology, ProvLab, Edmonton, Canada</p>
INFECTIOUS DISEASES	<p><b>Dr. Susan Stramer</b>  Vice-President of Scientific Affairs, Biomedical Services  American Red Cross, Gaithersburg, United States</p>
EPIDEMIOLOGY	<p><b>Dr. Steven Kleinman</b>  Biomedical Consultant  Victoria, Canada</p>
TRANSFUSION MEDICINE AND PRACTICES	<p><b>Dr. Luiz Amorim</b>  President and Chief Executive Officer  Hemorio, Rio de Janeiro, Brazil</p>
	<p><b>Dr. Georges Andreu</b>  Honorary Member  <i>Institut national de la transfusion sanguine, Paris, France</i></p>
	<p><b>Dr. James P. Aubuchon</b>  President and Chief Executive Officer  Bloodworks Northwest, Seattle, United States</p>
	<p><b>Dr. Louis M. Katz</b>  Chief Medical Officer  America's Blood Centers, Washington, United States</p>
	<p><b>Dr. Hans L. Zaijjer</b>  Professor  Sanquin Blood Supply Foundation, Academic Medical  Centre, Amsterdam, Netherlands</p>
TISSUES	<p><b>Dr. Reinhard Henschler</b>  Head  Department of Transfusion Medicine, Cell Therapeutics  and Hemostaseology  University Hospital, Munich, Germany</p>
	<p><b>Dr. Douglas Michael Strong</b>  Research Professor  Department of Orthopedics and Sports Medicine and  Department of Surgery  University of Washington School of Medicine  Seattle, United States</p>
CANADIAN BLOOD SERVICES	<p><b>Dr. Margaret Fearon</b>  Medical Director, Medical Microbiology  Canadian Blood Services, Toronto, Canada</p>
PUBLIC REPRESENTATIVE	<p><b>David Page</b>  Executive Director  Canadian Hemophilia Society, Montréal, Canada</p>
REPRESENTATIVE OF THE RECIPIENT REPRESENTATIVES ADVISORY COMMITTEE	<p><b>Marius Foltea</b>  Canadian Hemophilia Society, Québec branch  Montréal, Canada</p>
BOARD OBSERVER	<p><b>Dr. Patricia Pelletier</b>  Assistant Professor, Department of Medicine  McGill University, Montréal, Canada</p>

## SCIENTIFIC AND MEDICAL ADVISORY COMMITTEE

Fields represented	Members
IMMUNOLOGY	<p><i>Chair</i>  <b>Yves St-Pierre</b>  Full Professor  INRS - Institut Armand-Frappier, Laval, Canada</p> <hr/> <p><b>Srini V. Kaveri</b>  Director, Immunopathology and Therapeutic Immunointervention  <i>Centre de Recherche des Cordeliers</i>  Équipe 16 - INSERM - U 1138, Paris, France</p>
DIAGNOSTIC TECHNOLOGY	<p><b>Michel Houde</b>  Senior Consultant, Medical Device Certification and Management Support  MMA Group (MMA Certification), Montréal, Canada</p>
TRANSFUSION MEDICINE	<p><b>Dr. Jean-François Hardy</b>  Anesthesiologist  <i>Centre hospitalier de l'Université de Montréal</i></p> <hr/> <p>Full Professor, Anesthesiology Department  <i>Université de Montréal, Montréal, Canada</i></p> <hr/> <p><b>Dr. Vincent Laroche</b>  Hematologist and Blood Bank Director and Associate Director of Clinical Research  <i>Centre hospitalier affilié universitaire de Québec</i></p> <hr/> <p>Hematologist and Blood Bank Director  <i>Institut universitaire de cardiologie et pneumologie de Québec, Québec, Canada</i></p>
BIOTECHNOLOGY	<p><b>Bernard Massie</b>  Director Bioprocess Centre, National Research Council of Canada (Biotechnology Research Institute)  Montréal, Canada</p>
INDUSTRIAL RESEARCH	<p><b>Denis Riendeau</b>  Executive Director  Inception Sciences Canada, Montréal, Canada</p>
HEMATOPOIESIS	<p><b>Julie Audet</b>  Assistant Professor  Associate Director  Institute of Biomaterials and Biomedical Engineering  University of Toronto, Toronto, Canada</p>
CANADIAN BLOOD SERVICES	<p><b>William P. Sheffield</b>  Associate Director, Research and Principal Investigator  Centre for Innovation, Canadian Blood Services  Ottawa, Canada</p> <hr/> <p>Professor, Pathology and Molecular Medicine  McMaster University, Hamilton, Canada</p>
REPRESENTATIVE OF THE RECIPIENT REPRESENTATIVES ADVISORY COMMITTEE	<p><b>Marius Foltea</b>  Canadian Hemophilia Society, Québec branch  Montréal, Canada</p>
HÉMA-QUÉBEC BOARD OF DIRECTORS OBSERVER	<p><b>Dr. Serge Montplaisir</b>  Full Professor, Department of Microbiology and Immunology  <i>Université de Montréal, Montréal, Canada</i></p>



## CELL AND TISSUE PRODUCTION ADVISORY COMMITTEE

### Members

*Chair*

**Dr. François Auger**

Director

*Centre LOEX de l'Université Laval, Québec, Canada*

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**Dr. Amit Bar-Or**

Professor, Neurology and Neurosurgery

Director, Experimental Therapeutics Program

Scientific Director, Clinical Research Unit

Montreal Neurological Institute and Hospital, Montréal, Canada

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**Dr. Elie Haddad**

Full Professor

Department of Pediatrics, Department of Microbiology, Infectiology and Immunology

*Université de Montréal*

Head of Pediatric

Immunology, rheumatology and allergology

*Centre hospitalier universitaire Sainte-Justine, Montréal, Canada*

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**Dr. Jacques Galipeau**

Professor, Hematology and Medical Oncology, Pediatrics and Medicine

Emory University/Winship Cancer Institute, Atlanta, United States

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**Dr. Réjean Lapointe**

Full Professor

Department of Medicine, Faculty of Medicine

*Université de Montréal*

*Centre de recherche du CHUM, Institut du cancer de Montréal (ICM)*

Montréal, Canada

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**Christiane Maroun**

Associate Director, Partnerships and Strategic Initiatives

Rosalind and Morris Goodman Cancer Research Centre, McGill University, Montréal, Canada

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**Dr. Denis-Claude Roy**

Scientific Director

*Centre d'excellence en thérapie cellulaire (CETC)*

*Hôpital Maisonneuve-Rosemont, Montréal, Canada*

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## RESEARCH ETHICS COMMITTEE

Fields represented	Members
LAW	<b>Geneviève Cardinal Atty</b> Research Ethics Committee <i>Centre hospitalier universitaire Sainte-Justine</i> Montréal, Canada
LAW, SUBSTITUTE LEGAL EXPERT	<b>Mélanie Champagne Atty</b> Borden Ladner Gervais Montréal, Canada
RESEARCH FIELD SPECIALISTS	<i>Chair</i> <b>Clermont Dionne</b> <i>Centre de recherche du CHU de Québec</i> Population Health and Optimal Health Practices Québec, Canada
	<b>Michel Vincent</b> Institute for Integrative Systems Biology <i>Université Laval</i> , Québec, Canada
	<b>Jacques J. Tremblay</b> <i>Centre de recherche du CHU de Québec</i> Ontogeny and reproduction, Québec, Canada
BLOOD DONORS	<b>Pierre McDuff</b> Association of Blood Donation Volunteers Montréal, Canada
RECIPIENT REPRESENTATIVES ADVISORY COMMITTEE, ETHICIST	<b>Michel Morin</b> <i>COCQ-Sida</i> , Montréal, Canada
SUBSTITUTE ETHICIST	<b>Johane de Champlain Atty</b> <i>Fonds de recherche du Québec – Santé</i> Montréal, Canada

## Management Committee



**Smaranda Ghibu, BCL, LLB**

*Vice-President, Corporate Affairs  
Acting Chair*

*Acting Vice-President, Quality  
and Regulatory Affairs*



**Marco Décelles, CPA, CMA**

*Vice-President and Chief  
Operating Officer*

*Acting Chief Executive Officer*



**Yves Blais, PhD, MBA**

*Vice-President, Research  
and Development*



**Roger Carpentier, CRIA**

*Vice-President, Human Resources*



**Simon Fournier, DEC**

*Vice-President, Information  
Technology*



**Guy Lafrenière, CPA, CMA, MBA**

*Vice-President, Administration  
and Finance*



**Marc Germain, MD, PhD**

*Vice-President, Medical Affairs,  
and Medical Director, Human Tissues*



# LEGISLATIVE REQUIREMENTS

## Compliance with laws

The laws, regulations or policies that include accountability obligations for the Héma-Québec annual report are:

- the *Sustainable Development Act*;
- the *Regulation respecting the distribution of information and the protection of personal information*;
- the *Act respecting workforce management and control within government departments, public sector bodies and networks and state-owned enterprises*;
- the *Act respecting the Ministère du Conseil exécutif*, which provides for the publication of the director code of ethics and cases handled under this code;
- the *Act to implement certain provisions of the Budget Speech of 30 March 2010, reduce the debt and return to a balanced budget in 2013–2014* – better known as Bill 100, which is still in force;
- the *Policy for the funding of public services*;
- the *Policy on the use and quality of French within the government*.



# Sustainable Development Act

In order to comply with the legal requirements stated by the Government of Québec in its *Government Sustainable Development Strategy* and to contribute to improving the well-being, health and quality of life of the people of Québec, Héma-Québec continued the implementation of its strategic plan in 2014–2015.

## Government objective 1

**Make people increasingly aware of the sustainable development concept and principles. Promote knowledge and experience sharing in this area and assimilate knowledge and know-how facilitating its implementation.**

Awareness-raising activities for the personnel:

- › sustainable development awareness-raising campaign;
- › training on taking the 16 sustainable development principles into account, offered on the intranet.

## Government objective 4

**Continue developing and promoting a culture of prevention and define conditions that are beneficial for health, safety and the environment.**

Following measures reiterated:

- › promotion of physical activity through the *Policy concerning the partial reimbursement of physical*

*activities* practiced by the employees and payment of registrations for sports events;

- › annual flu vaccination program for employees;
- › ergonomic assessments of workstations;
- › creation and distribution of tools promoting a culture of prevention on the intranet.

## Government objective 6

**Apply environmental management measures and an ecoresponsible procurement policy to departments and government agencies.**

**Identify potential markets in which sustainable development criteria can be applied and use these criteria in calls for tenders and in the marketplace.**

Maintenance of actions taken to integrate sustainable development criteria into all of Héma-Québec's activities, specifically:

- › sustainable development clauses in contracts and calls for tenders, when applicable;
- › acquisition and use of recycled supplies favored.





# Sustainable Development Act

## Government objective 7

**Promote reduction in the amount of energy, natural resources and materials used to produce and market goods and services.**

Héma-Québec continued to collect email addresses from donors in order to increase electronic communications and reduce the use of paper.

New:

- › launch of paperless online training (see page 49);
- › donor surveys conducted electronically rather than by mail, reducing the use of paper and the cost of postage.

## Government objective 14

**Focus on family life and facilitate the balance between work, school and personal life.**

Héma-Québec maintained the *Policy reconciling work and personal life*, providing greater flexibility in the organization of work time.

## Government objective 24

**Increase citizens' involvement in their community.**

Continued awareness-raising efforts in collaboration with the Association of Blood Donation Volunteers, specifically in cegeps and universities, corporations and during various events. Maintaining the number of active volunteers at blood drives and in all of Héma-Québec's activities also remains a priority.

## Objective 5 of Québec's Agenda 21 for Culture

**Foster cultural development among citizens as well as access to and participation in cultural activities. Encourage amateur cultural activities and cultural mediation. Include citizens in the cultural policy development process at all levels. Treat cultural activities as an opportunity for learning and building citizenship.**

**New: Photo exhibit**

A photo exhibit was organized with the participation of 14 employees, some of whom had participated in the introductory photography workshops offered the previous year at Héma-Québec. The photos were exhibited at the Montréal and Québec City facilities.

**New: Japanese book binding workshop**

In 2014–2015, Japanese book binding workshops were offered to Héma-Québec's employees during their meal breaks. Japanese book binding is practiced in the Far East. It requires very little cutting and glue and is done with thread. A fan of this art made his knowledge available to colleagues who wanted to learn the basics of this type of binding.



# Regulation respecting the distribution of information and the protection of personal information

Pursuant to section 4 of the *Regulation respecting the distribution of information and the protection of personal information*, Héma-Québec attests to having published the required documents or information on its Web site.

## Requests for access to information

Seven requests for access to information and/or documents held by Héma-Québec and five requests for access or rectification to personal information were received between April 1, 2014, and March 31, 2015. All of the requests were handled within the time frame prescribed in the *Act respecting access to documents held by public bodies and the protection of personal information*. Of these requests, six were accepted, three were partially accepted in order to protect the personal information of a third party and three were refused.

## Information Security Committee

The Information Security Committee (ISC) provides support for information security management and coordination activities, specifically by monitoring the measures put in place to ensure the integrity, security and confidentiality of the information collected and held by Héma-Québec. In accordance with the *Regulation respecting the distribution of information and the protection of personal information*, the persons in

charge of information security, access to information and personal information, and document management sit on the committee.

In the past year Héma-Québec conducted hacking tests to validate the security of its equipment. Among the tests performed, some were intended to guarantee the secure nature of the new process that will be implemented with eProgesa, including reliability of the encrypting of USB keys and SD cards that will be used for mobile blood drives. As part of the financial audit, the organization also underwent verification of various controls related to major financial applications, including general controls over information technologies, and no observations were made.

A new *Cadre gouvernemental de gestion de la sécurité de l'information* was adopted by the *Conseil du trésor* in the past year and it applies to Héma-Québec. The person in charge of information security was appointed the organizational head of information security. As required by the *Conseil du trésor*, an information security optimization committee was established to implement measures to improve our computer security. The risk analysis is underway and the ISC will focus on the highest risks first.

Lastly, the ISC is continuing its analysis of cloud computing to establish Héma-Québec's position with regard to the various solutions available and the criteria to meet in order to properly manage it.



# Act respecting workforce management and control within government departments, public sector bodies and networks and state-owned enterprises

The *Act respecting workforce management and control within government departments, public sector bodies and networks and state-owned enterprises* was adopted by the National Assembly in December 2014 to reinforce the mechanisms for managing and controlling the workforces of public organizations.

Héma-Québec certifies that it has complied with the provisions of the act to which it is subject. In particular, in accordance with the prescribed conditions and terms, it submitted to the *Conseil du trésor* the required information concerning the service contracts authorized under section 16 of the act. Héma-Québec's policy concerning contracts was also revised to structure the signing of certain service agreements awarded by Héma-Québec, by appending a directive issued after obtaining the approval of the *Conseil du trésor*. This directive was

sent to the *Conseil du trésor* within the prescribed time frame and is available on Héma-Québec's Web site.

Héma-Québec periodically informed the Minister of Health and Social Services about the number of its employees, providing a breakdown per job category, in accordance with the terms established by the *Conseil du trésor*. As at March 31, 2015, Héma-Québec employed 1,318 people. The graphic below represents the breakdown by employment at that date.

## Breakdown by employment category



**48.1%**

Office personnel,  
technicians



**17.8%**

Nursing  
personnel



**16.4%**

Professional  
personnel



**12.4%**

Management  
personnel



**5.3%**

Labourers,  
maintenance and  
service personnel



## Act respecting the Ministère du Conseil exécutif

Héma-Québec's directors, who are public administrators under this law, are held to the highest ethical and professional standards, thereby fostering and preserving public trust and transparency in the management of Québec's blood system and other biological products of human origin managed by the organization.

Pursuant to the *Regulation respecting the ethics and professional conduct of public office holders*, the Héma-Québec directors adopted a governance framework and director code of ethics in 1999. Since the in-depth review performed in 2006, it is reviewed annually by the Governance and Ethics Committee. The directors sign a form every year certifying that they are committed to complying with it. A new version was approved by the Board of Directors on May 7, 2014, and the modifications essentially consist of the removal of the "governance framework" section since the values and principles stated in it are covered by other fundamental documents or various policies in effect

at Héma-Québec. Changes were also made to take into account the wording of the new *Act respecting Héma-Québec and the biovigilance committee*.

Lastly, a verification of the directors' declarations of interests is performed at the beginning of every Board or committee meeting and included in the minutes. In addition, no incident was dealt with under the director code of ethics and no failure to comply with it was reported.

The director code of ethics can be consulted on page 74 of this document.



## Act to implement certain provisions of the Budget Speech of 30 March 2010, reduce the debt and return to a balanced budget in 2013–2014

In accordance with section 2 of the Act, Héma-Québec applied a salary increase of 2% for its executive, professional, technical and administrative support staff for 2014–2015.



## Policy for the funding of public services

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In accordance with the *Policy for the funding of public services*, Héma-Québec publishes its financial statements in its annual report. These financial statements include, among other things, the fees for the products supplied by Héma-Québec to the population of Québec.

Pursuant to the *Act respecting Héma-Québec and the biovigilance committee*, the methods used to determine the fees for products supplied by Héma-Québec and the means for revising and indexing them are submitted to a yearly process carried out by SigmaSanté, the public supply management organization designated by the Minister of Health and Social Services. Héma-Québec submits its budget rates to SigmaSanté every year so that this organization can ratify them after consultation with the Blood System Procurement and Financing

Management Committee (PFMC). It should be noted that the PFMC is responsible for making recommendations on financial and accounting issues relating to the supply of blood products.

As indicated in the attached 2014–2015 financial statements, Héma-Québec is able to confirm that it has achieved its financial objective. Increased employee productivity has fully absorbed the inflation and the loss of earnings resulting from the decrease in volume. Héma-Québec was able to generate surpluses.



## Policy on the use and quality of French within the government

(Politique gouvernementale relative à l'emploi et à la qualité de la langue française dans l'administration)

Héma-Québec's language policy was drafted and submitted to the *Office québécois de la langue française* for approval in accordance with the *Politique gouvernementale relative à l'emploi et à la qualité de la langue française dans l'administration* (policy on the use and quality of French within the government).





# Director code of ethics

## PREAMBULE

Héma-Québec's mission is to efficiently provide adequate quantities of safe, optimal blood components and substitutes, human tissues, and cord blood to meet the needs of all Quebecers as well as to provide and develop expertise along with specialized and innovative services and products in the fields of transfusion medicine and human tissue transplantation. This mandate is pursuant to the *Act respecting Héma-Québec and the biovigilance committee* and to the recommendations of the Commission of Inquiry into the Blood System in Canada, headed by the Honourable Horace Krever.

Héma-Québec's directors, who are public administrators in accordance with the *Act respecting the Ministère du Conseil exécutif* (R.S.Q. M-30), are held to the highest ethical and professional standards, thereby fostering and preserving public trust and transparency in its mission.

## CODE OF ETHICS

### 1. GENERAL PROVISIONS

#### Definitions

In this code of ethics, unless the context dictates otherwise, the terms and expressions below are used as follows:

- 1.1 "Director or member of the Board of Directors": Person appointed to the Héma-Québec Board of Directors by the government, as well as the President and Chief Executive Officer, who is an ex officio member of the Board of Directors and acts as Secretary;
- 1.2 "Conflict of interest": Any real, apparent, potential or future situation in which a director may be inclined to give preference to his or her personal interest, or the interest of a related party, to the detriment of Héma-Québec;
- 1.3 "Board": Héma-Québec's Board of Directors;
- 1.4 "Related party": Individuals related by blood, adoption or marriage, or who have been living in a conjugal relationship for at least one year, as well as any organization, partnership or other entity in which the director or his/her friends and family may have a controlling interest.

#### Application and interpretation

- 1.5 This code of ethics applies to Héma-Québec's directors.
- 1.6 The code of ethics is not a substitute for any statutory, regulatory or ethical provision applicable to Héma-Québec directors, including those set out in the *Regulation respecting the ethics and professional conduct of public office holders*.  
  
Where such provisions differ, Héma-Québec directors shall abide by the more stringent provision. Moreover, in case of doubt, they must act in the spirit of the principles described in the provisions.
- 1.7 The code of ethics in no way rules out the drafting of additional guidelines or rules pertaining to certain more specific sectors of activity or situations.

### 2. MANAGEMENT DUTIES

- 2.1 Directors are appointed to contribute to the fulfillment of Héma-Québec's mission as part of their mandate. In carrying out their duties, they must adhere to the obligations imposed upon them by the law, the constitution and the rules and regulations, and act within the limits of the power conferred upon them.
- 2.2 The director must perform his/her duties with care and reserve:
  - 2.2.1 The director must be rigorous and independent, and act in the best interests of Héma-Québec.



- 2.2.2 The behaviour of a director must be impartial.
- 2.2.3 The director must act within the limits of his/her mandate.
- 2.2.4 The director must be courteous, his/her relationships must be characterized by good faith, so as to maintain the trust and consideration required by his/her role.
- 2.2.5 The director must not in any way participate in illicit activities.
- 2.2.6 In the carrying out of his/her duties and responsibilities, the director must make decisions without regard for any partisan political consideration. Moreover, he/she must demonstrate restraint in the public expression of personal opinions in matters directly concerning the activities of Héma-Québec and in which the Board of Directors has been involved.
- 2.3 The director must act with honesty, loyalty and solidarity:
  - 2.3.1 The director must act with integrity and impartiality in the best interests of Héma-Québec.
  - 2.3.2 The director must actively take part in the development and implementation of the general directions of Héma-Québec, which in no way precludes his or her right to dissent.
  - 2.3.3 The director must be loyal and upstanding to his/her colleagues and honest in his/her dealings with them.
  - 2.3.4 The director must dissociate the fulfillment of his/her duties from the promotion or exercise of his/her professional or business activities, save for the President and Chief Executive Officer, who is at the exclusive service of Héma-Québec.
- 2.4 The director must act with skill, diligence and efficiency:
  - 2.4.1 The director must exercise his/her skills and abilities, demonstrating diligence and effectiveness in carrying out his/her mandate. He/she must also demonstrate independent professional judgment.
  - 2.4.2 The director is responsible and accountable for all his/her actions taken in the performance of his/her duties.
  - 2.4.3 The director must make informed decisions, taking into account any necessary expertise if need be and considering each file in its entirety.
  - 2.4.4 All members of the Board of Directors must actively participate in the Board's work and attend meetings regularly. They must also be assiduous when taking part in Board committees.
  - 2.4.5 The director must show discernment in the courses of action and choices he/she favors.
- 2.5 The director must act according to the rules of confidentiality:
  - 2.5.1 The director must respect the confidential nature of any information that comes to his/her attention in the course of his/her duties or by virtue of his/her position.

The first clause is not intended to restrict necessary communications between Board members.
  - 2.5.2 The director must not use confidential information that comes to his/her attention during the course of his/her duties for the purpose of obtaining a direct or indirect advantage, now or in the future, for him/herself or a related party.



## 3. CONFLICTS OF INTEREST

### General provisions

- 3.1 The director must at all times maintain a high level of independence and avoid any situation in which there could be a personal advantage, direct or indirect, either now or in the future, which could jeopardize his/her independence, integrity or impartiality.
- 3.2 The director must prevent any conflict of interest or appearance thereof and avoid putting him/herself in a position that could ultimately prevent him/her from fulfilling his/her duties.
- 3.3 The director must avoid any situation which could compromise his/her capacity to fulfill his/her duties in an impartial, objective, professional and independent manner.
- 3.4 The director shall not commingle the assets of Héma-Québec with his/her own; he/she shall not use the assets of Héma-Québec for his/her personal gain or the gain of a related party.
- 3.5 The director may not use Héma-Québec's services or information for his/her personal benefit or for the benefit of a related party.
- 3.6 The director may not exercise his/her duties in his own interest or in the interest of a related party.
- 3.7 The director must not accept a current or future advantage from anyone if he/she has knowledge, evidence or reason to believe that this current or future advantage is granted to him/her for the purpose of influencing his/her decision.
- 3.8 The director shall not make a commitment to a third or related party nor grant that party any guarantee with regard to a vote he/she may be required to cast or to any decision whatsoever that may be made by the Board of Directors.
- 3.9 The director must avoid any situation in which he/she could be in a conflict of interest. Without limiting the scope of the foregoing, the director:

3.9.1 Is in a conflict of interest when the interests in question are such that he/she may be brought to show preference for some of them to the detriment of Héma-Québec, or where his/her judgment and loyalty could be negatively affected.

3.9.2 Is not independent from a given decision if there is a personal advantage or advantage to a related party, now or in the future, as described in article 3.1.

### Preventive measures

3.10 At the start of each meeting, the director must declare any existing conflict of interest to the Chair and see that it is recorded in the minutes.

3.11 The President and Chief Executive Officer may not, under penalty of dismissal, have a direct or indirect interest in a corporate body, partnership or other entity which could lead to a conflict of interest between him/herself and Héma-Québec. However, dismissal shall not be invoked if the interest is devolved upon the President and Chief Executive Officer by succession or gift, provided he/she renounces it or disposes of it promptly.

Any other director having a direct or indirect interest in a corporate body, partnership, or other entity which could lead to a conflict of interest between him/herself and Héma-Québec must, under penalty of dismissal, declare this interest in writing to the Chair of the Board and, if need be, abstain from participating in any deliberation or decision related to said corporate body, partnership, or other entity in which he/she has an interest. The director must also withdraw from the meeting for the duration of the deliberations and vote concerning the matter.

3.12 The director must demonstrate impartiality:

3.12.1 The director shall not solicit, accept or demand any gift, favor, other advantage or consideration, for him/herself or a related party, either directly or indirectly, now



or in the future, which could compromise his/her independence, integrity or impartiality; such is the case of gifts, favors, advantages or considerations other than what is customary and of modest value.

- 3.12.2 The director must not award, offer to award or promise to award to a third party a gift, favor or other advantage or consideration that could compromise his/her independence, integrity or impartiality.

## 4. POLITICAL ACTIVITIES

- 4.1 Any director who intends to run for public office must inform the Chair of the Board of Directors.
- 4.2 A Chair of the Board of Directors or President and Chief Executive Officer who wishes to run for public office must tender his/her resignation.

## 5. POST-MANDATE MEASURES

- 5.1 After his/her mandate expires, the director must maintain confidentiality and refrain from disclosing any non-public data, information, debate or discussion to which he/she was privy by virtue of his/her position at Héma-Québec.
- 5.2 In the year following the expiration of his/her mandate, the director may not participate, either on his/her own behalf or that of a third party, in a procedure, negotiation or other operation to which Héma-Québec is a party and with regard to which he/she has information that is not available to the public.

As well, the director must refrain from offering advice based on information that is not publicly available regarding Héma-Québec or another corporate body, partnership or entity with which he/she has had significant direct dealings in the course of the year preceding the conclusion of his/her mandate.

- 5.3 A director who has relinquished his/her duties must act in such a way so as not to reap undue advantage from his/her previous duties in the service of Héma-Québec.

## 6. RESPONSIBILITIES AND SANCTIONS

- 6.1 Compliance with the code of ethics is an integral part of the duties and obligations of directors.
- 6.2 A director who observes an ethical failure, perceived or real, must inform the Chair of the Board of Directors. If this failure involves the Chair of the Board of Directors, the director must inform the Chair of the Governance Committee.
- 6.3 The Chair of Héma-Québec's Board of Directors or, in the cases involving him or her, the Chair of the Governance Committee, must investigate to ensure that the code of ethics is respected and applied.
- 6.4 A director who infringes upon any of the provisions in the code of ethics leaves him/herself open to the sanctions outlined in the *Regulation respecting the ethics and professional conduct of public office holders*, in accordance with the procedure established in said regulation.
- 6.5 Héma-Québec's Board of Directors shall revise this code of ethics on an annual basis to ensure that it adequately reflects changes in the laws, rules, regulations and situations specific to Héma-Québec.
- 6.6 Each director undertakes to sign the code of ethics agreement form appended hereto at the start of his/her mandate and every year thereafter.

This version was adopted by the Board of Directors on May 7, 2014.

Since Héma-Québec was founded in 1998, no case has ever had to be dealt with under the *Code of Ethics for Directors*; 2014–2015 was no exception.



## Publications

**Apparicio P, Cloutier MS, Chadillon-Farinacci V, Charbonneau J, Delage G.** (2014) "Blood donation clusters in Québec, Canada (2003–2008): spatial variations according to sex and age." *Vox Sanguinis*, 106 (4): 297-306.

**Bonnaure G, Néron S.** (2014) "N-acetyl cysteine regulates the phosphorylation of JAK proteins following CD40-activation of human memory B cells." *Molecular Immunology*, 62 (1): 209-218.

**Boudreau LH, Duchez AC, Cloutier N, Soulet D, Martin N, Bollinger J, Paré A, Rousseau M, Naika GS, Lévesque T, Laflamme C, Marcoux G, Lambeau G, Fardale RW, Pouliot M, Hamzeh-Cognasse H, Cognasse F, Garraud O, Nigrovic PA, Guderley H, Lacroix S, Thibault L, Semple JW, Gelb MH, Biolard É.** (2014) "Platelets release mitochondria serving as substrate for bactericidal group IIA secreted phospholipase A<sub>2</sub> to promote inflammation." *Blood*, 124 (14): 2173-2183.

**Brouard D, Ratelle O, Perreault J, Boudreau D, St-Louis M.** (2015) "PCR-free blood group genotyping using a nanobiosensor." *Vox Sanguinis*, 108 (2): 197-204.

**Cayer MP, Girard M, Fournier D, Delage G, Thibault L.** (2014) "Antimicrobial activity in cord blood units: occurrence and levels of antibiotics." *Transfusion*, 54 (10): 2505-2513.

**de Grandmont MJ, Dion J, Dubuc S, Jacques A, Robillard P, Bédard C, Girard M, Thibault L.** (2014) "A simple approach for quality control monitoring of residual plasma in red blood cell concentrates." *Transfusion*, 54 (suppl): 70A.

**de Grandmont MJ, Ducas É, Girard M, Méthot M, Brien M, Thibault L.** (2014) "Quality and safety of red blood cells stored in two additive solutions subjected to multiple room temperature exposures." *Vox Sanguinis*, 107 (3): 239-246.

**Douville F, Godin G, Légaré F, Germain M.** "Implementation intentions as a strategy to increase the notification rate of potential ocular tissue donors by nurses: a clustered randomized trial in hospital settings." *Nursing Research and Practice*, DOI: 10.1155/2014/921263 (posted online on December 1, 2014).

**Dugas-Bourdages E, Néron S, Roy A, Darveau A, Delage R.** (2014) "Persistent polyclonal B-cell lymphocytosis B cells can be activated through CD40-CD154 interaction." *Advances in Hematology*, 854124.

**Dumont N, Boyer L, Émond H, Çelebi-Saltik B, Pasha R, Bazin R, Mantovani D, Roy DC, Pineault N.** (2014) "Medium conditioned with mesenchymal stromal cell-derived osteoblasts improves the expansion and engraftment properties of cord blood progenitors." *Experimental Hematology*, 42 (09): 741-752.

**Fearon M, Scalia V, O'Brien S-F, Bigham M, Andonov A, Weger S, Bernier F, Dubuc S, Delage G, Germain M.** (2014) "Seroprevalence of babesia and hepatitis E in Canadian blood donors." *Transfusion*, 54 (suppl): 27A.

**Germain M, Delage G, Blais C, Maunsell E, Grégoire Y.** (2014) "A retrospective cohort study of the chronic effects of blood donation on the risk of cerebral and peripheral vascular disease." *International Journal of Epidemiology*, 07, 0766.

**Germain M, Robillard P, Delage G, Goldman M.** (2014) "Allowing blood donation from men who had sex with men more than five years ago: a model to evaluate the impact on transfusion safety in Canada." *Vox Sanguinis*, 106: 372-375.

**Godin G, Germain M.** (2014) "How to motivate whole blood donors to become plasma donors." *Journal of Blood Transfusion*, DOI: 10.1155/2014/752182 (posted online on October 28, 2014).





**Godin G, Germain M, Conner M, Delage G, Sheeran P.** (2014) "Promoting the return of lapsed blood donors: a seven-arm randomized controlled trial of the question-behavior effect." *Health Psychology*, 33 (7): 646-655.

**Goldman M, Land K, Robillard P, Tomasulo P, Wiersum-Osselton J.** (2014) "Standard for surveillance of complications related to blood donation." Working Group on Donor Vigilance of the International Society of Blood Transfusion Working Party on Haemovigilance in collaboration with The International Haemovigilance Network. Available in the Definitions section: [www.isbtweb.org/working-parties/haemovigilance/](http://www.isbtweb.org/working-parties/haemovigilance/).

**Itoua-Maïga R, Bonnaure G, Trembaly-Rochette J, Néron S.** (2014) "Human CD38hiCD138+ plasma cells can be generated in vitro from CD40-activated switched-memory B lymphocytes." *Journal of Immunology Research*, 635108.

**Lieberman L, Devine DV, Reesink HW, Panzer S, Wong J, Raison T, Benson S, Pink J, Leitner GC, Horvath M, Compennolle V, Scuracchio PS, Wendel S, Delage G, Nahiriak S, Dongfu X, Krusius T, Juvonen E, Sainio S, Cazenave JP, Guntz P, Kientz D, Andreu G, Morel P, Seifried E, Hourfar K, Lin CK, O'Riordan J, Raspollini E, Villa S, Rebullia P, Flanagan P, Teo D, Lam S, Ang AL, Lozano M, Saulea S, Cid J, Perreira A, Ekermo B, Niederhauser C, Waldvogel S, Fontana S, Desborough MJ, Pawson R, Li M, Kamel H, Busch M, Qu L, Triulzi D.** (2014) "Prevention of transfusion-transmitted cytomegalovirus (CMV) infection: standards of care." *Vox Sanguinis*, 107 (3): 276-311.

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**Néron S, Roy A, Dussault N, Philippeau C.** (2014) "Anti-thyroglobulin IgG in therapeutic immunoglobulins: a reactivity bias in IgG4 subclass." *Open Journal of Immunology*, 4 (3): 68-75.

**O'Brien SF, Delage G, Seed CR, Pillonel J, Fabra CC, Davison K, Kitchen A, Steele WR, Leiby DA.** "The epidemiology of imported malaria and transfusion policy in 5 nonendemic countries." *Transfusion Medicine Reviews*, DOI: 10.1016/j.tmr.2015.03.004 (posted online on March 26, 2015).

**Padet L, Bazin R.** (2014) "Effects of IVIg on T cell functions." Allegro R, *Plasmapheresis and Intravenous Immunoglobulin: Clinical Uses, Potential Complications and Long-Term Health Effects. Recent Advances in Hematology Research* (Nova Science Publishers, Inc.): 107-134.

**Padet L, Loubaki L, Bazin R.** (2014) "Induction of PD-L1 on monocytes: a new mechanism by which IVIg inhibits mixed lymphocyte reactions." *Immunobiology*, 219 (09): 687-694.

**Padet L, Loubaki L, Bazin R.** "Use of IVIg to identify potential miRNA targets for allograft rejection and GvHD therapy." *Clinical Transplantation*, DOI: 10.1111/ctr.12549 (posted online on March 31, 2015).

**Pietersz RN, Reesink HW, Panzer S, Oknaian S, Kuperman S, Gabriel C, Rapaille A, Lambermont M, Deneys V, Sondag D, Ramirez-Arcos S, Goldman M, Delage G, Bernier F, Germain M, Vuk T, Georgsen J, Morel P, Naegelen C, Bardiaux L, Cazenave JP, Dreier J, Vollmer T, Knabbe C, Seifried E, Hourfar K, Lin CK, Spreafico M, Raffaele L, Berzuini A, Prati D, Satake M, de Korte D, van der Meer PF, Kerkhoffs JL, Blanco L, Kjeldsen-Kragh J, Svard-Nilsson AM, McDonald CP, Symonds I, Moule R, Brailsford S, Yomtovian R, Jacobs MR.** (2014) "Bacterial contamination in platelet concentrates." *Vox Sanguinis*, 106 (3): 256-83.

**Robillard P, Grégoire Y, Myhal G, Delage G, Germain M.** (2014) "Age of red blood cells transfused at a population level." *Transfusion*, 54 (suppl): 43A.

**Simard C, Cloutier M, Néron S.** (2014) "Rapid determination of IL-6 specific activity by flow cytometry." *Journal of Immunological Methods*, 415: 63-65.

**St-Louis M, Éthier C, Perreault J, Lavoie J.** "A new Rh<sub>null</sub> allele in Francophone Quebecers." *Transfusion*, DOI: 10.1111/trf.12887 (posted online on October 9, 2014).

**Zeller M, Cserti-Gazdewich CM, Delage G, Heddle NM.** (2014) "Donath-Landsteiner testing: a retrospective review of testing during seven years at a large academic health center and results of a national survey." *Transfusion*, 54 (suppl): 225A.



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ANNUAL CONFERENCE OF THE ASSOCIATION OF MEDICAL MICROBIOLOGY AND INFECTIOUS DISEASE CANADA (AMMI), VICTORIA, CANADA, APRIL 3 TO 5, 2014

 Oral presentation

**Fearon M, Scalia V, O'Brien S, Bigham M, Andonov A, Weger S, Bernier F, Dubuc S, Delage G, Germain M.** "Babesia and hepatitis E seroprevalence in Canadian blood donors."

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CANADIAN SOCIETY FOR TRANSFUSION MEDICINE (CSTM) ANNUAL CONFERENCE, QUÉBEC, CANADA, MAY 1 TO 4, 2014

 Oral presentations

**Chabot D, Trépanier P, Bazin R.** "Role of CD62L in the inhibitory effect of IVIg on the cytotoxic activity of CD8+ T cells."

**Delage G.** "TRALI: effet adverse de la transfusion et lien avec les anticorps anti-HLA."

**Delage G.** "Hépatite E: une cause d'infection, transmise par transfusion, en émergence."

**Ducas É, Jacques A, Girard M, Bédard C, Boisclair P, Thibault L.** "Why not keep source plasma at room temperature? A stability study at 4°C, 22°C or 30°C."

**Germain M.** "Infections transmises par transfusion: mineures et vedettes déchués."

**Germain M.** "Banque de lait maternel à Héma-Québec : une nouvelle tournure pour un produit éprouvé."

**Girard M, Cayer MP, Thibault L.** "MicroRNAs in blood products: new quality biomarkers?"

 Posters

**Allard MÈ, Jacques A, Nolin MÈ, Bédard C, Girard M, Thibault L.** "Evaluation of the CompoGuard automated blood collection mixer."

**Bédard C, Girard M, Dion J, Laliberté I, Germain M, Thibault L.** "Changing a life, drop by drop."

**Boyer L, Roy A, Blais Y.** "Acquisition of equipments for controlled cell manufacturing process: a step to C-LAVIE."

**Cloutier M, Simard C, Néron S.** "CD34+ cell enumeration by flow cytometry: a comparison of two Health Canada approved kits on an Accuri C6."

**de Grandmont MJ, Cayer MP, Girard M, Fournier D, Thibault L.** "Cord blood sterility testing: in search of a winning formula."

**Drouin M, Dumont N, Tremblay T, Loubaki L, Bazin R, Fradette J, Laganière J.** "Enhanced expansion and immunomodulatory capacities for xeno-free-cultured adipose-derived stromal/stem cells."

**Dussault N, de Grandmont MJ, Bédard C, Girard M, Brouard D, Thibault L.** "Excursion of frozen plasma units to ambient temperature: how long bags can be left out of controlled temperature storage?"

**Laforce-Lavoie A, Jacques A, Chevrier MC, Girard M, Thibault L.** "Red blood cells washing with the ACP 214 system: a validation study."

**Laforce-Lavoie A, Jacques A, Girard M, Thibault L.** "Comparison of in vitro parameters of red blood cells washed with dextrose saline or Ringer's acetate and stored in AS-3."

**Lavoie J, Éthier C, Perreault J, St-Louis M.** "A new Rh<sub>null</sub> allele identified in Quebec."

**Paré I, Loubaki L, Rouleau P, Émond H, Dumont N, Bazin R.** "Evaluation of three methods for the extraction of mesenchymal stem cells from umbilical cords."

**Perreault J, Éthier C, Lavoie J, St-Louis M.** "MNS typing problems."



**Poder TG, Pruneau D, Dorval J, Thibault L, Sale Menard D, Fisette JF, Bédard SK, Comtois M, Blais LL, Andrianary FN, Bellemare C, Beauregard P.** *“Hémolyse par réchauffement: comparaison des réchauffe-liquides HL-90 et HL-90-38.”*

**Rhéaume MÈ, Fournier D, Chevrier MC, Bazin R.** *“Effect of the pre-processing storage temperature on the potency of cord blood stem cells.”*

**Ringuette Goulet C, St-Amour I, Bazin R, Calon F.** *“Impact of intravenous immunoglobulins on hippocampal proteome in 3XTG-AD mouse model of Alzheimer’s disease.”*

**Rouleau P, Rhéaume MÈ, Fournier D, Chevrier MC, Bazin R.** *“Post-reduction cell recovery in buffy coat fractions of cord blood units.”*

**Roy A, Boyer L, Blais Y.** *“Implementation of a configurable laboratory for use in cellular process development and manufacturing.”*

**Simard C, Cloutier M, Bourgouin L, Dion J, Néron S.** *“Rapid nucleated red blood cell enumeration by flow cytometry.”*

**Thibault L, Dion J, Dubuc S, Jacques A, Robillard P, Bédard P, Bédard C, Girard M, de Grandmont MJ.** *“Monitoring residual plasma volume in red blood cell units: a new tool for blood product quality control.”*

**Tremblay T, Loubaki L, Bazin R.** *“Assessment of the immunosuppressive potential of mesenchymal stem cells by flow cytometry.”*



## Invited lectures

**Brouard D.** *“Journey to the nano-sized world! Superluminescent nanoparticles for genotyping and bioimaging applications.”*

**Loubaki L.** *“Mesenchymal stem cell for cellular therapy: a new opportunity for Héma-Québec.”*

**Robillard P.** *“Standard definitions of adverse transfusion reactions.”*

**Robillard P.** *“Blood donation by men who have sex with men.”*



## Workshops

**Néron S.** *“Basic principles of humoral immunity: antibodies and long-term memory.” Presented as part of the “Nursing I (nursing and health care professionals)”.*

**Thibault L.** *“How do I choose a device to measure patient hemoglobin.” Presented as part of the “Nursing II (nursing and laboratory technologists)”.*

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**ASSOCIATION PROFESSIONNELLE DES CHARGÉS DE SÉCURITÉ TRANSFUSIONNELLE DU QUÉBEC (APCSTQ) PROVINCIAL MEETING, QUÉBEC, CANADA, MAY 15, 2014**



## Oral presentation

Lebrun A. *“Hémochromatose.”*

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**33<sup>rd</sup> ANNUAL MEETING OF THE INTERNATIONAL SOCIETY OF BLOOD TRANSFUSION (ISBT), SEOUL, KOREA, MAY 31 TO JUNE 5, 2014**



## Invited lecture

**Germain M.** *“Impact of less stringent deferral policies for men having sex with men: predictions versus reality.”*

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**CANADIAN BLOOD AND MARROW TRANSPLANT GROUP (CBMTG) ANNUAL CONFERENCE, HALIFAX, CANADA, JUNE 11 TO 14, 2014**



## Posters

**Cayer MP, Girard M, Fournier D, Delage G, Thibault L.** *“Antimicrobial activity in cord blood units: occurrence and levels of antibiotics.”*



**Simard C, Cloutier M, Néron S.** "Enumeration of CD34+ cells using an Accuri C6 cytometer." (Prize for best abstract)

AMERICA'S BLOOD CENTERS (ABC) ANNUAL MEETING, SEATTLE, UNITED STATES, AUGUST 5 TO 7, 2014



*Invited lecture*

Germain M. "Evidence-based donor recruitment initiatives: the Héma-Québec experience."

43<sup>rd</sup> ANNUAL SCIENTIFIC MEETING OF THE INTERNATIONAL SOCIETY OF EXPERIMENTAL HEMATOLOGY (ISEH), MONTRÉAL, CANADA, AUGUST 21 TO 24, 2014



*Poster*

**Jobin C, Cloutier M, Néron S.** "Ex vivo expansion of hematopoietic stem cells from steady state peripheral blood."

GRAFT-VERSUS-HOST DISEASE SYMPOSIUM AND CANADIAN BLOOD SERVICES/HÉMA-QUÉBEC STEM CELLS SYMPOSIUM, MONTRÉAL, CANADA, SEPTEMBER 19 AND 20, 2014



*Invited lecture*

**Bazin R.** "Manufacturing mesenchymal cells for the treatment of GvHD: a new opportunity for Héma-Québec."

CANADIAN HEMOCHROMATOSIS SOCIETY INFORMATION SESSION, ROYAL VICTORIA HOSPITAL, MONTRÉAL, CANADA, OCTOBER 9, 2014



*Oral presentation*

**Delage, G.** "Héma-Québec and donors with hemochromatosis."

BEST XLVIII, PHILADELPHIA, UNITED STATES, OCTOBER 22, 2014



*Oral presentation*

**Germain M.** "A case-control study of donor factors associated with unacceptably low pH in stored apheresis platelets: phase I – retrospective component."

AABB ANNUAL MEETING, PHILADELPHIA, UNITED STATES, OCTOBER 24 TO 28, 2014



*Oral presentations*

**Robillard P, Grégoire Y, Myhal G, Delage G, Germain M.** "Age of red blood cells transfused at a population level."

**Bédard C, Girard M, Cayer MP, de Grandmont MJ, Nolin MÈ, Jacques A, Dion J, Germain M, Laliberté I, Thibault L.** "Evolving roles of blood banks: preparation of plasminogen eye drops for an effective treatment of ligneous conjunctivitis."

**Thibault L, Cayer MP, Girard M.** "Influence of whole blood processing on microRNA levels in red blood cells (RBCs) stored in two additive solutions."



*Posters*

**Beauregard P, Poder TG, Pruneau-Fortier D, Dorval J, Sale-Ménard D, Fisette J, Bédard SK, Blais LL, Bellemare CA, Thibault L.** "Effect of heat and flow rate conditions of fluid warmers on red blood cell integrity."

**de Grandmont MJ, Dion J, Dubuc S, Jacques A, Robillard P, Bédard C, Girard M, Thibault L.** "A simple approach for quality control monitoring of residual plasma in red blood cell concentrates."

**Fearon M, Scalia V, O'Brien S-F, Bigham M, Andonov A, Weger S, Bernier F, Dubuc S, Delage G, Germain M.** (2014) "Seroprevalence of babesia and hepatitis E in Canadian blood donors."



**Lebrun A, Constanzo-Yanez J, Éthier C, Perreault J, Lavoie J, St-Louis M.** “Anti-Ge involved in autoimmune hemolytic anemia.”

**Robitaille N, Constanzo-Yanez J, Éthier C, Lavoie J, St-Louis M.** “A new weak RHD allele in North Africans.”

**Thibault L, Ducas É, Jacques A, Bédard C, Boisclair P.** “Why not just keep source plasma at room temperature? A pilot study at 4°C, 22°C and 30°C.”

**Zeller M, Cserti-Gazdewich CM, Delage G, Heddle NM.** “Donath-Landsteiner testing: a retrospective review of testing during seven years at a large academic health center and results of a national survey.”



*Invited lectures*

**Robillard P.** “How to avoid non-ABO immune-mediated hemolysis and red cell alloimmunization.”

**Robillard P.** “Stump the hemovigilance experts.”

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4<sup>th</sup> SYMPOSIUM OF THE ASSOCIATION D'ANÉMIE FALCIFORME DU QUÉBEC (AAFQ), CENTRE HOSPITALIER UNIVERSITAIRE SAINTE-JUSTINE, MONTRÉAL, CANADA, NOVEMBER 8, 2014



*Oral presentation*

**Lebrun A.** “Anémie falciforme et transfusions.”

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ASSOCIATION PROFESSIONNELLE DES CHARGÉS DE SÉCURITÉ TRANSFUSIONNELLE DU QUÉBEC (APCSTQ) PROVINCIAL MEETING, CHUM NOTRE-DAME, MONTRÉAL, CANADA, NOVEMBER 27, 2014



*Oral presentation*

**Lebrun A.** “Plaquettes 7 jours.”

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MEETING AT COLLÈGE DES MÉDECINS DU QUÉBEC, MONTRÉAL, CANADA, NOVEMBER 24, 2014



*Oral presentation*

**Lebrun A.** “Transfusion de granulocytes.”

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MEETINGS OF THE MONTRÉAL AND QUÉBEC TRANSFUSION MEDICINE ADVISORY COMMITTEES AND EXPERTS OF THE RÉSEAU UNIVERSITAIRE INTÉGRÉS DE SANTÉ (RUIS)



*Oral presentations*

May 23, 2014:

**Lebrun A.** “Plaquettes 7 jours.”

**Lebrun A.** “Solutions additives pour plaquettes.”

**Lebrun A.** “Histoire de cas — AHAI (Anémies hémolytiques auto-immunes).”

Novembre 28, 2014:

**Lebrun A.** “Plaquettes HLA compatibles: impact du degré de compatibilité sur la hausse des décomptes post-transfusionnels.”



# FINANCIAL STATEMENTS

## FOR THE YEAR ENDED MARCH 31, 2015

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# MANAGEMENT'S REPORT

The financial statements of Héma-Québec in this annual report were drawn up by management, which is responsible for their preparation, presentation and the significant judgments and estimates included therein. This responsibility involves the selection of appropriate accounting policies that comply with Canadian Public Sector Accounting Standards. The financial information presented elsewhere in this annual report is consistent with that provided in the financial statements.

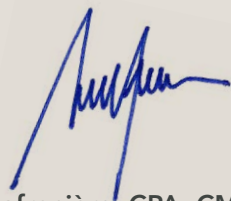
To fulfil its mandate, management maintains a system of internal accounting controls designed to provide reasonable assurance that assets are safeguarded and that transactions are duly approved and properly recorded on a timely basis and in a manner suitable for preparing reliable financial statements.

Héma-Québec recognizes that it is responsible for conducting its affairs in accordance with the statutes and regulations governing it.

The Board of Directors monitors the manner in which management carries out its financial reporting responsibilities and approves the financial statements. It is assisted in its responsibilities by the Audit Committee whose members are not part of management. The Committee meets with management and the Auditor General of Québec, reviews the financial statements and recommends their approval to the Board of Directors.

The Auditor General of Québec has audited the financial statements of Héma-Québec in accordance with Canadian generally accepted auditing standards. His independent auditor's report states the nature and scope of the audit and expresses his opinion.

The Auditor General of Québec has full and unrestricted access to the Audit Committee to discuss any matter related to his audit.



**Guy Lafrenière, CPA, CMA, MBA**  
Vice-President, Administration and Finance



**Serge Maltais**  
President and Chief Executive Officer

Montréal, June 10, 2015

# INDEPENDENT AUDITOR'S REPORT

To the National Assembly

## Report on the financial statements

I have audited the financial statements of Héma-Québec, which comprise the statement of financial position as at March 31, 2015, and the statements of operations and accumulated surplus, remeasurement gains and losses, changes in net debt and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information in the accompanying notes.

### *Management's responsibility for the financial statements*

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian Public Sector Accounting Standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

### *Auditor's responsibility*

My responsibility is to express an opinion on these financial statements based on my audit. I conducted my audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

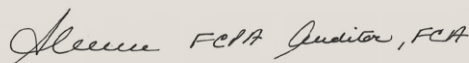
### *Opinion*

In my opinion, these financial statements present fairly, in all material respects, the financial position of Héma-Québec as at March 31, 2015 and the results of its operations, remeasurement of gains and losses, changes in net debt and its cash flows for the year then ended in accordance with Canadian Public Sector Accounting Standards.

## Report on other legal and regulatory requirements

As required by the *Auditor General Act* (CQLR, chapter V-5.01), I report that, in my opinion, these principles have been applied on a basis consistent with that of the previous year.

Auditor General of Québec,



Guylaine Leclerc, FCPA auditor, FCA

Montréal, June 10, 2015

**STATEMENT OF OPERATIONS AND ACCUMULATED SURPLUS FOR THE YEAR ENDED MARCH 31, 2015**  
(in thousands of dollars)

	2015 BUDGET	2015 ACTUAL	2014 ACTUAL
<b>REVENUES</b>			
Blood products (note 3)	358,157	332,902	314,865
Grants from the Government of Québec	35,343	37,210	32,404
Human tissues	3,456	3,312	2,888
Stem cells	2,537	2,331	1,445
Cord blood	3,410	1,726	2,120
Interest	348	590	452
Other	2,645	2,975	3,370
	<b>405,896</b>	<b>381,046</b>	<b>357,544</b>
<b>EXPENSES (note 4)</b>			
Stable products	242,348	220,661	207,286
Labile products	134,883	117,183	120,939
Other services	28,665	27,666	23,362
	<b>405,896</b>	<b>365,510</b>	<b>351,587</b>
<b>OPERATING SURPLUS (before undernoted)</b>	<b>–</b>	<b>15,536</b>	<b>5,957</b>
Fiscal 2014 surplus used (note 5)	–	(5,957)	–
<b>ANNUAL OPERATING SURPLUS</b>	<b>–</b>	<b>9,579</b>	<b>5,957</b>
<b>ACCUMULATED OPERATING SURPLUS, BEGINNING OF YEAR</b>		10,442	4,485
<b>ACCUMULATED OPERATING SURPLUS, END OF YEAR (note 5)</b>		<b>20,021</b>	<b>10,442</b>

– The accompanying notes are an integral part of the financial statements.

**STATEMENT OF REMEASUREMENT GAINS AND LOSSES FOR THE YEAR ENDED MARCH 31, 2015**  
(in thousands of dollars)

	2015	2014
<b>ACCUMULATED REMEASUREMENT GAINS, BEGINNING OF YEAR</b>	7,179	396
<b>Unrealized gains attributable to the following:</b>		
Derivatives	22,114	7,071
Exchange rate	275	108
<b>Amount reclassified to operating surplus</b>		
Derivatives	(7,071)	(794)
Exchange rate	(108)	398
<b>Net remeasurement gains for the year</b>	<b>15,210</b>	<b>6,783</b>
<b>ACCUMULATED REMEASUREMENT GAINS, END OF YEAR</b>	<b>22,389</b>	<b>7,179</b>

– The accompanying notes are an integral part of the financial statements.

**STATEMENT OF FINANCIAL POSITION FOR THE YEAR ENDED MARCH 31, 2015**  
(in thousands of dollars)

	2015	2014
<b>FINANCIAL ASSETS</b>		
Cash and cash equivalents	21,685	33,923
Accounts receivable (note 6)	8,018	7,186
Inventories held for sale (note 7)	40,428	41,231
Derivatives (note 15)	22,114	7,071
	<b>92,245</b>	<b>89,411</b>
<b>LIABILITIES</b>		
Accounts payable and accrued liabilities (note 8)	35,070	33,419
Deferred grants from the Government of Québec (note 9)	1,272	11,639
Prepayments from the Government of Québec (note 5)	5,957	–
Non-interest bearing advance from the Government of Québec	5,758	24,289
Debt (notes 10 and 11)	47,177	44,452
Employee future benefits liability (note 12)	5,990	4,595
	<b>101,224</b>	<b>118,394</b>
<b>NET DEBT</b>	<b>(8,979)</b>	<b>(28,983)</b>
<b>NON-FINANCIAL ASSETS</b>		
Tangible capital assets (note 13)	47,963	43,747
Prepaid expenses (note 14)	3,426	2,857
	<b>51,389</b>	<b>46,604</b>
<b>ACCUMULATED SURPLUS</b>	<b>42,410</b>	<b>17,621</b>
Accumulated operating surplus (note 5)	20,021	10,442
Accumulated remeasurement gains	22,389	7,179
	<b>42,410</b>	<b>17,621</b>
<b>Contractual commitments (note 16)</b>		
<b>Contingencies (note 17)</b>		

The accompanying notes are an integral part of the financial statements.

ON BEHALF OF THE BOARD OF DIRECTORS,



**Martine Carré, MA**  
Chair of the Board of Directors



**René Carignan, CPA, CA**  
Chair of the Audit Committee



**STATEMENT OF CHANGES IN NET DEBT FOR THE YEAR ENDED MARCH 31, 2015**  
(in thousands of dollars)

	2015 BUDGET	2015 ACTUAL	2014 ACTUAL
<b>ANNUAL OPERATING SURPLUS</b>	<b>–</b>	<b>9,579</b>	<b>5,957</b>
Acquisition of tangible capital assets	(19,062)	(10,072)	(11,551)
Amortization of tangible capital assets	7,122	5,854	5,078
(Gain) loss on disposal of tangible capital assets	–	(6)	46
Proceeds on disposal of tangible capital assets	–	8	–
	<b>(11,940)</b>	<b>(4,216)</b>	<b>(6,427)</b>
Acquisition of prepaid expenses	–	(4,195)	(3,313)
Use of prepaid expenses	–	3,626	3,719
	<b>–</b>	<b>(569)</b>	<b>406</b>
<b>Net remeasurement gains for the year</b>	<b>–</b>	<b>15,210</b>	<b>6,783</b>
<b>Decrease (increase) in net debt</b>	<b>(11,940)</b>	<b>20,004</b>	<b>6,719</b>
<b>NET DEBT, BEGINNING OF YEAR</b>	<b>(28,983)</b>	<b>(28,983)</b>	<b>(35,702)</b>
<b>NET DEBT, END OF YEAR</b>	<b>(40,923)</b>	<b>(8,979)</b>	<b>(28,983)</b>

*The accompanying notes are an integral part of the financial statements.*

**STATEMENT OF CASH FLOWS FOR THE YEAR ENDED MARCH 31, 2015**  
(in thousands of dollars)

	2015	2014
<b>OPERATING ACTIVITIES</b>		
Annual operating surplus	9,579	5,957
Items not affecting cash and cash equivalents		
Amortization of tangible capital assets	5,854	5,078
Effective rate debt adjustment	44	(150)
(Gain) loss on disposal of tangible capital assets	(6)	46
Unrealized foreign exchange gain on cash and non-cash working capital items denominated in foreign currencies	167	506
	<b>15,638</b>	<b>11,437</b>
Change in assets and liabilities		
Accounts receivables	(832)	(3,354)
Inventories held for sale	803	3,645
Accounts payable and accrued liabilities	774	(16,010)
Deferred grants from the Government of Québec	(10,367)	6,073
Prepayments from the Government of Québec	5,957	–
Advance from the Government of Québec	(18,531)	13,471
Prepaid expenses	(569)	406
Employee future benefits liability	1,395	(2,884)
<b>Cash flows from operating activities</b>	<b>(5,732)</b>	<b>12,784</b>
<b>INVESTING ACTIVITIES RELATED TO TANGIBLE CAPITAL ASSETS</b>		
Acquisition of tangible capital assets	(9,195)	(11,292)
Proceeds on disposal of tangible capital assets	8	–
<b>Cash flows used in investing activities related to tangible capital assets</b>	<b>(9,187)</b>	<b>(11,292)</b>
<b>FINANCING ACTIVITIES</b>		
Increase in debt	10,500	10,800
Debt repayment	(7,819)	(8,734)
<b>Cash flows from financing activities</b>	<b>2,681</b>	<b>2,066</b>
<b>(DECREASE) INCREASE IN CASH AND CASH EQUIVALENTS</b>	<b>(12,238)</b>	<b>3,558</b>
<b>CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR</b>	<b>33,923</b>	<b>30,365</b>
<b>CASH AND CASH EQUIVALENTS, END OF YEAR</b>	<b>21,685</b>	<b>33,923</b>
<b>ADDITIONAL INFORMATION</b>		
Interest paid	1,205	1,160
Interest received	612	442
Acquisition of tangible capital assets funded by accounts payable and accrued liabilities	1,994	1,117

— The accompanying notes are an integral part of the financial statements.

## 1. INCORPORATION AND NATURE OF OPERATIONS

Héma-Québec, constituted on March 26, 1998 by letters patent issued under Part III of the *Companies Act* (CQLR, chapter c-38), is continued in accordance with the provisions of the *Act respecting Héma-Québec and the biovigilance committee* (CQLR, chapter H-1.1). Héma-Québec's mission is to efficiently meet the needs of the Québec population for safe, optimal-quality blood and blood products, human tissues, cord blood, mother's milk and cellular products; to develop and provide expertise and specialized, innovative services in the field of human biological products. Héma-Québec operates in a regulated environment in compliance with the requirements of the *Food and Drug Act* and its laws and related regulations. To fulfil its mission, Héma-Québec also meets the requirements and regulations of several Canadian and international accreditation standards. Under its incorporating statute, Héma-Québec is a legal person not established for pecuniary gain (not-for-profit organization) and is not subject to income taxes.

## 2. SIGNIFICANT ACCOUNTING POLICIES

In preparing its financial statements, Héma-Québec primarily uses the *CPA Canada Public Sector Accounting Handbook* (PSA). The use of any other primary source in the application of accounting principles must be consistent with the PSA.

### Use of estimates

The preparation of the financial statements of Héma-Québec in accordance with Canadian Public Sector Accounting Standards requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and the recognition of amounts of revenues and expenses for the financial statement reporting period. The main estimates consist of the useful life of capital assets, the valuation of inventories for sale, the allowance for pay equity and the employee future benefit liability. Actual results could differ from management's best estimates.

### Financial instruments

Financial instruments comprise financial assets and liabilities as well as derivatives. Their assessment depends on their classification, as described below.

Cash and cash equivalents	Cost
Trade accounts and other receivables	Cost
Trade accounts payable, salaries and accrued vacation	Cost
Prepayments from the Government of Québec	Cost
Advance from the Government of Québec	Cost
Derivatives	Fair value
Debt	Amortized cost using the effective interest method

Héma-Québec uses derivative financial instruments to manage currency risk. Unrealized gains and losses on foreign exchange contracts are recorded up until the period in which the remeasurement of gains and losses is settled, and upon settlement, the accumulated balance of remeasurement gains or losses will be reclassified to the statement of operations.

### Hierarchy of fair value measurements

Financial instruments recorded at fair value are classified using a fair value hierarchy that reflects the significance of the inputs used in making the measurements. The fair value measurement hierarchy requires the use of observable market data whenever available. The fair value hierarchy has the following levels:

*Level 1:* The fair value measurements are based on quote prices (unadjusted) in active markets for identical assets or liabilities.

## 2. SIGNIFICANT ACCOUNTING POLICIES (cont'd)

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### Hierarchy of fair value measurements (cont'd)

*Level 2:* The fair value measurements are based on inputs other than quoted prices included within Level 1 that are observable either directly (i.e., as prices) or indirectly (i.e., derived from prices).

*Level 3:* The fair value measurements are based on inputs that are not based on observable market data (unobservable inputs).

The derivative financial instruments are classified within Level 2 of the fair value measurement hierarchy (the fair value of derivatives is based on inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly (i.e., as prices) or indirectly (i.e., derived from prices)).

### REVENUES

Revenues are accounted for on an accrual basis. Revenues resulting from the sale of products are recognized once all the risks and rewards of ownership have been transferred to clients, while revenues from services are recognized as the services are rendered.

Revenues derived from Government of Québec grants are recognized in the period where events giving rise to such revenues occurred, provided the grants are authorized and the eligibility criteria, if any, are met. Grants are presented as deferred grants where the provisions imposed by the transferor create an obligation that meets the definition of a liability. Deferred grants are reduced, and an equivalent amount of grant revenues is recognized as the conditions relative to the liability are met.

### EXPENSES

#### Employee benefit plans

Héma-Québec offers its employees defined benefit and defined contribution pension plans. Contributions are made by both Héma-Québec and plan members. Héma-Québec also provides its employees with certain post-employment benefits accounted for under "other plans", while providing certain retirees with health and life insurance benefits.

The cost of retirement benefits for the period is actuarially determined using the projected benefit method prorated on service. The cost of retirement benefits is measured using net current period benefit cost, amortization of actuarial gains and losses, and employee future benefit obligation interest expense, less the expected return on plan assets. Plan amendments give rise to a past service cost, which is recognized as an expense in the year of the amendments.

Employee future benefit obligations are actuarially determined using the projected benefit method prorated on services and management's best estimates as to the expected rate return on plan investments, inflation rate, discount rate, rate of compensation increase, employee retirement ages and assumed health care cost trends.

The market-related value approach is used to calculate the value of assets and expected return on assets smoothed over a five-year period.

Actuarial gains or losses arise from, in particular, the difference between the actual return on plan assets and the expected return on plan assets, as well as the difference between plan experience and the actuarial assumptions used to determine the employee future benefit obligation, as well as changes to these assumptions. Actuarial gains and losses are amortized over the average expected remaining service life of participating employees.

An employee future benefit asset or liability is presented in the statement of financial position to reflect the difference at year-end between the value of employee future benefit obligations and the value of plan assets, net of unamortized actuarial gains and losses.

## 2. SIGNIFICANT ACCOUNTING POLICIES (cont'd)

### FINANCIAL ASSETS

#### Cash and cash equivalents

Héma-Québec's policy consists in presenting bank balances, in cash and cash equivalents, including bank overdrafts whose balances fluctuate frequently from being positive to overdrawn, as well as the line of credit used to make up cash deficiencies.

#### Inventories held for sale

Inventories held for sale, consisting of inventories of blood, labile and stable products, cord blood and human tissue, are measured at the lower of cost and recoverable amount, with cost determined using the average cost method. Recoverable value is the estimated selling price less the related variable selling expenses.

#### Foreign currency translation

Foreign currency transactions are accounted for at the average monthly exchange rate. Monetary assets and liabilities denominated in foreign currency are translated at the exchange rate in effect on the statement of financial position date, whereas non-monetary items are translated at the historical average monthly exchange rate. Fluctuations in foreign exchange give rise to foreign exchange gains or losses recorded under remeasurement of gains and losses until the settlement period, at which point the accumulated balance of remeasurement of gains and losses is reclassified under the statement of operations.

### LIABILITIES

#### Advance from the Government of Québec

The ministère de la Santé et des Services sociaux (MSSS) annually confirms a budgetary level with Héma-Québec for the acquisition of blood products by hospitals. Héma-Québec therefore records, under Advance from the Government of Québec, the amounts received from the MSSS for payment of expenses for labile and stable products on behalf of the hospitals. In the event that the payments made are higher than the sales of blood products to hospitals, the overpayment will be recovered in accordance with a timeline agreed upon between the MSSS and Héma-Québec.

### NON-FINANCIAL ASSETS

By their nature, the non-financial assets of Héma-Québec are normally used to provide future services.

#### Tangible capital assets

Tangible capital assets are recorded at cost, which consists of expenses directly attributable to their acquisition, and amortized on a straight-line basis over their useful lives commencing on the date they are ready for commissioning using the following rates:

Building, betterment to building and other	from 10 to 25 years
Automotive and other equipment	5 and 10 years
Office furniture and equipment	5 and 10 years
Computer hardware and software	3 years
Systems development	5 and 7 years

Land and tangible capital assets under construction or development are not amortized.

When conditions indicate that a tangible capital asset no longer contributes to Héma-Québec's ability to provide goods and services, or that the value of future economic benefits associated with the tangible capital asset is less than its net book value, the cost of the tangible capital asset is reduced to reflect the decline in the asset's value. Write-downs are accounted for as expenses for the year in the statement of operations and are not subsequently reversed.



### 3. BLOOD PRODUCTS

The budgeted prices for all blood products are submitted every year to SigmaSanté, which is the body designated by the Minister of Health and Social Services to manage joint supplies under Section VI of the *Act respecting Héma-Québec and the biovigilance committee*. Following consultations with the Blood System Procurement and Financing Management Committee (PFMC), the budgeted prices are confirmed by SigmaSanté. The PFMC is an advisory committee to the Québec government's *Direction de la biovigilance*, which falls under the purview of the *Direction générale des services de santé et médecine universitaire*. The PFMC's role is to make recommendations on financial and accounting issues relating to the supply of blood products.

### 4. EXPENSES

				2015	2014
	STABLE PRODUCTS	LABILE PRODUCTS	OTHER SERVICES	TOTAL	TOTAL
Stable products	215,108	–	–	215,108	190,546
Salaries and benefits	360	77,646	10,653	88,659	88,984
Medical and blood drive supplies	–	24,348	5,342	29,690	30,023
Foreign exchange gain	(10,298)	(636)	–	(10,934)	(3,997)
Building and premises	–	9,630	134	9,764	9,164
Amortization of tangible capital assets	3	5,387	464	5,854	5,078
Freight and shipping	42	4,145	373	4,560	4,373
Purchase of cord blood, stem cells, labile products and human tissue	–	4	4,391	4,395	3,484
Purchased services	4,423	(5,690)	5,106	3,839	4,592
Advertising and public relations	–	3,251	212	3,463	3,092
Interest on long-term debt	–	1,247	–	1,247	1,005
Insurance	–	742	–	742	847
Other interest and bank charges	–	198	–	198	99
(Gain) loss on disposal of tangible capital assets	–	(5)	(1)	(6)	46
Other expenses	(59)	8,198	1,163	9,302	9,195
<b>Subtotal</b>	<b>209,579</b>	<b>128,465</b>	<b>27,837</b>	<b>365,881</b>	<b>346,531</b>
Plasma for fractionation*	10,808	(10,808)	–	–	–
Change in inventories**	274	(474)	(171)	(371)	5,056
<b>Total</b>	<b>220,661</b>	<b>117,183</b>	<b>27,666</b>	<b>365,510</b>	<b>351,587</b>

\* Some expenses related to plasma for fractionation are incurred for labile products and reallocated to stable products on the basis of costs incurred. The costs are allocated based on units shipped.

\*\* Change in inventories includes labile and stable products, human tissue, cord blood and plasma for fractionation.

## 5. ACCUMULATED OPERATING SURPLUS

As required by the provisions of section 25 of the *Act respecting Héma-Québec and the biovigilance committee*, any funding surpluses resulting from the application of prices are paid into the General Fund of the Consolidated Revenue Fund, unless a prior agreement between the Minister of Health and Social Services and Héma-Québec is entered into on the use of the surplus.

Héma-Québec received on March 4, 2015 a letter from the Minister of Health and Social Services authorizing the use of \$70,000 from the 2013–2013 surplus for the C·LAVIE complex project. The letter also requests the use of a \$5,957 million amount from the 2013–2014 surplus to finance the fiscal 2015–2016 activities. As such, amounts that will be paid to Héma-Québec in 2015–2016 to finance the sale of labile and stable products will be reduced by a corresponding amount.

As in previous years, Héma-Québec will be requesting an authorization from the Minister of Health and Social Services for reserving the \$15,536 million surplus from fiscal 2014–2015 for its projects.

			2015	2014
	SURPLUS RESERVE	OPERATIONS	TOTAL	TOTAL
<b>ACCUMULATED SURPLUS</b>				
Beginning balance	3,451	6,942	10,393	4,485
Restriction to surplus reserve – C·LAVIE complex	70	(70)	–	–
Investments in tangible capital assets	(1,439)	–	(1,439)	(49)
Surplus related to 2015 activities (before use of surplus realized in 2014)	–	15,536	15,536	5,957
Use of surplus realized in 2014	–	(5,957)	(5,957)	–
<b>Ending balance</b>	<b>2,082</b>	<b>16,451</b>	<b>18,533</b>	<b>10,393</b>
<b>ACCUMULATED SURPLUS INVESTED</b>				
Beginning balance	49	–	49	–
Investments in tangible capital assets	1,439	–	1,439	49
<b>Ending balance</b>	<b>1,488</b>	<b>–</b>	<b>1,488</b>	<b>49</b>
<b>ACCUMULATED OPERATING SURPLUS, END OF YEAR</b>	<b>3,570</b>	<b>16,451</b>	<b>20,021</b>	<b>10,442</b>

## 6. ACCOUNTS RECEIVABLE

	2015	2014
Sales taxes	1,992	1,731
Trade accounts receivable	2,066	2,085
Other receivables	3,960	3,370
	<b>8,018</b>	<b>7,186</b>

## 7. INVENTORIES HELD FOR SALE

	2015	2014
Stable products	25,525	26,868
Plasma for fractionation	6,675	6,268
Labile products	3,448	2,975
Blood drive equipment	2,138	2,095
Cord blood	1,830	1,606
Human tissue	725	778
Laboratory equipment	87	641
	<b>40,428</b>	<b>41,231</b>

## 8. ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

	2015	2014
Trade accounts payable	20,668	20,439
Salaries and accrued vacation	11,776	10,367
Benefits	1,454	1,530
Deferred revenues	1,077	986
Accrued interest payable	95	97
	<b>35,070</b>	<b>33,419</b>

## 9. DEFERRED GRANTS FROM THE GOVERNMENT OF QUÉBEC

On March 3, 2014, the MSSS authorized Héma-Québec to defer the surplus balance of grants to March 31, 2014, to be used only for the purpose intended in 2014–2015. The variations are explained as follows:

	2015	2014
Beginning balance	11,639	5,566
Grants received	35,343	36,477
Expenses: Synagis products and other services	(37,210)	(32,404)
(MSSS recovery) MSSS non-recovery	(8,000)	2,000
MSSS administrative adjustment	(500)	–
<b>Ending balance</b>	<b>1,272</b>	<b>11,639</b>

## 10. CREDIT FACILITIES

Héma-Québec was authorized by the Minister of Health and Social Services to establish a borrowing plan under section 78 of the *Financial Administration Act*, CQLR chapter A-6.001. Under this borrowing plan, Héma-Québec may borrow over the short term or under credit facilities from financial institutions or the Québec Minister of Finance, as manager of the Financing Fund, and over the long term from the said Minister. The authorized amount for the period beginning April 1, 2015 and ending March 31, 2018 aims to make up funding needs not exceeding \$94.6 million and the authorized amount for the previous plan ended March 31, 2015 was \$62 million. The borrowings provided for under these plans serve primarily to fund bank overdrafts, asset acquisition and renewal, loan renewals and the implementation of product safety improvement projects. Héma-Québec's borrowing terms comprise rates similar or equivalent to Government of Québec rates.

Héma-Québec also has a \$15 million revolving line of credit with a financial institution under terms that may be changed at the bank's option. This line of credit is repayable at any time and was undrawn as at March 31, 2015 and 2014.

## 11. DEBT

	2015	2014
Borrowings repayable in monthly instalments of 478 (principal only) (450 in 2014), at fixed rates ranging from 1.24% to 3.31% (1.59% to 4.57% in 2014), maturing from 2016 to 2024.	18,493	17,276
Borrowings repayable in monthly instalments of 223 (principal only) (200 in 2014), at fixed rates ranging from 1.80% to 3.93% (2.72% to 3.93% in 2014), renewable from 2017 to 2023 and maturing from 2021 to 2031.	28,684	27,176
	<b>47,177</b>	<b>44,452</b>

The balance of borrowings from the Financing Fund totalled \$47.2 million as at March 31, 2015 and \$44.5 million as at March 31, 2014.

Assuming renewal under the same terms, principal repayments on debt over the upcoming years are as follows:

2016	7,869
2017	6,852
2018	6,121
2019	5,129
2020	4,294
2021 and thereafter	16,912

## 12. EMPLOYEE FUTURE BENEFITS LIABILITY

Héma-Québec has several funded and unfunded defined benefit plans to ensure that pension, post-retirement and post employment benefits are paid to most employees. The actuarial valuations of the retirement plans were carried out as at December 31, 2013. The employee future benefit obligations shown as at March 31, 2015 and retirement benefit expense for the fiscal year then ended are based on an extrapolation of the latest actuarial valuations. Further, since the previous assessment, certain changes were made to actuarial assumptions and non-union plans.

The defined benefit plans are based on years of service and final average salary. They also provide for partial indexation of pension benefits based on inflation.

Actuarial valuations of the other post-retirement and post-employment benefit plans were carried out as at March 31, 2013. The employee future benefit obligations shown as at March 31, 2015 and retirement benefit expense for the fiscal year then ended are based on an extrapolation of that latest actuarial valuation.

Héma-Québec also has defined contribution plans under which the commitment is limited to the total value of the individual accounts of plan participants.

Actuarial gains and losses are amortized over the expected average remaining service life of active participating employees, which is 11 years for the unionized employee pension plan, 13 years for the non-unionized employee pension plan, 7 years for the supplemental pension plan, 15 years for extended health and life insurance plans and 2 years for post-employment benefits.

## 12. EMPLOYEE FUTURE BENEFITS LIABILITY (cont'd)

### CLASSIFICATION OF EMPLOYEE FUTURE BENEFITS LIABILITY (ASSET)

	2015	2014
Pension plans	(416)	(1,650)
Other plans	6,406	6,245
<b>Total employee future benefits liability</b>	<b>5,990</b>	<b>4,595</b>

### RECONCILIATION OF FINANCIAL POSITION

	2015		2014	
	PENSION PLANS	OTHER PLANS	PENSION PLANS	OTHER PLANS
Employee future benefit obligation	180,101	7,078	161,594	5,891
Pension plan assets	176,991	–	157,874	–
<b>Financial position – deficit</b>	<b>3,110</b>	<b>7,078</b>	<b>3,720</b>	<b>5,891</b>
Unamortized actuarial (losses) gains	(3,526)	(672)	(5,370)	354
<b>Employee future benefit liability (asset), end of year</b>	<b>(416)</b>	<b>6,406</b>	<b>(1,650)</b>	<b>6,245</b>

### EMPLOYEE FUTURE BENEFIT OBLIGATION

	2015		2014	
	PENSION PLANS	OTHER PLANS	PENSION PLANS	OTHER PLANS
Employee future benefit obligation, beginning of year	161,594	5,891	150,341	6,108
Current period benefit cost	10,190	2,285	10,403	2,296
Interest expense on obligation	9,247	144	8,301	132
Benefits paid	(5,908)	(2,268)	(5,906)	(2,296)
Cost of plan amendments	(28)	–	33	–
Actuarial loss (gain)	5,006	1,026	(1,578)	(349)
<b>Employee future benefit obligation, end of year</b>	<b>180,101</b>	<b>7,078</b>	<b>161,594</b>	<b>5,891</b>



## 12. EMPLOYEE FUTURE BENEFITS LIABILITY (cont'd)

### PENSION PLAN ASSETS

	2015		2014	
	PENSION PLANS	OTHER PLANS	PENSION PLANS	OTHER PLANS
Pension plan assets, beginning of year	157,874	–	135,193	–
Employer contributions	5,466	–	11,009	–
Employee contributions	4,626	–	4,612	–
Expected return on plan assets	9,118	–	7,702	–
Benefits paid	(5,908)	–	(5,906)	–
Actuarial gain on plan assets	5,815	–	5,264	–
<b>Pension plan assets, end of year</b>	<b>176,991</b>	<b>–</b>	<b>157,874</b>	<b>–</b>

### MARKET VALUE OF PLAN ASSETS AS AT MARCH 31

	2015		2014	
Shares	108,666	56%	107,553	64%
Bonds	76,720	40%	52,123	31%
Other	7,233	4%	8,617	5%
<b>Total</b>	<b>192,619</b>	<b>100%</b>	<b>168,293</b>	<b>100%</b>

### ACTUAL RETURN ON PLAN ASSETS

	2015	2014
Expected return on plan assets	9,118	7,702
Actual return on plan assets	14,933	12,966
<b>Actuarial gain on plan assets</b>	<b>5,815</b>	<b>5,264</b>
Actual rate of return	9,34%	9,26%

## 12. EMPLOYEE FUTURE BENEFITS LIABILITY (cont'd)

### EMPLOYEE FUTURE BENEFIT EXPENSE FOR THE YEAR

	2015		2014	
	PENSION PLANS	OTHER PLANS	PENSION PLANS	OTHER PLANS
Current period net benefit cost	5,564	2,285	5,791	2,296
Amortization of actuarial losses	1,007	—	1,570	—
Cost of plan amendments	(28)	—	33	—
Unamortized loss recognized against decrease in amendments	28	—	—	—
<b>Benefit expense</b>	<b>6,571</b>	<b>2,285</b>	<b>7,394</b>	<b>2,296</b>
Interest expense on obligation	9,247	144	8,301	132
Expected return on plan assets	(9,118)	—	(7,702)	—
<b>Benefit interest expense</b>	<b>129</b>	<b>144</b>	<b>599</b>	<b>132</b>
<b>Total benefit expense</b>	<b>6,700</b>	<b>2,429</b>	<b>7,993</b>	<b>2,428</b>

### SIGNIFICANT ASSUMPTIONS

	2015		2014	
	PENSION PLANS	OTHER PLANS	PENSION PLANS	OTHER PLANS
<b>Employee future benefit obligation as at March 31</b>				
Union plan discount rate	5.55%	2.20%	5.70%	3.50%
Non-union plan discount rate	5.65%	2.20%	5.70%	3.50%
Rate of compensation increase	3.75%	3.75%	3.75%	3.75%
Inflation rate	2.50%	—	2.50%	—
<b>Benefit expense for the years ended March 31</b>				
Discount rate	5.70%	3.50%	5.50%	3.00%
Expected rate of return on plan assets	5.70%	—	5.50%	—
Rate of compensation increase	3.75%	3.75%	3.75%	3.75%
<b>Demographic factors</b>				
Mortality	CPM-2014 projected using improvement scale CPM-B		CPM-2014 projected using improvement scale CPM-B	

### 13. TANGIBLE CAPITAL ASSETS

2015							
	LAND	BUILDING, BETTERMENT AND LEASEHOLD IMPROVEMENTS	MACHINERY, AUTOMOTIV AND OTHER EQUIPMENT	OFFICE FURNITURE AND EQUIPEMENT	COMPUTER HARDWARE AND SOFTWARE	SYSTEMS DEVELOPMENT	TOTAL
<b>Cost</b>							
Beginning balance	2,140	42,482	25,200	4,331	11,577	10,543	96,273
Acquisitions	–	2,664	2,600	226	1,258	3,324	10,072
Disposals	–	(82)	(2,064)	(217)	(697)	–	(3,060)
<b>Ending balance*</b>	<b>2,140</b>	<b>45,064</b>	<b>25,736</b>	<b>4,340</b>	<b>12,138</b>	<b>13,867</b>	<b>103,285</b>
<b>Accumulated amortization</b>							
Beginning balance	–	19,310	14,545	4,026	9,813	4,832	52,526
Amortization for the year	–	2,166	2,021	153	933	581	5,854
Disposals	–	(82)	(2,064)	(217)	(695)	–	(3,058)
<b>Ending balance</b>	<b>–</b>	<b>21,394</b>	<b>14,502</b>	<b>3,962</b>	<b>10,051</b>	<b>5,413</b>	<b>55,322</b>
<b>Net book value</b>	<b>2,140</b>	<b>23,670</b>	<b>11,234</b>	<b>378</b>	<b>2,087</b>	<b>8,454</b>	<b>47,963</b>
2014							
	LAND	BUILDING, BETTERMENT AND LEASEHOLD IMPROVEMENTS	MACHINERY, AUTOMOTIV AND OTHER EQUIPMENT	OFFICE FURNITURE AND EQUIPEMENT	COMPUTER HARDWARE AND SOFTWARE	SYSTEMS DEVELOPMENT	TOTAL
<b>Cost</b>							
Beginning balance	2,140	39,494	20,363	4,289	11,336	8,525	86,147
Acquisitions	–	2,988	5,427	125	993	2,018	11,551
Disposals	–	–	(590)	(83)	(752)	–	(1,425)
<b>Ending balance*</b>	<b>2,140</b>	<b>42,482</b>	<b>25,200</b>	<b>4,331</b>	<b>11,577</b>	<b>10,543</b>	<b>96,273</b>
<b>Accumulated amortization</b>							
Beginning balance	–	17,321	13,576	3,912	9,656	4,362	48,827
Amortization for the year	–	1,989	1,544	166	909	470	5,078
Disposals	–	–	(575)	(52)	(752)	–	(1,379)
<b>Ending balance</b>	<b>–</b>	<b>19,310</b>	<b>14,545</b>	<b>4,026</b>	<b>9,813</b>	<b>4,832</b>	<b>52,526</b>
<b>Net book value</b>	<b>2,140</b>	<b>23,172</b>	<b>10,655</b>	<b>305</b>	<b>1,764</b>	<b>5,711</b>	<b>43,747</b>

\* The ending balance includes the following tangible capital assets under construction or development:

	LAND	BUILDING, BETTERMENT AND LEASEHOLD IMPROVEMENTS	MACHINERY, AUTOMOTIV AND OTHER EQUIPMENT	OFFICE FURNITURE AND EQUIPEMENT	COMPUTER HARDWARE AND SOFTWARE	SYSTEMS DEVELOPMENT	TOTAL
2015	–	2,348	747	–	294	3,505	6,894
2014	–	49	542	6	169	2,291	3,057

## 14. PREPAID EXPENSES

	2015	2014
Deferred emphyteutic lease charges – Université Laval	1,157	1,216
IT licenses and support contract	913	532
Municipal and school taxes	604	599
Insurance	357	109
Laboratory equipment service and maintenance contract	262	271
Other	133	130
	<b>3,426</b>	<b>2,857</b>

## 15. RISK MANAGEMENT AND FINANCIAL INSTRUMENTS

### Risk management

In the normal course of its operations, Héma-Québec is exposed to various financial risks, described below. Management assesses these risks and implements strategies to minimize their impact on its performance.

#### I. Credit risk

Credit risk is the risk that one party to a financial instrument will cause a financial loss for the other party by failing to discharge an obligation. Héma-Québec is exposed to credit risk resulting from the possibility that parties may default on their financial obligations, where there is a concentration of transactions with a same party or a concentration of third-party financial obligations with similar economic characteristics that would be affected in the same way by future developments. Héma-Québec's financial instruments exposed to credit risk include cash and cash equivalents, trade accounts receivable and other receivables.

The credit risk associated with cash and cash equivalents is limited as the counterparty is a Canadian chartered bank which is assigned a high credit rating by national rating agencies.

Credit risk arising from trade accounts receivable is limited as the main receivables are associated with the sale of cord blood, stem cells and human tissue or services mainly for government organizations that are included in the Government of Québec's reporting entity. Such receivables are collectible during the year.

Other receivables include mainly discounts receivable under contractual agreements with suppliers. Credit risk is limited as these receivables are provided for under the contracts and Héma-Québec has met its purchase obligations. These amounts are collectible within 60 days after the end of the fiscal year.

The carrying amount of Héma-Québec financial instruments exposed to credit risk represents the maximum amount of credit risk to which the organization is exposed and totals \$28 million (\$39 million in 2014) in the statement of financial position. None of these financial instruments was written down and management estimates that the credit quality of all instruments which have not been written down or are past due is strong as at the date of the financial statements.

#### II. Liquidity risk

Liquidity risk is the risk that Héma-Québec may not have the necessary funds to meet its cash needs or to finance its obligations in respect of its financial liabilities as they mature. Liquidity risk also includes the risk that Héma-Québec will not be able to liquidate its financial assets on a timely basis at a reasonable price.

## 15. RISK MANAGEMENT AND FINANCIAL INSTRUMENTS (cont'd)

### II. Liquidity risk (cont'd)

Héma-Québec actively manages its cash and cash equivalents that arise from its operations and believes it has sufficient liquidity and credit facilities to ensure the necessary funds to meet its current and long-term financial obligations at a reasonable cost, if required. Credit facilities are disclosed in note 10.

As at March 31, 2015, the contractual maturities of the financial liabilities were as follows:

	2016	2017	2018 AND THEREAFTER	TOTAL	CARRYING VALUE
Trade accounts payable, salaries and accrued vacation	32,444	–	–	32,444	32,444
Prepayments from the Government of Québec	5,957	–	–	5,957	5,957
Advance from the Government of Québec	5,758	–	–	5,758	5,758
Interest on debt	1,216	1,037	4,204	6,457	6,253
Debt	7,869	6,852	32,456	47,177	47,381
<b>Total non-derivative financial instruments</b>	<b>53,244</b>	<b>7,889</b>	<b>36,660</b>	<b>97,793</b>	<b>97,793</b>
Derivative financial instruments	(22,114)	–	–	(22,114)	(22,114)
<b>Total financial instruments</b>	<b>31,130</b>	<b>7,889</b>	<b>36,660</b>	<b>75,679</b>	<b>75,679</b>

### III. Market risk

Market risk is the risk that the market value or future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk is threefold, comprising interest rate risk, currency risk and other price risk. Héma Québec is exposed to interest rate risk and currency risk.

#### *Interest rate risk:*

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate due to changes in market interest rates. Héma-Québec's debts bear interest on a fixed rate basis. Accordingly, Héma-Québec's exposure to both cash flow interest rate risk and market risk is minimal since Héma-Québec does not intend to repay them early.

#### *Currency risk:*

In the normal course of operations, Héma-Québec purchases its stable products primarily in U.S. dollars and is therefore exposed to fluctuations of that currency. Héma-Québec has established a currency risk management policy and enters into derivative financial instruments to manage currency risk exposures particularly through foreign exchange contracts. To manage the currency risk related to the purchase of stable products and medical and blood drive supplies, Héma Québec entered into 26 foreign exchange contracts to cover 90% of its expected foreign currency requirements in the amount of \$171.6 million at a rate of 1.1377 for the period from April 2, 2015 to March 17, 2016 (in 2014, 26 foreign exchange contracts in the amount of \$163.3 million at a rate of 1.0622 for the period from April 3, 2014 to March 18, 2015).

As at March 31, 2015, unrealized gains on foreign exchange contracts in the amount of \$22 million were recorded in the statement of remeasurement gains and losses (\$7 million as at March 31, 2014) and are measured based on the difference between the foreign currency purchase contract rates and the rate of 1.2666 on quoted prices (unadjusted) in active markets for identical instruments, as at March 31, 2015 (1.1055 as at March 31, 2014).



## 15. RISK MANAGEMENT AND FINANCIAL INSTRUMENTS (cont'd)

### Currency risk (cont'd):

The statement of financial position includes the following amounts in Canadian dollars with respect to financial assets and liabilities denominated in foreign currencies:

	2015	2014
<b>U.S. DOLLARS</b>		
Cash and cash equivalents	2,759	179
Trade accounts receivable	2,725	2,275
Trade accounts payable	4,609	7,092

An 8% change in the U.S. dollar exchange rate (5% in 2014), corresponding to market volatility in the last 12 months, would not have any material effect on the annual surplus from operations or on the remeasurement of gains and losses taking into account the financial assets and liabilities denominated in foreign currencies held by Héma-Québec as at the date of the financial statements.

## 16. CONTRACTUAL OBLIGATIONS

Héma-Québec has entered into long-term leases expiring at various dates over the next twenty years for its operating facilities and administrative premises. In some instances, the leases for premises include a renewal option of up to five years.

The lease expense for the premises for the year ended March 31, 2015 amounted to \$2.9 million (\$2.6 million in 2014). Future minimum payments under long-term leases are as follows:

2016	3,063
2017	2,804
2018	2,701
2019	2,219
2020	1,866
2021 and thereafter	23,002

## 17. CONTINGENCIES

Héma-Québec is exposed to various claims and legal actions in the normal course of operations. Management believes that a sufficient provision has been created regarding the potential outlays arising from those disputes and foresees no adverse material effect on the financial position or results of Héma-Québec.

## 18. RELATED PARTY TRANSACTIONS

In addition to the related party transactions already disclosed in the financial statements and measured at the exchange amount, Héma-Québec is related to all government departments, special funds, agencies and public enterprises controlled directly or indirectly by the Government of Québec or subject to joint control or common significant influence by the Government of Québec. Héma-Québec has not entered into any commercial transactions with these related parties that were not in the normal course of operations and subject to business terms that are usual and customary. These transactions are not disclosed separately in the financial statements.

## 19. COMPARATIVE FIGURES

Certain prior-year figures have been reclassified to conform to current-year presentation.

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