

2002-2003

Annual Report



HÉMA-QUÉBEC

Give blood. Give life.



MISSION

Efficiently provide adequate quantities of safe, top-quality blood components and substitutes to meet the needs of all Quebeckers; provide and develop expertise, services, along with specialized and innovative products in the fields of transfusion medicine and human tissue transplantation.

VISION

Becoming the North American leader in its field by 2005.

VALUES

Authenticity and transparency

Solving problems at the source

Getting it right the first time

Always think “customer”

COVER PAGE:

The central corridor of the new building located at 4045 Côte-Vertu Boulevard in Montréal.

A total of 7,900 square metres in size, the building includes areas for preparing blood drives, storage, the reception and processing of blood, qualification test, labelling, customer service for hospitals, shipping of blood products and immunohematology departments.

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Message

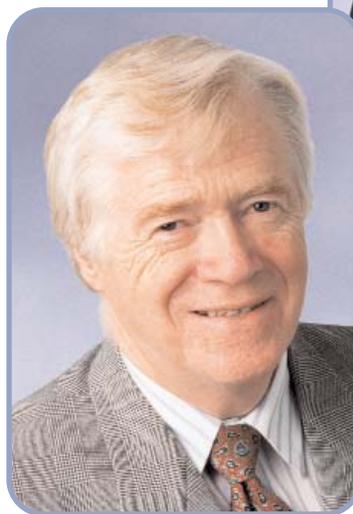
from the Executive Director and the Chairman of the Board

In the healthcare industry, the first few years of the 21st century are being distinguished by the emergence of new illnesses giving rise to a great deal of public anxiety. For this reason, more than ever, the safety of blood products is at the heart of all Héma-Québec decisions and actions.

In the following pages, you will find the highlights of the activities of the organization for 2002-2003, a period marked by a great number of changes, improvements and innovations.

The entire Héma-Québec team—board members, managers, employees and volunteers—devotes itself to fulfilling our mission. We are proud to say that not only have we achieved the activities inherent to the quality of the products we manufacture, but we were also prepared to meet the needs of hospitals—needs which are constantly evolving.

As you will be able to see, 2002-2003 for Héma-Québec stood out for the introduction of numerous new safety measures including several which are firsts for North American blood product suppliers. For example, we introduced the PRISM® high precision technology, which allows us to increase the volume, efficiency and speed of tests used to screen for antibodies of certain viruses and viral antigens while reducing nonconformities. We also introduced the bypass pouch to the blood collection procedure, an innovation that reduces the risk of bacterial infection for the recipient.



With regard to the West Nile virus, which is expected to hit during the summer, we first built up a safe stock of plasma over the winter, which will be distributed to hospitals as needed during summer 2003. The most important measure taken, however, will be the introduction of

a new screening test for this infection that will be carried out on all blood donations.

As for Variant Creutzfeldt-Jakob Disease, we organized a conference at which international experts recommended criteria for the eventual introduction of a test to screen for this illness.

Created in September 1998, Héma-Québec is still in full development mode. We have to plan for the future, build and adapt. There are numerous challenges ahead of us, and it is important to anticipate them. This very eventful period places heavy demands on all members of the team. We have to learn together and gain from our experiences.



The year 2002-2003 also marked Héma-Québec's signature of the first collective agreements in its history. These long-term agreements (up to six years in length), signed with four of its nine unions, introduce a new era in relations with our employees, one we want to be stable and harmonious.

Dr. Francine Décarry
Executive Director

In addition, Héma-Québec continued to maintain excellent relations with its volunteers, notably by crisscrossing Québec to attend information meetings about our activities and projects.

Claude Pichette
Chairman

Héma-Québec intends to forge ahead in order to attain its vision of being recognized as the North American leader in its field in 2005. Its new laboratories in Montréal, opened in 2002-2003, are already considered to be among the most modern blood facilities.

The year 2003-2004 is shaping up to be just as busy, and we are tackling it with enthusiasm.

More than ever at the leading edge of technology, Héma-Québec intends to pursue its work by equipping itself with the necessary tools to ensure a safe supply of blood products.

Thank you to the entire team for enabling Héma-Québec to accomplish its mission and participate in the well-being of Quebeckers.

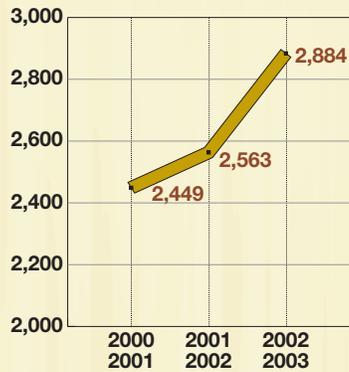
“**The year 2002-2003 was highlighted by the introduction of numerous new safety measures.**”

Operations

The majority of Héma-Québec's 1265 employees (including 850 full-time staff members) work in the Operations division. This group of employees is responsible for ensuring a continuous and high quality blood product supply to Québec's hospitals.

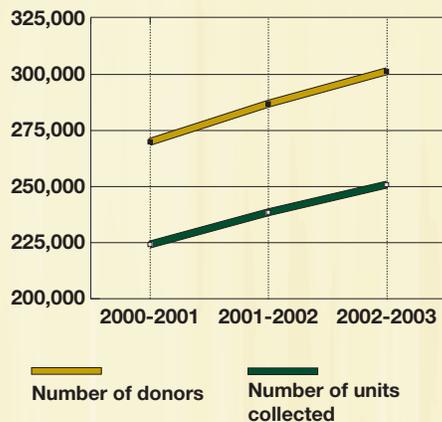
This objective was met once again in 2002-2003. During this period, Héma-Québec welcomed 301,421 donors to its permanent facilities and mobile blood donor clinics.

NUMBER OF BLOOD DONOR CLINICS



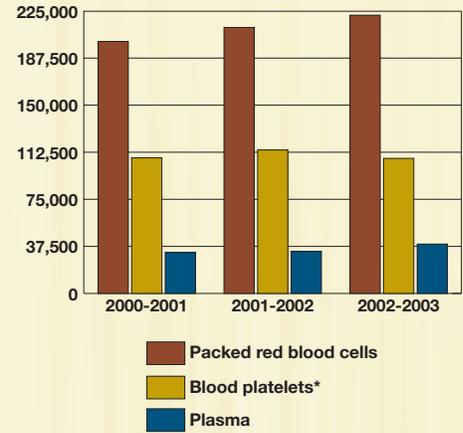
Through the generosity of our the donors—including 24,002 new donors—some 250,861 bags of blood were collected, meeting the increased demand by hospitals (a 4.6% increase over last year) and boost the inventory from a four to a six-day supply of blood to ensure an adequate stock to deal with emergency situations.

NUMBER OF UNITS COLLECTED AND NUMBER OF DONORS



Héma-Québec delivered 400,357 labile blood products to Québec hospitals during this period, including 221,659 units of packed red blood cells.

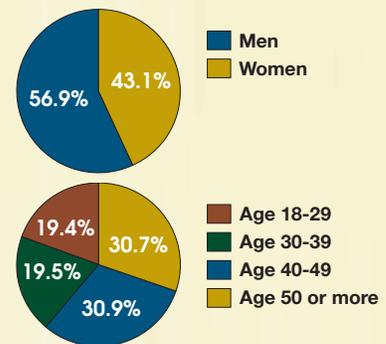
DELIVERIES TO HOSPITALS



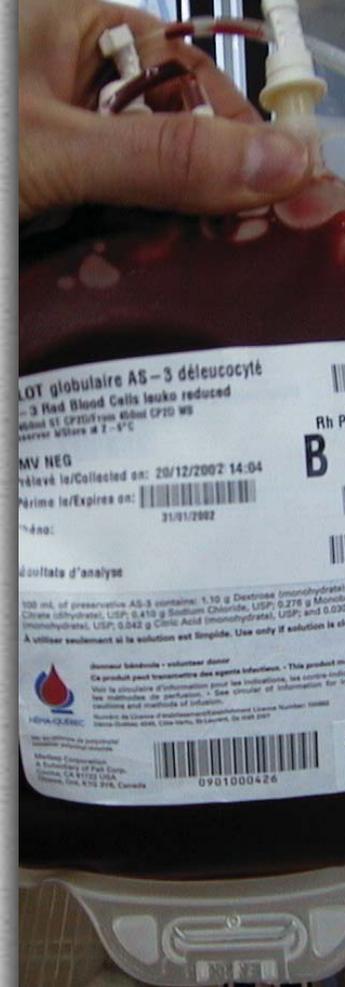
* Including the equivalent in platelets (thrombapheresis)

By gathering a few statistics, we learned that the majority of blood donors are male, aged 40 and older. The average number of donations varies depending on the type of donation made.

DONOR STATISTICS



	2000-2001	2001-2002	2002-2003
Allogeneic	1.35	1.53	1.59
Plasmapheresis	7.20	7.07	8.35
Thrombapheresis	2.46	2.73	5.45



In 2002–2003, the Operations division organized more than 20 information sessions with our blood drive organizers across Québec to inform them about Héma-Québec’s activities and projects. Through the sessions, personal relationships were established with these partners. The Operations division also explored new methods for blood collection in order to implement a more efficient supply strategy beginning in 2003–2004.

Client service is one of the four basic values of Héma-Québec. With this in mind, the Operations division continued the preparation of the “Positive Blood Donation Experience” project. The goal of this project is to completely overhaul the entire process leading up to the donation itself: familiarizing Héma-Québec staff with the project, modernizing and improving our facilities, researching and testing new equipment and tools, studying the serviceability of mobile clinics, managing traffic flow, developing new signage and improving the human aspect of the donation process. This project will be continued in 2003–2004.

In February 2003, Héma-Québec became the first organization in North America to use a bypass pouch during the blood collection process. This innovation is used to supply blood of even higher quality to hospitals. Since the needle’s contact with the skin is a source of bacterial contamination in spite of adequate disinfection, the first 42 millilitres of blood extracted from a donor will now be routed to a bypass pouch rather than the blood bag destined for hospitals. The Operations division supervised the implementation of an operational procedure and a training program to familiarize Héma-Québec employees with this new method of work.

In May 2002, over a period of three weekends, the Operations division supervised the smooth transition and continuity of service of all of Héma-Québec’s operational units during their move to the new Montréal facility. Héma-Québec took advantage of this move to implement a major technological change for its viral markers. Up until the move, two technologies were available for the systematic testing of five communicable disease markers. In May 2002, Héma-Québec became the first North American blood-product supplier to use the new PRISM® high precision technology.

PRISM is a continuous feed apparatus that can carry out simultaneously four of the five virus-detection tests used for HIV, HCV, HBV and HTLV, allowing to drastically improve the volume, efficiency and rapidity of the tests. Since this fully automated system conducts a number of operations that were handled manually in the past, it has led to a significant reduction in nonconformities with good manufacturing practices (GMP).

In November 2002, one procedure previously conducted by an external laboratory—nucleic acid testing (NAT)—was taken over completely by Héma-Québec. In order to conduct these tests, five environmentally controlled rooms were built in the new Montréal facilities. These tests, which detect HIV and the hepatitis C (HVC) virus, reduce the time between the onset of the infection and the moment when the viruses can be detected.

Also of note, on October 18, 2002, Héma-Québec was a finalist at the *Salon sur les meilleures pratiques d’affaires* sponsored by Mouvement Qualité Québec. The Operations division presented the “Operation TRANS/FUSION” project, which involved the transfer of the human resources and materials from 3131 Sherbrooke Street East and 1619 Trans-Canada Highway to 4045 Côte-Vertu Boulevard, and explained how this move was optimized. The Operations division also contributed to Héma-Québec’s influence by participating in the *Abbott PRISM, the Proven Solution, AABB 2002 International Interviews* video produced by Abbott Laboratories.



Today,

Mark's

life is back
on track.

14 TRANSFUSIONS

Medical Affairs

The Medical Affairs division, and its 77 employees, is the heart of Héma-Québec's scientific and technical expertise upon which the other departments can rely. It also includes an operational activities component.

A team of nurses and technicians is responsible for notifying and consulting with donors who tested positive for an infectious marker, studies of previous donations in relation to products that were possibly contaminated and investigations of potential post-transfusion infections.

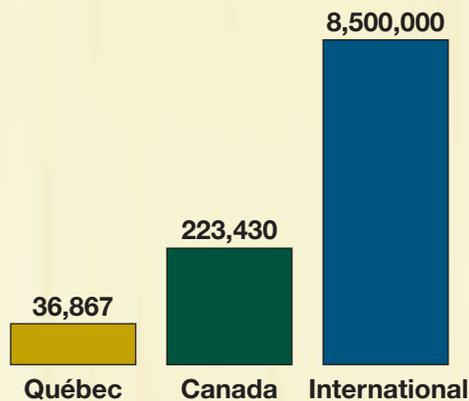
This division is also in charge of the laboratories that supply specialized products and services to hospitals, including phenotyped and/or washed blood, the reference service for complex cases of red blood cell and platelet in the hospital environment, the rare blood bank and the cryopreservation of hematopoietic stem cells for future transplants. Another team is in charge of recruiting bone marrow donors.

In 2002-2003, the Medical Affairs division responded to 6,890 requests for phenotyped blood by supplying 11,833 units. It also distributed 1,489 units of washed and packed red blood cells, conducted special analyses for 1,178 hospitalized patients and conducted human leukocyte antigen (HLA) tests on the surface proteins of the white blood cells of approximately 115 patients needing a bone marrow transplant. Some 2,440 new donors were added to the Unrelated Bone Marrow Donor Registry in 2002-2003, raising the number of registered Québec donors to a total of 36,687.

Very little data exists on what motivates blood donors. Héma-Québec's epidemiological unit launched two projects dealing with this subject in 2002-2003. The first project is being carried out in collaboration with the Retrovirus Epidemiology Donor Study (REDS) group from the United States, and the second is being conducted in concert with Université Laval in Québec City. The results of these studies will be available in 2003-2004.

In January 2003, Héma-Québec announced the creation of a public umbilical cord blood bank in collaboration with Hôpital Sainte-Justine and St. Mary's Hospital Center. Harvested from the umbilical cord and the placenta, cord blood allows for medullary transplants in patients suffering from potentially fatal diseases. Children waiting for bone marrow transplants will thereby have increased access to cord blood transplants.

NUMBER OF REGISTRANTS IN THE UNRELATED BONE MARROW DONOR REGISTRY



Finance and Administration

The Finance and Administration division employs approximately 60 employees and has five departments. Its role is to ensure the financial health of the organization through its management of budgets, cash position, accounting and purchases and is responsible for the administration of stable products. It also supports Héma-Québec's other divisions by looking after the financial aspect of projects, including calls for tender, negotiations with suppliers, equipment acquisition and purchase financing. Finally, it manages industrial safety with regard to facilities, assets, staff and visitors.

This division ensures the management of technical services related to equipment, infrastructure and buildings.



The Security Operations Centre of the Montréal facility.

After supervising the consolidation of Héma-Québec's activities in its new Montréal facility, the Technical Services department is now monitoring the progress of construction work at Héma-Québec's facility in Québec City. The Accounting, Purchasing and Warehousing, and Treasury departments are involved in this project in their respective spheres of activity.

In the wake of the repatriation of the autonomous management of stable products in April 2003, the Stable Products department reporting to the Finance and Administration division negotiated new agreements with some 10 suppliers of these products in the amount of \$130 million. This amount represents more than half of the organization's budget. Since 90% of stable-product purchases are carried out in US dollars, it was necessary to implement a cash plan.

This substantial increase in the volume of purchases and the implementation of a fee structure for Québec's hospitals led to the reorganization of the Finance and Administration division in 2002-2003. This exercise culminated in January with the creation of a Treasury department.

Information Technology

Héma-Québec's Information Technology Division is 50 members strong. Its responsibility is to implement technological solutions aimed at meeting the organization's operational needs and optimizing its business procedures. In addition to ensuring the smooth running of daily operations, this division completed some 15 projects simultaneously throughout 2002-2003 to meet the organization's ever-changing needs and regulatory requirements.

This division uses a project management framework to support the development and implementation of all new technological solutions or major changes. This is a solid base that allows for the achievement of desired results, respect for deadlines and budgets and meeting or surpassing quality and regulatory requirements.

The implementation of the automated Stable Products Information System (SPIS) was the Information Technology division's major project last year. It was part of Héma-Québec's program to repatriate the management of stable products from Canadian Blood Services. The use of SAP applications optimizes the management of agreements with suppliers of stable products, inventory control, reordering and management of distribution to hospitals.

Also this year, the automation of NAT, Anti-HBc and PRISM were major accomplishments for the IT division, allowing for the PROGESA blood management software package to evolve.

The major IT mandates for management systems were to upgrade SAP applications for finance, inventory and purchasing and to complete the technology outsourcing agreement for this system with CGI Group Inc.



Communications equipment that supports the computer network for part of the Montreal facility.

As for technology, the IT team was responsible for moving the computer equipment from 3131 Sherbrooke Street East to 4045 Côte-Vertu Boulevard in Montréal.

Finally, several steering committees—indispensable tools in communicating with users—were created to help manage the evolution of the production and management information systems while respecting business needs.



Today,

Debi

is in tune
with her life.

426 TRANSFUSIONS

Research and Development

The Research and Development division's approximately 50 employees are responsible for designing new products and services and supporting the Operations and Medical Affairs divisions in conducting operations research.

In 2002–2003, the Research and Development division produced almost 20 publications and posters. It also obtained an American patent for a new method of producing natural alpha interferon used to treat viral infections. Finally, this division presented some 15 papers at various scientific conventions held in Canada and the United States.

The Research and Development division's expertise has been recognized through the renewal of two grants that enable it to continue work on the action mechanisms of intravenous immunoglobulin, the major stable product distributed to hospitals. This important research is aimed at better targeting potential substitutes that could be prepared for this product. These grants, for an additional two years (to 2004), are awarded by the Bayer, Canadian Blood Services, Héma-Québec, Canadian Institutes of Health Research Partnership Fund.

One of the activities of this division is research education. In 2002–2003, the Research and Development division performed this task by supervising three graduate students, three doctoral students and one post-doctoral intern. We should add that two students who trained in Héma-Québec's laboratories received their Master of Science degrees.

The Research and Development division is also concerned about preparing the next generation of qualified workers. For this reason, Research and Development hosted 10 students—all recipients of scholarships offered by granting agencies or government programs—during the summer of 2002 at Héma-Québec's laboratories. The purpose was to give them the opportunity to complete a workplace practicum.

In the spring of 2003, two university-level interns also had the opportunity to hone their skills at the organization's facilities.

Since research activities are all concentrated in Québec City, the Research and Development division is called upon to play an important role in the planning of the new facility on the Université Laval campus.

The Research and Development division is also in charge of Groupe HÉMATECH's activities. The mandate of this testing group is to evaluate new techniques that might improve the quality and availability of blood components. The 2002–2003 year was very productive in this particular field, with the completion of projects carried out in collaboration with the Operations and Medical Affairs divisions. The most extensive project dealt with the screening of immune deficiency in Type A (IgA) immunoglobulin. This project allowed us to establish a register of 70 donors of blood components low in IgA, after having tested some 39,000 blood donors. Such a register will ensure the availability of blood products necessary for transfusion patients who are deficient in IgA. Groupe HÉMATECH has also successfully completed the evaluation of heat sealers usable for collecting and processing blood components.

In order to better reflect their respective activities, the names of the two departments were changed during the 2002–2003 year. The Research department is now called the Cellular Engineering department, and keeps the same mandate for developing blood substitutes for platelets and packed red blood cells. As for the Development department, it is now called the Operations Research department.



Human Resources

The mission of Héma-Québec's Human Resources division is to promote a work environment that respects individuals and contributes significantly to the achievement of organizational objectives. This division fulfils its mission by providing policies, programs and advice for managing individuals and teams.

In October 2001, Héma-Québec introduced a program for enhancing the skills of its executives based on the four fundamental values of the organization. As part of this program, nearly 80 Héma-Québec executives attended a training activity on problem solving. Presented as a two-day seminar, this training activity was provided by the Executive Education Centre at the École des Hautes Études Commerciales. The goal of the Human Resources division is to provide, in the medium term, two training activities for executives every year.

The Human Resources division also implemented the performance management program in 2002-2003. The goal of this program is to evaluate the performance of Héma-Québec's management and professional staff members compared with the results obtained and the key skills associated with the organization's values.

The Human Resources division also manages the staffing and the employee long-term service recognition program. In 2002-2003, Human Resources supervised the external selection and recruitment. It also organized two functions to honour the long-term service of some 130 employees.



From left to right: Dr. Francine Décary, Executive Director, Héma-Québec; Lucette Thibodeau; Diane Noiseux; Marthe Lapensée; Giselle Fontaine; and Roger Carpentier, Senior Director, Human Resources, during a staff recognition activity held in Montréal in February 2003. Ms. Giselle Fontaine received particular recognition for 45 years of service as a blood donor clinic assistant.

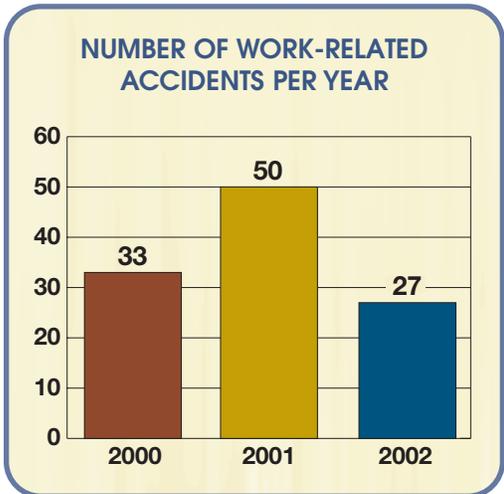
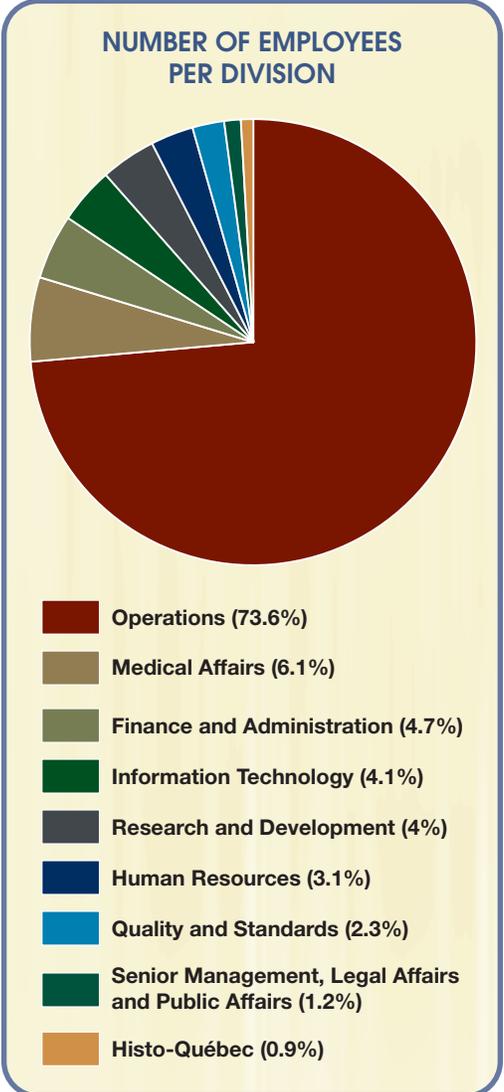


Nearly 900 of Héma-Québec's 1,265 employees are union members. In 2002-2003, for the first time in its history, Héma-Québec concluded collective agreements of extended length (five and six years) with four of its nine unions: locals 1987, 3897 and 3817 of the Canadian Union of Public Employees, as well as the Association professionnelle des technologistes médicaux du Québec.

Right from the outset of negotiations, the parties agreed to follow an interest-based approach (IBA). This approach places emphasis on the concerns and motivations related to each party's expectations, as well as the identification of the different options available for arriving at common solutions. This method is definitely more demanding in terms of time and energy, but it affirms Héma-Québec's desire to work as a partner with its staff and represents an investment in long-term stable and harmonious work relations.

For the sake of improving services to our employees, the Human Resources division streamlined, simplified and optimized all aspects of its administrative procedures related to pay and benefits by introducing new management tools. The pay-equity program that was introduced in 2002-2003 will be extended to cover the entire organization by fall 2003.

The year 2002 was, from a statistical point of view, Héma-Québec's best year for job health and safety. Following several management and prevention initiatives, there was a significant drop (50%) in the number of accidents and a reduction in cost of more than 60% compared with the preceding year.



Quality and Standards

The mandate of the 30 employees of the Quality and Standards division of Héma-Québec is to submit all initiatives related to product quality to Health Canada for approval. Regulatory requirements for product quality are extremely high. Any changes must, therefore, be submitted to Health Canada for prior approval before their implementation.

Several major projects such as the Stable Products Information System (SPIS), anti-HBc screening, the bypass pouch and the PRISM apparatus for screening viral markers were submitted to Health Canada for approval during the year.

For example, the request to Health Canada for approval to begin nucleic acid testing (NAT) required the preparation of 14 binders of documentation outlining the procedures for conducting the test as well as validating facilities, equipment and operations.

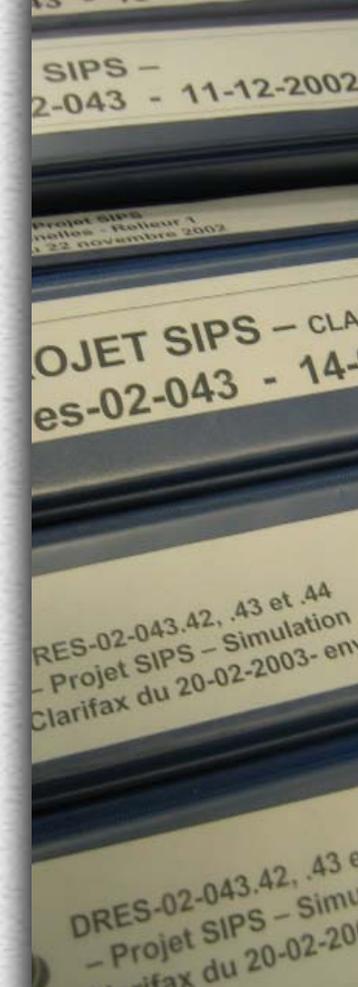
Héma-Québec's move to its new facilities in the borough of Saint-Laurent in May 2002 required a great deal of assistance from the Quality and Standards division for an entire year. The validation protocols for the new facilities had to be approved, from building temperature and humidity control to ventilation standards in a very short period of time. Furthermore, once the move had been completed, all of the equipment was subject to additional validation.

In 2003-2004, the Quality and Standards division will conduct the same operations when Héma-Québec moves to its new Québec City facility.

In 2002-2003, the Quality and Standards Division also supervised the establishment of a Documentation Centre at Montréal's facility and the centralization of quality monitoring activities at Québec City's facility. The Documentation Centre's mandate is to index, centralize and provide access to all documents edited, produced or acquired by the organization.



The Documentation Centre offers various services in document acquisition, staff and interlibrary loan collection management, documentation search, routing and reprography for articles from periodicals.



Since June 15, 2002, all quality control activities falling under the jurisdiction of the Quality Assurance department are performed at the Québec City facility. These activities include monitoring of the random sampling and analysis procedures based on pre-established quality parameters for various products. The goal is to ensure that blood components meet the standards in force with respect to safety and effectiveness. The centralization of the quality control activities promotes improved uniformity of the procedures.

From June 2002, to March 2003, no fewer than 7,650 products were sent to Quality Control, a period during which 16,449 test results on these products were gathered. This move to centralize quality control operations provided

an opportunity to introduce new tests and technologies with the acquisition of four state-of-the-art apparatuses. The Cell-Dyn 3200 system is used to carry out hematocrits on packed red blood cells in CPDA-1 blood bags, white cell counts on granular pheresis, platelet counts on platelet concentrates and thrombapheresis.

The ACL 7000 analyzer is used to establish factor I (fibrinogen cryoprecipitate) dosages as well as factor VIII dosages of fresh frozen plasma prepared from whole blood or by apheresis and from cryoprecipitates. The FACSCalibur machine is used to count the residual white blood cells in the packed red blood cells, platelet concentrates and thrombapheresis. As for the BacT-Alert apparatus, it is used for sterility tests on labile products.

Blood Component Quality Control

2002-2003

Type de produits (n = number)	Analyses performed	% Conformity	Acceptable values	Acceptable percentages
AS-3 units (n=601)	Residual leukocytes	100%	< 5.0 x 10 ⁶ /bag	100% of bags tested
	Sterility	100%	No contamination	100% of bags tested
Platelet concentrate (n=1,130)	Residual leukocytes	100%	< 5.0 x 10 ⁶ /bag	100% of bags tested
	Platelet count	82%	≥ 5.5 x 10 ¹⁰ /bag	75% of bags tested
	pH	100%	≥ 6,0	100% of bags tested
	Sterility	99.9%*	No contamination	100% of bags tested
Thrombapheresis (n=704) (n=3,838)¹	Residual leukocytes	100%	< 5 x 10 ⁶ /bag	100% of bags tested
	Platelet count ¹	93%	≥ 3.0 - 5.1x10 ¹¹ /bag	75% of bags tested
	Sterility	100%	No contamination	100% of bags tested
Granular pheresis (n=43)	White blood cell count	91%	≥ 1.0 x 10 ¹⁰ /bag	75% of bags tested
	Sterility	100%	No contamination	100% of bags tested
Cryoprecipitate (n=301)	Fibrinogen	100%	≥ 150 mg /bag	75% of bags tested
Fresh frozen plasma (n=307)	Factor VIII	83%	> 0.7 I.U./mL	75% of bags tested
Apheresis fresh frozen plasma (n=139)	Factor VIII	91%	> 0.7 I.U./mL	75% of bags tested
	Sterility	100%	No contamination	100% of bags tested

* Staphylococcus capitis

Histo-Québec

Following the acquisition of the assets of the Centre de conservation de tissus humains du Québec in December 2001, Héma-Québec became the only organization in Canada to deal with both blood and human tissues. This acquisition led to the creation of the Histo-Québec division in May 2002. The mandate of this new entity (which has 10 employees) is to act as the supplier of human tissue in Québec.

Handling human tissue presents risks similar to those which Héma-Québec is used to dealing with in the treatment of blood products. Héma-Québec is already involved in this field, since it is also involved with the preservation of another human tissue: bone marrow.

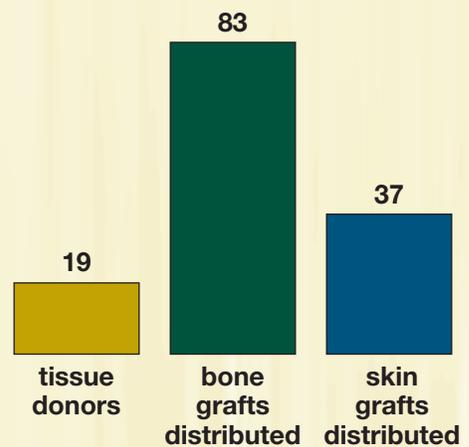
Histo-Québec temporarily interrupted its human tissue collection activities in November 2002 in order to upgrade its quality systems. At this time, an external group of experts in the tissue field conducted an audit of Histo-Québec's activities during fall 2002.

However, Histo-Québec continued to provide previously collected human tissues (those collected after its inception in 2002-2003). In February 2003, it resumed operations for harvesting hearts for the production of cardiac valves. The collection of other tissues should resume in 2003-2004.

Histo-Québec is also preparing its application for certification with the American Association of Tissue Banks with a view to obtaining external recognition. It is anticipated that this certification will be granted in 2003-2004.

The management of a human tissue bank poses specific challenges, given the nature and the inherent constraints of the product. Tissues are a biological product that can generate a greater diversity of products from the same donor than a blood donation. Tissues must be removed within 24 hours of the death of the donor, which requires a permanent and mobile infrastructure with staff available to travel at all hours.

ACTIVITIES 2002-2003



Simple and easy to remember, the name Histo-Québec refers to the Greek root "Histo" (tissue), which clearly indicates the nature of this division's activities.

Histo-Québec has its own corporate identity since its clientele is not the same as Héma-Québec's. The human figure, representing the whole of the human body, indicates that Histo-Québec wants to respond to the needs of the population. The stylized letter Q places the human figure between parentheses, surrounding it completely and representing Histo-Québec's concern for people.

The use of blue and red is consistent with Héma-Québec's colours. Blue represents hope whereas red characterizes the urgency and importance of its needs. The logo is, in fact, very similar to Héma-Québec's logo, and clearly indicates the relationship between the two entities.



Public Affairs

The Public Affairs division and its seven employees, including the Communications department, are responsible for Héma-Québec's image, particularly through the distribution of information and the promotion of events linked to corporate activities.

The Public Affairs division was particularly busy in 2002–2003. It was responsible for the communications activities involving the move to our new complex in Montréal in May 2002. Recognized as one of the most modern blood facilities in North America, Héma-Québec's new laboratories were visited on three different occasions by American blood bank representatives who expressed their intention to draw on them for inspiration in the design of their new laboratories.

The Public Affairs division was actively involved with the Association of Blood Donation Volunteers (ABDV) in organizing the first North American convention of the International Federation of Blood Donors. This convention, which was held in Québec City in May 2002, was an opportunity to welcome blood donors from approximately 50 countries. The IFBDO took the opportunity to present Héma-Québec's executive director with the Medal for the International Merit of Blood.

In collaboration with Canadian Blood Services, the Public Affairs division helped organize the International Society of Blood Transfusion (ISBT) convention, which was held in Vancouver in August 2002. Héma-Québec's executive director, Dr. Francine Décary, became President-elect of this prestigious association at that time. In addition, Dr. Décary was awarded the Ortho Prize for her contribution to the Canadian blood system by the Canadian Society for Transfusion Medicine.

As Héma-Québec celebrated its fourth anniversary, the Public Affairs division organized the official opening ceremony for the new Montréal facilities with representatives of all levels of government and several hundred guests in attendance.

In October 2002, the Public Affairs division organized two one-day-long training sessions called "Halte-Ressources" for all staff members in Montréal and Québec City.

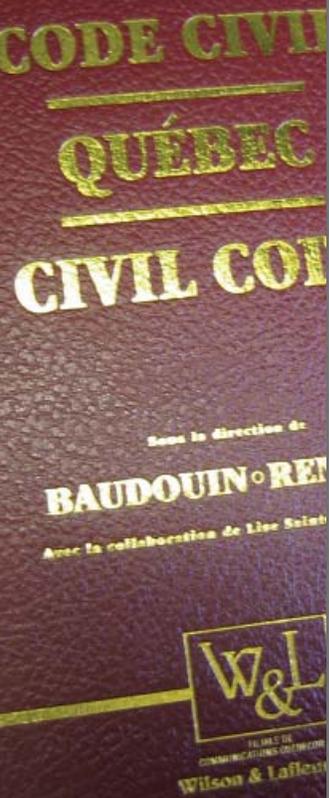
In January 2003, the Public Affairs division co-ordinated the activities surrounding the press conference to announce the creation of a public umbilical cord blood bank.

The restructuring of the Communications department also allowed for the creation of new internal and external communication action plans to be implemented in accordance with corporate goals. As for media relations, the Public Affairs division prepared more than 300 press releases for blood donor clinics and about 10 press releases dealing with corporate affairs. Division spokespersons responded to more than 200 media requests for information, including an in-depth report on 5 sur 5, a Radio-Canada television program. In addition to the media coverage received for blood donor clinics, some 60 articles dealing with Héma-Québec activities appeared in print media.

As for the electronic distribution of information, it should be noted that each year several thousand updates and improvements are made to Héma-Québec's Web site. On average, the site has some 6,500 visits by Internet users every month. Of this total, about 100 requests for information are sent to us by e-mail.

With regard to printed matter, the Public Affairs division is also responsible for the publication of internal and external news bulletins as well as the annual report. Each new Héma-Québec project or achievement is the topic of communications from the division. In 2002–2003, 34 internal bulletins dealing with various topics were published.





Legal Affairs

The Legal Affairs division provides legal advice for all of Héma-Québec's activities. During 2002-2003, it drafted or revised some 50 contracts. More specifically, Legal Affairs was involved in the negotiation and preparation of nine agreements with stable product suppliers, all as part of the transfer of stable product management to Héma-Québec.

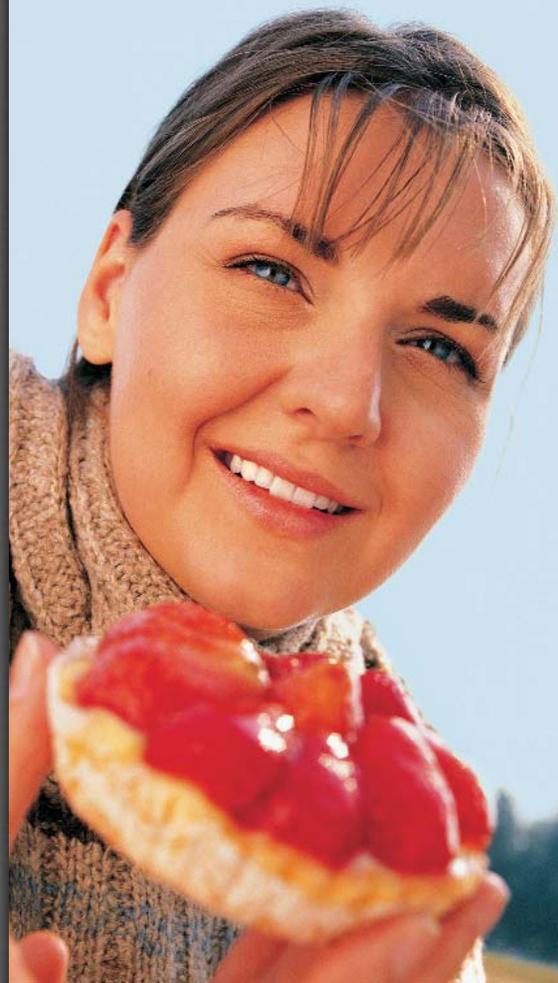


The Legal Affairs division collaborated on the relocation of Québec City's facility by participating in the preparation of an agreement with Université Laval to allow the future site of the facility to be located on its campus. It also participated in finalizing an agreement on the collaboration between Héma-Québec and Université Laval research scientists.

In addition, the Legal Affairs division is responsible for Héma-Québec's corporate administration. It organized 19 different board and board sub-committee meetings in 2002-2003, and is also responsible for keeping the organization's minute book.

The Legal Affairs division formalized a risk management policy that integrates the precaution principle into risk management. This policy follows the recommendations of the Final Report of the Commission of Inquiry into the Canadian Blood Supply led by the Honourable Justice Horace Krever for the application of the precaution principle in the matter of risk management in the blood supply field.

Today,
Audrey
savours every
minute of her life.



3 TRANSFUSIONS

Corporate and Scientific Papers and Presentations

7TH EUROPEAN SYMPOSIUM ON PLATELET, GRANULOCYTE AND RED CELL IMMUNOBIOLOGY, BELGIRATE, ITALY, APRIL 2002

POSTER

Goldman M., Trudel E., Richard L., Spurl G., Khalife S. "Neonatal alloimmune thrombocytopenia due to anti-HPA-2b (anti-Koa)."

16TH SPRING MEETING OF THE CANADIAN SOCIETY FOR IMMUNOLOGY, COLLINGWOOD, CANADA, APRIL 2002

POSTERS

Fecteau J.F., Roy A., Néron S. "Cooperative Interactions between Human Memory and Naive B-Cells in the CD154 System."

Jacques A., Bazin R. "Production and Analysis of Antigen-Specific Antibodies Produced by in vitro Culture of Human B Cells."

COLLOQUE PROVINCIAL EN MALADIES INFECTIEUSES, QUÉBEC, CANADA, APRIL 2002

PAPER UPON INVITATION

Germain M. « Conférence consensus sur le processus de sélection des donneurs de sang. »

NATIONAL BLOOD SAFETY COUNCIL MEETING, QUÉBEC, CANADA, APRIL 2002

PAPER UPON INVITATION

Décary F. "Emergency Preparedness and the Blood System in Canada - Decision Making Process and Lessons Learned."

17TH CONFERENCE OF THE INTERNATIONAL FEDERATION OF BLOOD DONOR ORGANIZATIONS (IFBDO), QUÉBEC, CANADA, MAY 2002

PAPERS UPON INVITATION

Blais J., Daigneault S. « Le programme humanitaire au cœur du programme du sang. »

Décary F. « Héros anonyme, Donneur de sang. »

AMERICA'S BLOOD CENTERS CONGRESS, MEMPHIS, UNITED STATES, JULY 2002

PAPER UPON INVITATION

Décary F. "Hemovigilance in Québec."

27TH CONGRESS OF THE INTERNATIONAL SOCIETY OF BLOOD TRANSFUSION (ISBT 2002), VANCOUVER, CANADA, AUGUST 2002

WORKSHOP UPON INVITATION

Richard L. "11th ISBT Platelet Workshop."

CONFERENCE UPON INVITATION

SYMPOSIUM ON CELL AND PROTEIN BIOLOGY REVIEW Côté S. "Apoptosis."

PAPER

Bazin R., St-Amour I., Proulx C., Lemieux R. "Promiscuous Binding of a Human Anti-D Heavy Chain with Light Chains of Non-Immunized Donors."

PAPER UPON INVITATION

Bernier F. "PRISM® implementation; from validation to daily routine."



**27TH CONGRESS OF THE
INTERNATIONAL SOCIETY OF BLOOD
TRANSFUSION (ISBT), VANCOUVER,
CANADA, AUGUST 2002 (cont.)**

PAPERS

Daigneault S. "Comparative study of the result of various direct marketing strategies for mobilizing blood donors."

Daigneault S. "Marketing program for new Globule concept - Blood donor center at Place Versailles."

PAPERS UPON INVITATION

Décary F. "Management of scarce resources : Principles."

Décary F. "Who is responsible for what : Accountability in a Blood System."

PAPERS

Germain M., Gélinas S. "Characteristics and Return Rate of First-Time Donors Following the September 11 Events."

Germain M., Gélinas S., Daigneault S., Blais J., Décary F. "A Randomized Trial to Evaluate the Effectiveness of a Targeted Mail Marketing Strategy to Retain First-Time Donors."

PAPER UPON INVITATION

Goldman M. "Symposium on bacterial detection methods. Challenges in Developing a Bacterial Detection System."

PAPER

Lamoureux J., Aubin É., Beaulieu C., Lemieux R. "Autoimmune Reactivity of Normal Human Serum in Presence of Therapeutic Amounts of Intravenous Immunoglobulins (IVIg)."

PAPER UPON INVITATION

Richard L., Goldman (M.), Trudel (E.). "Summary of the ISBT Platelet Workshop."

POSTERS

Chevrier M.C., Châteauneuf I., Lemieux R. "New Murine Anti-Human IgG Monoclonal Antibodies for Use in Routine Anti-Human IgG Indirect RBC Agglutination Assays."

Deschênes Dion S., Laplante J., Goldman M. "Probable Parvovirus B19 transmission by red cell transfusion."

Jung D., Néron S., Fecteau J., Drouin M., Roy A.. "Recombinant Multimeric CD154 Induce Human B Cell Proliferation."

Néron S., De Grandmont M.J., Racine C., Lemieux R. "Involvement of Fc Region in B Lymphocytes Induced to Differentiate by Intravenous Immunoglobulin (IVIg)."

Proulx C., Boyer L., Lemieux R.. "Negative Effect of Endogenously Produced TGF-beta1 on Megakaryocyte and Platelet Production in ex vivo Expansion Cultures of Cord Blood CD34+-Enriched Cells."

St-Louis M., Perreault J., Lemieux R. "Extended Blood Grouping of Blood Donors using Automatable PCR-ELISA Genotyping."

Thibault L., Beauséjour A., De Grandmont M.J., Dumas G., Chevrier M.C., Châteauneuf I. "Evaluation of a New Enzyme Immunoassay to Screen Blood Donors for IgA-Deficiency."

Thibault L., De Grandmont M.J., Beauséjour A., Long A., Allard B. "An Enzyme Immunoassay for the Detection of Anti-IgA in Blood Donors."



Papers and
Presentations



**FOOD AND DRUG
ADMINISTRATION WORKSHOP
(FDA), BETHESDA, UNITED STATES,
AUGUST 2002**

PAPER UPON INVITATION

Goldman M., Hume H., Sher G.
"Hemosurveillance of Bacterial
Contamination in Canada."

**GORDON RESEARCH
CONFERENCE -
IMMUNOCHEMISTRY AND
IMMUNOBIOLOGY 2002,
ANDOVER, UNITED STATES,
AUGUST 2002**

POSTER

Fecteau J.F., Roy A., Néron S. "CD27+
and IgG+ B Cells Can Be Generated
from CD27- B Cells upon CD40
Stimulation."

**26TH ANNUAL MEETING OF THE
SOCIETY FOR JAPANESE BLOOD
PROGRAMME, JAPAN,
SEPTEMBER 2002**

PAPER UPON INVITATION

Décary F. "Reorganization of the Blood
Program in Canada."

**NATIONAL BLOOD SAFETY
COUNCIL MEETING, EDMONTON,
CANADA, SEPTEMBER 2002**

PAPERS UPON INVITATION

Germain M.. "Blood supply and
demand."

Daigneault S. "Donors : Meeting the
challenge of an adequate safe supply
of blood."

**AMERICAN ASSOCIATION OF
BLOOD BANKS ANNUAL MEETING
(AABB), ORLANDO, UNITED
STATES, OCTOBER 2002**

PAPERS UPON INVITATION

Bernier F. "PRISM® implementation;
from validation to daily routine."

Décary F. "Introduction of PRISM®
at Héma-Québec."

Goldman M. "Implementation of
a Bacterial Detection Method."

**CANADIAN ASSOCIATION
OF BROADCASTERS (CAB),
MONTRÉAL, CANADA,
OCTOBER 2002.**

PAPER UPON INVITATION

Blais J. « L'importance des gratuités
sur les ondes radios. »

**NATIONAL MARROW DONATION
2002 COUNCIL MEETING (NMD),
MINNEAPOLIS, UNITED STATES,
OCTOBER 2002**

POSTER

Dalle J.H., Duval M., Moghrabi A.,
Campbell B., Hume H., Wagner E.,
Vachon M.F., Roy D., Goldman M.,
Champagne M.A. "Comparative
outcome of unrelated hematopoietic
stem cell transplantation (HSCT) with
cord blood (CB) vs bone marrow (BM)
in pediatric recipients."

**BLOOD FORUM "RENEWING
CANADA'S COMMITMENT TO A
BLOOD SYSTEM FOR THE 21ST
CENTURY", TORONTO, CANADA,
NOVEMBER 2002**

PAPER UPON INVITATION

Décary F. "Héma-Québec : Changes
implemented since September 28, 1998."

**CANADIAN ANEMIA INSTITUTE,
TORONTO, CANADA,
NOVEMBER 2002**

PAPER UPON INVITATION

Roch A. « La mise en place de la structure du système du sang. »

**JOURNÉES ANNUELLES DE SANTÉ
PUBLIQUE, QUÉBEC, CANADA,
NOVEMBER 2002**

PAPER UPON INVITATION

Delage G. « Principe d'ouverture et de transparence : l'exemple d'Héma-Québec. »

**42ND AMERICAN SOCIETY FOR
CELL BIOLOGY ANNUAL
MEETING, SAN FRANCISCO,
UNITED STATES, DECEMBER 2002**

POSTERS

Jung D., Drouin M., Néron S., Roy A. "Targeted Adenovirus Gene Transfer to Normal Human B Lymphocytes by Using Bispecific Antibodies."

Habel M.É., Drouin M., Jung D. "Proteins Involved in Maintenance of an Episomal-Bicistronic Vector in Human and Murine Cells."

**17TH TRANSFUSION MEDECINE
CONFERENCE, JAPAN,
JANUARY 2003**

PAPERS UPON INVITATION

Décary F. "Hemovigilance in Canada - Hemovigilance organization in the Province of Quebec."

Décary F. "Blood Program in Canada - Current status of the Quebec Blood System."

**RÉGIE DE L'ASSURANCE-
MALADIE DU QUÉBEC, QUÉBEC,
CANADA, JANUARY 2003**

PAPER UPON INVITATION

Germain M. « Enquêtes sur les produits transfusés: responsabilités et rôles d'Héma-Québec. »

**COMITÉ PERMANENT DE LA
SANTÉ, OTTAWA, CANADA,
FEBRUARY 2003**

PAPER UPON INVITATION

Décary F. « Héma-Québec et le virus du Nil occidental. »

**CONFÉRENCE DE CONSENSUS
SUR LE DÉPISTAGE DE LA VMCJ
CHEZ LES DONNEURS DE SANG,
MONTRÉAL, CANADA,
MARCH 2003**

Delage G. Présidence.

**PAPER TO ROCHE DIAGNOSTICS,
MILAN, ITALY, MARCH 2003**

PAPER UPON INVITATION

Décary F. "Testing blood donors with NAT - Héma-Québec's experience."

**"ADVANCED RISK MANAGEMENT
TECHNIQUES, STRATEGIES AND
MODELLING PRACTICES: BLOOD
SAFETY ", HEALTH CANADA,
OTTAWA, CANADA, MARCH 2003**

PAPER UPON INVITATION

Germain M. "A brief history of mathematical modelling and transfusion safety."



Publications

Bouillon M., Aubin É., Roberge C., Bazin R., Lemieux R. (2002) Reduced Frequency of Blood Donors with False-Positive HIV-1 and -2 Antibody EIA Reactivity After Elution of Low-Affinity Nonspecific Natural Antibodies. *Transfusion* 42 (8) : 1046-1052.

Chiavetta J.A., Deeks S., Goldman M., Hannon J., Leach-Bennett J., Megânn H., O'Brien S., Webert K. (2003) Proceedings of a Consensus Conference: Blood-Borne HIV and Hepatitis - Optimizing the Donor Selection Process. *Transfusion Medicine Reviews* 17 (1) : 1-30.

Côté S. (2002) An Overview of Apoptosis in Blood Transfusion. *Vox Sanguinis* 83 (Suppl. 1) : 371-374.

Côté S., Simard C., Lemieux R. (2002) Regulation of Growth-Related Genes by Interleukin-6 in Murine Myeloma Cells. *Cytokine* 20 (3) : 113-120.

De Grandmont M.J., Racine C., Roy A., Lemieux R., Néron S. (2003) Intravenous Immunoglobulins Induce the in vitro Differentiation of Human B Lymphocytes and the Secretion of IgG. *Blood* 101 (8) : 3065-3073.

Engelfriet C.P., Reesink H.W., Kroll H., Giers G., Bald R., Kanhai H., Kekomäki R., Teramo K., Panzer S., Ulm B., Jilma P, Bock J., Taaning E., Rodeck C.H., David M., Goldman M., Décarry F., Kaplan C. (2003) International Forum: Prenatal management of alloimmune thrombocytopenia of the fetus. *Vox Sanguinis* 84 : 142-149.

Germain M., Goldman M. (2002) Blood Donor Selection and Screening: Strategies to Reduce Recipient Risk. *Am J Therapeut* 9 : 406-410.

Germain M., Remis R.S., Delage G. (2003) The risks and benefits of accepting men who have had sex with men as blood donors. *Transfusion* 43 : 25-33.

Goldman M. (2002) Challenges in Developing a Bacterial Detection System. *Vox Sanguinis* 83 (suppl. 1) : 125-127.

Goldman M., Blajchman M.A. (2003) Bacterial Infections. In: Hillyer (C.D.), Silberstein (L.E.), Ness (P.M.), Anderson (K.C.), Roush (K.S.) ed. *Blood Banking and Transfusion Medicine. Basic Principles & Practice*. Elsevier Science : 487-496.

Goldman M., Lavoie P., Long A., Hume H. (2002) A designated donor program to limit donor exposure in chronically transfused children/Un programme de dons désignés pour limiter l'exposition aux donneurs chez des enfants avec un besoin de transfusions chroniques. *CSTM Bulletin* 14 : 19-25.

Goldman M., Savard R., Long A., Gélinas S., Germain M. (2002) Declining value of preoperative autologous donation. *Transfusion* 42 : 819-823.

Hebert P.C., Fergusson D., Blajchman M.A., Wells G.A., Kmetz A., Coyle D., Heddle N., Germain M., Goldman M., Toye B., Schweitzer I., Vanwalraven C., Devive D., Sher G.D. (2003) Clinical outcomes following institution of the canadian universal leukoreduction program for red blood cell transfusions. *JAMA* 289 (15) : 1941-1949

Jung D., Côté S., Drouin M., Simard C., Lemieux R. (2002) Inducible Expression of Bcl-XL Restricts Apoptosis Resistance to the Antibody Secretion Phase in Hybridoma Cultures. *Biotechnol Bioeng* 79 (2) : 180-187.

Lamoureux J., Aubin É., Lemieux R. (2003) Autoimmune Complexes in Human Serum in Presence of Therapeutic Amounts of Intravenous Immunoglobulins. *Blood* 101 (4) : 1660-1662.

Publications (cont.)

Loembé M.M., Néron S., Delage R., Darveau A. (2002) Analysis of Expressed VH Genes in Persistent Polyclonal B Cell Lymphocytosis Reveals Absence of Selection in CD27+IgM+IgD+ Memory B Cells. Eur J Immunol 32 (12) : 3678-3688.

Long A., Tremblay L., Richard L., Lemieux R., Goldman M. (2002) Nondetection of the S Antigen Due to the Presence of Sodium Hypochlorite. Immunohematology 18 (4) : 120-122.

St-Amour I., Proulx C., Lemieux R., Bazin R. (2003) Modulations of Anti-D Affinity Following Promiscuous Binding of the Heavy Chain with Naive Light Chains. Transfusion 43 (2) : 246-253.

Patent

Réal Lemieux, Sonia Néron, Chantal Proulx. Method of producing human IFN-alpha using Sendai virus-infected hematopoietic stem cells. United States Patent #US 6472208, October 29, 2002.

