Enhancing Tissue Banking in Canada

Phase I: Sustainability

November 23-24, 2006
Montréal, Québec

Task Force Report
Enhancing Tissue Banking in Canada, Phase I: Sustainability. This report contains recommendations that must be assessed in the context of a full review of applicable medical, legal and ethical requirements in any individual case. The views expressed herein do not necessarily represent the views of the CCDT and/or the Federal, Provincial or Territorial governments of Canada.

Production of this advice/report has been made possible through a financial contribution from Health Canada.
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Part I:

Overview
Introduction

The Canadian Council for Donation and Transplantation (CCDT) was established in October 2001 as a key component of a coordinated federal/provincial/territorial strategy to improve organ and tissue donation and transplantation in Canada. The CCDT is an independent, not-for-profit corporation mandated to provide advice to the Conference of Deputy Ministers of Health in support of its efforts to coordinate federal, provincial, and territorial activities relating to organ and tissue donation and transplantation.

The purpose of the Task Force on Enhancing Tissue Banking (ETB) in Canada is to engage stakeholders in a collaborative process that will result in an issues-based approach to strategic action aimed at enhancing tissue-banking sustainability. This will improve access to and quality of tissue for patients as well as instill greater public confidence in the tissue system.

On November 23-24, 2006, 30 experts from across Canada attended the first in a series of task force meetings on ETB. The focus of the meeting was sustainability, with other key issues identified for future consideration being traceability, accreditation, and emerging technologies. This report describes the results of that meeting.

Opening Remarks

Kimberly Young, Chief Executive Officer of the CCDT, welcomed participants to the first national meeting on tissue banking to be held in Canada. She acknowledged the vital role of the participants in making recommendations for change as well as the efforts of Dr. Marc Germain (Chair of the CCDT Tissue Committee) and the CCDT Tissue Committee (TC) members in laying the groundwork for the meeting.

Ms. Young also spoke of the CCDT’s role in bringing people together to share their expertise and gave examples of its recent successes, including the completion of over 120 knowledge products, reports, and guidelines, and the provision of a significant number of recommendations to deputy ministers. She emphasized the importance of advocating for change as a single voice and reiterated the CCDT’s commitment to hosting more task force meetings in the future.

Dr. Germain, Vice-President of Human Tissues at Héma-Québec, opened the meeting by touching on the work of the CCDT and its TC to date. He noted that information-gathering on the subject of tissue banking in Canada has been a primary focus and that tissue banking itself has evolved rapidly over the past few years. He explained that the meeting was an opportunity for experts from across the country to get together to discuss their most pressing issues. He encouraged active participation in the process, adding that those in attendance had the power to make a significant difference by providing advice to the CCDT, which, in turn, advises federal and provincial/territorial policy makers.

Dr. Germain noted that the following issues have already been identified by the TC:

- Regulatory compliance of smaller tissue banks.
- Lack of access to required serology tests, leading to delayed surgeries and lost opportunities.
- Reliance on U.S. imports, which contribute 80 to 90 per cent of the tissue used in Canada.
Enhancing Tissue Banking in Canada: Phase I–Sustainability

- Lack of capacity to meet full donation potential.
- Discrepancies in accessibility to tissue, with some regions dealing with major shortages of some tissues such as corneas and heart valves.
- Location of tissue banks primarily in large urban centres, which has access implications.
- Increased wait times for corneas in most of Canada.
- Lack of capacity to manufacture specialized products, such as lyophilized bone and demineralized bone.
- Management of tissues at the hospital level (storage, traceability, adverse-event monitoring).
- Surveillance.

He identified the following as potential post-meeting opportunities:
- National sharing of certain tissues with limited availability.
- Recovery agreements with experienced processors.
- Development of infrastructure to meet demand.
- Improvement of hospital tissue services (inventory management, traceability).
- National dissemination of knowledge/information.

**Meeting Objectives**

The objectives of the meeting were to:
- Develop a framework for strategic issues related to the sustainability of tissue banking in Canada;
- Identify and describe each strategic issue and any relevant challenges in relation to access, quality and safety, and accountability;
- Develop a five-year vision (2012) for tissue-banking sustainability in Canada;
- Discuss and identify new and emerging issues (beyond 2012) related to the long-term sustainability of Canada’s tissue-banking systems;
- Share background information; and
- Establish a baseline of practice through consultation with stakeholders.

The meeting did not include strategies to maximize tissue donation, which is already being examined by the CCDT Donation Committee. Issues related to traceability and biovigilance (the monitoring of adverse events in recipients of blood, organ, tissue, and other products derived from a human source) were also not covered, as they are being given separate attention by the CCDT.
Participant Introductions

As participants introduced themselves, they were asked to identify one characteristic of a high quality, sustainable Canadian tissue system that they would like to see in place by 2012. Following is a summary of their responses:

- Canada’s emergence as a world leader in tissue banking.
- Maximized donation potential with a robust donation and recovery system that includes a focus on families for deceased donation.
- Consistency in donor procedures and criteria, emphasis on patient safety, and more thinking outside of “legalistic statutory standards” in order to overcome barriers.
- Increased involvement by professional groups.
- A state-of-the-art national blood serology centre.
- A standardized tissue-banking system that resembles the blood system with respect to coordination, networking, efficiency, expertise, renewed public confidence, etc.
- Enhanced communication, including:
  - an accurate picture of what is happening and who is involved in tissue banking in Canada,
  - a consistent and transparent method of bringing messages forward, and
  - more information-sharing on a national level.
- Increased resources within a cost-effective system.
- Clear guidelines for operating programs including an emphasis on open relationships to promote sharing.
- Control over the distribution of all human tissues for transplantation in our jurisdiction.
- A formal tissue-banking school.
- An established system for obtaining quality tissue, primarily from Canadian sources.
- A process that compliments the work of the American Association of Tissue Banks (AATB) rather than duplicates it.
- Recognition by governments of tissue donation and transplantation as being at the same level of importance as organ transplantation.
- A Canadian accreditation body that recognizes the important contributions to the system of smaller tissue banks.
Background Information and Evidence

Two presentations and several background documents provided a shared information base for participants at this meeting.

Presentation: Benchmarking—International Perspectives

Scott Brubaker, Chief Policy Officer of the AATB, gave a talk on international tissue-banking perspectives and benchmarking. He provided an overview of tissue-banking organizations around the world and their functions, the purpose of international comparisons, and an environmental scan of funding models and resources at member banks and the impacts of standards. He wrapped up his presentation by touching on some of the major issues affecting international tissue banks and tissue distribution in general.

During questions and answers following the presentation, it was noted that new Health Canada regulations are expected to be finalized in 2007, that, once enacted, will define industry requirements, including those for registration and attestation.

Presentation: Tissue Banking in Canada

Jim Mohr, Manager of the Regional Tissue Bank in Halifax, spoke of current Canadian practices in tissue banking. His talk began with an overview of the status of the industry in 2002, when tissue banking was unregulated and facing the challenges of a growing number of transplants and technological advances. He then reviewed lessons learned since that time and outlined the current environment in Canada, where close to 60 per cent of tissue usage is by the dental industry and surgical bone is emerging as an area of significant potential. Other topics covered included current and emerging funding models in Canada; Canada’s growing reliance on external relationships; issues and challenges related to access and safety; strengths and successes of the current system; and challenges for 2012.

After the presentation, the plenary was opened for questions and answers, during which time the following points were made:

- A number of tissue banks in Canada have already formed partnerships with American groups. There are some very solid, world-leading players in the U.S.; Canada needs to find ways to capitalize on the U.S. infrastructure and to benefit from American expertise.
- We need a Canadian procurement system.
- If the availability of tissue ever exceeds need, the community will have to examine criteria to ensure that donations are not being driven by financial motivation.
- Canada should strive to be self-sufficient and accept other solutions only if this option is not feasible.
Background Documents

Participants were provided with a number of CCDT executive summaries and reports and a list of key terms in advance of the meeting. This background information served as the basis for discussions in small groups and plenary. The following reports were included:

Part II:
Enhancing Tissue Banking—Issues and Vision
Strategic Issues

The facilitator commented that, although the CCDT TC identified four overarching priorities concerning tissue banking (access, quality, accountability, and sustainability), the purpose of this meeting was to focus solely on the sustainability of a national tissue-banking system.

Within sustainability, the Committee identified six strategic issues that are major areas CCDT has committed to provide advice on and that require collaboration among stakeholders:

- Surgical bone banking.
- Importation.
- Self-sufficiency (including serology testing).
- Advanced tissue products.
- Best practices to standardization.
- Access to high-demand tissue.

The criteria used to select these issues were as follows:

- Identification in TC work.
- Urgency.
- Common in most jurisdictions.
- Barriers to sustainability.
- Access.

Participants discussed and confirmed the six strategic issues as priorities for ETB sustainability in Canada. They then each selected one strategic issue they wanted to explore further in focused, small group discussions. Following are the results of this small group work for each issue.

The facilitator clarified that the leadership role identified for each strategic action refers to initiation of the action and provision of some oversight, not accountability for implementation.
## 1. Surgical Bone Banking

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td>To establish a universal, accredited protocol for the collection and processing of surgical bone, while optimizing the capacity to procure surgical bone.</td>
<td><strong>Leadership</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strategic Actions</th>
<th>Leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Establish a sound business case and solicit financial support from provincial governments dedicated to tissue banking.</td>
<td>Tissue-bank director, hospital administrator, CCDT</td>
</tr>
<tr>
<td>1.2 Develop a standardized model for surgical bone bank processes and procedures based on Canadian Standards Association standards, scientific evidence, and current best practices from centres of excellence (COEs).</td>
<td>COEs, local champions, Canadian Association of Eye and Tissue Banks (CAETB), CCDT</td>
</tr>
<tr>
<td>1.3 Use currently understood processes and strategies to establish pilot projects to maximize bone-donor recruitment.</td>
<td>CCDT, local champions</td>
</tr>
<tr>
<td>1.4 Engage provincial and national professional technologist and nursing bodies in the establishment of specific tissue-banking training programs.</td>
<td>Provincial medical laboratory associations, provincial nursing associations, CAETB</td>
</tr>
</tbody>
</table>
2. Importation

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Strategic Actions</th>
<th>Leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td>To ensure that imported tissues meet the requirements of both Health Canada and end users.</td>
<td>2.1 Develop a centralized importation/distribution system (not necessarily at a national level).</td>
<td>CCDT recommendation, provincial governments, specific situations and jurisdictions</td>
</tr>
<tr>
<td></td>
<td>2.2 Set criteria for the selection of foreign establishments from which tissues would be imported to Canada.</td>
<td>CCDT recommendation, provincial governments, specific situations and jurisdictions</td>
</tr>
<tr>
<td></td>
<td>2.3 Better communicate requirements for importing tissues (both to foreign establishment and Canadian importers/distributors).</td>
<td>Health Canada</td>
</tr>
</tbody>
</table>

**Key Consideration**
- Although not within the scope of this particular group’s work, distribution of Canadian tissues within Canada should also be discussed further.
### 3. Self-Sufficiency

<table>
<thead>
<tr>
<th>Challenge</th>
<th>To define, in conjunction with end users, self-sufficiency in the Canadian context, and to develop a system to achieve it.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Strategic Actions</strong></th>
<th><strong>Leadership</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Develop a business case for a Canadian centre for transmissible-disease testing.</td>
<td>CCDT TC</td>
</tr>
<tr>
<td>3.2 Define reasonable and appropriate self-sufficiency for Canada (in collaboration with end users).</td>
<td>CCDT TC (e.g., work done by Canadian Blood Services and Héma-Québec on plasma self sufficiency)</td>
</tr>
<tr>
<td>3.3 Define a sustainable funding model(s) in collaboration with end users.</td>
<td>CCDT TC</td>
</tr>
<tr>
<td>3.4 Develop a national procurement strategy, taking into account regional variations.</td>
<td>CCDT TC</td>
</tr>
<tr>
<td>3.5 Develop a national processing strategy, taking into account regional variations.</td>
<td>CCDT TC</td>
</tr>
<tr>
<td>3.6 Develop a national advocacy strategy to put tissue on the federal and provincial government agenda.</td>
<td>CCDT TC, end users, tissue banks</td>
</tr>
<tr>
<td>3.7 Develop a strategy to engage end users in this work.</td>
<td>CCDT TC</td>
</tr>
</tbody>
</table>

**Key Consideration**

- Consultation with the customer/end user is critical to the successful completion of these actions.
## 4. Advanced Tissue Products

| Challenge | To establish a processing facility that can produce advanced tissue products, such as demineralized bone matrix. |

### Strategic Actions | Leadership
--- | ---
4.1 | Develop a national strategy for managing the long-term demand and processing of advanced tissue products, and assign oversight responsibility (accountability). | CCDT |
4.2 | Promote solutions to tissue banks in order to obtain buy-in. | CCDT/CAETB/professional associations/stakeholders |
4.3 | Develop a business case for processing facilities for each advanced tissue product. | National |

### Key Considerations
- Examine evolving new products.
- Think “way outside the box” in terms of where this could be done.
- Define what you want to focus on in relation to products (i.e., what overall direction or focus does the tissue banking community want to take in Canada?).
### 5. Best Practices to Standardization

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td>To identify areas requiring best practices and develop a national consensus on what those best practices should be and how to implement them.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Strategic Actions</th>
<th>Leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1 Conduct a gap analysis to flesh out areas that need improvement or greater focus; build on what currently exists.</td>
<td>CCDT</td>
</tr>
<tr>
<td>5.2 Convene evidence-based consensus forums on unique areas identified through gap analyses. Disseminate best practices identified at these forums to all stakeholders.</td>
<td>CCDT</td>
</tr>
<tr>
<td>5.3 Continue to improve and maintain best practices on an ongoing basis.</td>
<td>CCDT</td>
</tr>
<tr>
<td>5.4 Develop a national information system that identifies what needs to be measured, is supported by the provinces/territories, and feeds into a national database.</td>
<td>CCDT with the engagement of the CIHI and the Public Health Agency of Canada.</td>
</tr>
</tbody>
</table>
### 6. Access to High-Demand Tissue

**Challenge**
To provide equitable access to safe, high-quality tissue.

<table>
<thead>
<tr>
<th>Strategic Actions</th>
<th>Leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1 Establish national/provincial/territorial targets for donation and processing.</td>
<td>CCDT TC</td>
</tr>
<tr>
<td>6.2 Establish interprovincial/territorial agreements (e.g., start with tissue billing).</td>
<td>CCDT TC</td>
</tr>
<tr>
<td>6.3 Develop a national database (virtual tissue warehouse), including a waiting list.</td>
<td>CIHI</td>
</tr>
<tr>
<td>6.4 Establish a mechanism for the bulk purchase of external products, starting regionally and then moving nationally.</td>
<td>CCDT TC</td>
</tr>
<tr>
<td>6.5 Explore the usefulness of a tissue-allocation system.</td>
<td>CCDT TC</td>
</tr>
</tbody>
</table>
Vision 2012

One objective of this meeting was to develop a five-year vision (2012) for tissue-banking sustainability in Canada. Participants worked in small groups to envision how a sustainable system would look in five years and to highlight the key characteristics and elements of this preferred future. The following six models were presented by participants for discussion and analysis by the CCDT TC.

They represent the best thoughts of the participants. The feasibility of proposed responsibilities has not been examined, and the models are presented in no particular order.

Model 1

In this model, recovery centres obtain tissue and feed it into regional COEs, where it is processed and distributed. A national reference laboratory for transmissible disease is managed by Health Canada as a resource for the recovery centres, to ensure the safety of the processed tissue. Tissue banks in the United States function as back-up and/or as processors of advanced products.

The key characteristics of this model are that it is a nationally coordinated system with regional delivery. The national organization provides coordination and responsibility for informatics, trend analysis, emerging issues, access target-setting, best practices, advocacy, and the identification and facilitation of research and development (R&D). Key elements required to ensure the success of this option are robust informatics, equitable access to tissue, a sustainable funding model, and established COEs.
Model 2

In this model, guaranteed funding is provided to support the system. Only recognized external sources send tissue to distributors in Canada, who coordinate distribution to hospitals. Many different structures can be established, all of which are registered with Health Canada. Hospitals distribute among themselves as well as receive/distribute externally.

The key characteristics of this model are that all tissue banks are registered and regulated (domestic and foreign) and all basic tissues are available in Canada. The system is 50 percent self-sufficient for Canadian demand. Key elements required to support this system are dedicated funding for tissue banking in Canada, a national network for sharing (informatics, inventories, knowledge, etc.), and collaboration on R&D initiatives.
Model 3

In this model, CCDT is the central entity, with Health Canada overlooking regulations and standards at various levels. A central database is the main focus for information sharing by and among the provinces as well as within tissue banks and hospitals. No decision was reached on ownership of the database, but group members thought it could be a national entity.

The main characteristics of this model are increased safety, equitable access to tissue, and cost effectiveness. Key elements required to support this option include a national, coordinated approach (e.g., database) with enhanced national regulations, surveillance, and compliance, as well as a centralized approach to tissue banking.
Model 4

In this model, donors and recipients have “ownership” and are represented through tissue banks, levels of governments, and standards organizations. All of these feed into a “no-name” organization responsible for data, access, fiscal responsibility, education, public relations, best practices, training, and donor and family support. This organization could also take the lead for processing, distribution, and determining directions. It could also have relationships with both stand-alone and R&D facilities. Money comes not only from government but also from organizations, foundations, and individuals as a donation-related tax deduction. An important principle is that it is easier for those who control the system to also control the costs.

The key characteristics of this model are that involvement and responsibility lie with all participants and that all stakeholders have a voice. There is transparency and open access in all aspects of this approach. Key elements of this model are that it rewards contributions to the system; is transparent and has accountable financial operations; and has multiple sources of funding.
Model 5

In this group, participants took a different approach by emphasizing the overall concept and guiding principles rather than describing a structural model. In the resulting model, the Canadian Standards Association, Health Canada, and tissue organizations overlay all aspects of oversight. COEs are involved in production, education, and the distribution of products to other entities, including provincial and territorial authorities working with regional tissue banks. The U.S. is still a source of tissue, as are other countries. A national entity takes care of bulk purchasing.

The key characteristics of this model are an adequate supply of all tissues to recipients in Canada, with all operations based on best practices and supported by Canadian-based training and R&D. Key elements of this system are that it is cost-effective and nationally integrated, and that individuals are trained in Canada.
**Model 6**

In this model, the emphasis is on centralizing many aspects of tissue banking.

The main characteristics of this model are a forward-looking, customer-centered focus that supports the generation of quality products. Key elements of this system are that all facilities are registered with Health Canada, there is established information-sharing (a database), and there is a research chair in a COE that offers a training program for tissue-bank specialists.

**Participants’ Recommendation**

Meeting participants recommended that the CCDT TC review these six visionary options for a sustainable system and come to agreement on the best approach for Canada 2012. They recognized that the vision for sustainability would need to be well integrated with that of the other three issues on the TC agenda: access, quality, and accountability.
Emerging Issues (Beyond 2012)

When asked to identify concerns that could affect the sustainability of tissue-banking systems beyond 2012, participants identified the following items:

- New diseases.
- New technologies (e.g., artificial tissues).
- Growing demand (aging population).
- Human resource challenges.
- The need for a more responsive system.
- A reduced supply of funding for tissue banking because other health issues may become priorities for Canada’s aging population (e.g., cancer, heart health).
- Funding realities (i.e., multiple pressures on government resources leading to the need to look outside government).
- Increased costs (e.g., of technologies, new drugs).
- The unknown nature of the supply and its impact (e.g., cornea availability may decrease because of laser technology).
- Evolution of ethical challenges (e.g., payment for tissue).

Conclusion and Next Steps

Dr. Germain closed the meeting by thanking participants for their enthusiastic and thoughtful participation. He noted that the meeting results had exceeded his expectations and that he was particularly pleased with the general consensus of participants regarding the vital role of national organizations such as the CCDT and the CAETB in taking on the recommendations made at the meeting. He concluded by describing the TC’s work in other areas (primarily traceability and surveillance), and stressed the importance of being realistic about the committee’s work plan over the next few years, given the time and energy available to its members—all of whom are volunteers.

A briefing note was provided to all participants shortly after the meeting, and all were encouraged to customize and distribute it widely in support of timely communication about the Task Force’s discussions.

The recommendations and conclusions in the draft meeting report were reviewed by the TC during its January 2007 meeting. All meeting attendees will receive a copy of the final report and will be kept informed of TC discussions and decisions, particularly with respect to work on the next mandate and the next meeting of the Task Force.
Appendices
Appendix A: Participants

Simon Avis, MD  
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Newfoundland and Labrador

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BC Transplant Society  
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Dr. Donald MacLellan Tissue Bank  
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Saint-Laurent QC

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London Health Sciences Centre Tissue Organ & Cell Bank  
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Canadian Association of Transplantation  
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Mary Gatien, RN, BN, CEBT, CBTS  
Executive Director  
New Brunswick Eye Bank  
President, Canadian Association of Eye and Tissue Banks  
Saint John NB

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Bone Bank Coordinator  
St. Michael's Hospital Bone Bank  
Toronto ON

Scott Brubaker, CTBS  
Chief Policy Officer  
American Association of Tissue Banks  
McLean VA  
USA

Marc Germain, MD  
Vice President Human Tissues  
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Laurie Howells, RN, CEBT  
Coordinator/Executive Director  
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Sonny Lazaro  
Manager, The Hospital for Sick Children Tissue Laboratory  
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Wendy Trotter  
Director, Special Initiatives Medical Services Division  
Ministry of Health  
Victoria BC
Enhancing Tissue Banking in Canada: Phase I—Sustainability

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Ottawa ON

Deanna Paulson
Patient Care Director, Transplant Services
University of Alberta Hospital
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Jim Vandevoorde
Manager
Southern Alberta Tissue Program
Calgary AB

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Provincial Tissue Advisor
Trillium Gift of Life Network
Toronto ON

Mijana Ridic CEBT
Transplant Coordinator
Lions Eye Bank Society of Alberta
Calgary AB

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Tissue Bank Manitoba
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Kimberly Young
Chief Executive Officer
Canadian Council for Donation and Transplantation
Edmonton AB

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Sunnybrook Health Sciences Centre
Toronto ON

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Acting Manager
Saskatchewan Transplant Program
Saskatoon SK

Lorna Zilic MLT CTBS
Senior Certified Tissue Bank Specialist
Rubinoff Bone and Tissue Bank
Department of Pathology & Laboratory Medicine
Mount Sinai Hospital
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James Mohr
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Queen Elizabeth II Sciences Centre
Halifax NS

Euan Swan DDS
Canadian Dental Association
Ottawa ON
Appendices

Appendix B: Meeting Agenda

Thursday, November 23, 2006

09:30  Part 1 - Task Force Overview
  • Welcome
    Kimberly Young, Chief Executive Officer,
    Canadian Council for Donation and Transplantation
  • Opening Remarks
    Marc Germain MD, Task Force Chair
    Vice-President, Human Tissues
    Héma-Québec
  • Task Force Process and Procedures
    Dorothy Strachan, Strachan-Tomlinson

10:30  Part 2 - Tissue Banking in Canada – Past, Present and Future (Q&As follow)
  • Benchmarking – International Perspectives
    Scott Brubaker
    American Association of Tissue Banks

11:20  Part 2 - Tissue Banking in Canada – Past, Present and Future (Q&As follow)
  • Tissue Banking in Canada
    Jim Mohr
    Regional Tissue Bank, Halifax
  • Overview – Background Documents
    Dorothy Strachan, Strachan-Tomlinson

12:00  Group and Plenary Discussions

Vision for Tissue Banking in Canada 2012

15:20  Part 4 – Issues Analysis

Small group discussions

17:30  Closing
Friday, November 24, 2006

08:30  \textit{Agenda: Review/Preview}

08:40  \textit{Part 4—Issues Analysis cont’d}

09:15  \textit{Group Conclusions, Plenary Discussion and Feedback}

13:15  \textit{Part 5—Emerging Issues over the Long Term}

\textit{Plenary Discussion}

14:30  \textit{Part 6—Plenary Wrap Up and Closing}

\begin{itemize}
  \item \textit{Closing Remarks}
    
    Marc Germain MD, Task Force Chair
\end{itemize}

15:30 – 16:30 \textit{Steering Committee Meeting}
# Appendix C: Key Terms and Acronyms

## Key Terms

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Tissue Products</td>
<td>Allograft tissue that has been processed using techniques that exceed antimicrobial washing or trimming (e.g., demineralized bone, decellularized skin, proprietary sterilization techniques).</td>
</tr>
<tr>
<td>Cost Recovery</td>
<td>Fees charged for distributed tissue that cover the cost of recovery and processing the specific graft.</td>
</tr>
<tr>
<td>End User</td>
<td>A medical professional who transplants/implants tissue derived from human cells or tissues.</td>
</tr>
<tr>
<td>Self-Sufficiency</td>
<td>Internal resources required to conduct day-to-day activities (see “sustainability”).</td>
</tr>
<tr>
<td>Strategic Actions</td>
<td>Broad, high-level, measurable action statements within a strategic issue area that are focused on improving outcomes for patients and their families. They are based on the best evidence available as well as on stakeholder experience and expectations.</td>
</tr>
<tr>
<td>Strategic Issues</td>
<td>Fundamental policy choices or critical challenges that must be addressed in order for the tissue-banking community to achieve its vision of sustainability. A major area of responsibility and commitment for the CCDT, strategic issues require collaboration among stakeholders to support successful outcomes.</td>
</tr>
<tr>
<td>Surgical-Bone Banking</td>
<td>Tissue-banking processes specific to bone recovered from living patients that would be discarded if not donated. Generally refers to femoral heads recovered during total hip replacement.</td>
</tr>
<tr>
<td>Sustainability</td>
<td>For the purposes of the ETB Task Force, enhancing tissue-banking sustainability is a federal/provincial/territorial health-system challenge involving a flexible and inclusive approach to capacity building at all levels as well as innovative technological support and policy development to ensure that current demands are met without compromising future needs.</td>
</tr>
</tbody>
</table>
| Tissue Banking | Recovery of tissue from a deceased or living donor—from the processing of tissue to the final distribution of the product. According to Health Canada, processing (with respect to cells, tissue, and organs) means any of the following activities:  
  * Donor screening.  
  * Preparation for use in transplantation.  
  * Donor testing.  
  * Preservation.  
  * Donor suitability assessment.  
  * Quarantine.  
  * Retrieval.  
  * Banking.  
  * Post-retrieval testing.  
  * Labelling and packaging. |
Enhancing Tissue Banking in Canada: Phase I–Sustainability

**Acronyms**

AATB  American Association of Tissue Banks  
CAETB  Canadian Association of Eye and Tissue Banks  
CBS  Canadian Blood Services  
CCDT  Canadian Council for Donation and Transplantation  
COE  Centre of Excellence  
CIHI  Canadian Institute for Health Information  
CSA  Canadian Standards Association  
DBM  Demineralized bone matrix  
EBAA  Eye Bank Association of America  
NRL  National Reference Laboratory  
R&D  Research and Development  
TC  Tissue Committee
### Appendix D: Meeting Committees

<table>
<thead>
<tr>
<th>Name</th>
<th>Title and Institution</th>
<th>Committee Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marc Germain, MD</td>
<td>VP, Human Tissues, Héma-Québec</td>
<td>Planning and Steering Committees</td>
</tr>
<tr>
<td></td>
<td>Chair</td>
<td></td>
</tr>
<tr>
<td>Mark Vimr</td>
<td>VP, Clinical Operations</td>
<td>Planning and Steering Committees</td>
</tr>
<tr>
<td></td>
<td>Chief Nursing Officer</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trillium Gift of Life Network</td>
<td></td>
</tr>
<tr>
<td>Liz Anne Gillham-Eisen</td>
<td>Senior Policy Analyst/Program Manager for Cells, Tissues and Organs, Health Canada</td>
<td>Planning and Steering Committees</td>
</tr>
<tr>
<td>Jonathan Lakey, PhD</td>
<td>Director, Comprehensive Tissue Centre</td>
<td>Planning and Steering Committees</td>
</tr>
<tr>
<td>Mary Gatien</td>
<td>Executive Director, New Brunswick Eye Bank President, Canadian Assoc. of Eye and Tissue Banks</td>
<td>Steering Committee</td>
</tr>
<tr>
<td>Graham Scoles, PhD</td>
<td>College of Agriculture, University of Saskatchewan</td>
<td>Steering Committee</td>
</tr>
<tr>
<td>Sean Margueratt</td>
<td>Quality Leader, Regional Tissue Bank</td>
<td>Steering Committee</td>
</tr>
<tr>
<td>Scott Brubaker</td>
<td>Chief Policy Officer, American Association of Tissue Banks</td>
<td>Steering Committee</td>
</tr>
<tr>
<td>Linda Socha</td>
<td>Acting Provincial Program Manager, Saskatchewan Transplant Program</td>
<td>Steering Committee</td>
</tr>
<tr>
<td>Simon Avis, MD</td>
<td>Chief Medical Examiner, Professor of Pathology, Office of the Chief Medical Examiner, NL</td>
<td>Steering Committee</td>
</tr>
<tr>
<td>Lisa MacIsaac</td>
<td>Provincial Tissue Advisor, Trillium Gift of Life Network</td>
<td>Steering Committee</td>
</tr>
</tbody>
</table>

**Sponsored by:**
- Canadian Council for Donation and Transplantation
- John Harkins, Sr. Administrative Assistant Facilitation:
- Dorothy Strachan, Strachan-Tomlinson Consulting

**CCDT Management and Support:**
- Kimberly Young, Chief Executive Officer
- Christina Rogers, Initiative Director
- Beverley Curtis, Managing Director, Initiatives
- Jim Mohr, SourceJM
Appendix E: Organizations and Societies Represented

- American Association of Tissue Banks
- British Columbia Transplant Society
- Canadian Association of Eye and Tissue Banks
- Canadian Council for Donation and Transplantation
- Canadian Dental Association
- Canadian Ophthalmological Society
- Canadian Orthopaedic Association
- Comprehensive Tissue Centre, Capital Health Alberta
- Health Canada
- Hospital for Sick Children, Toronto
- Héma-Québec
- Lions Eye Bank (Alberta) Society
- Lions Eye Bank of Manitoba and Northwest Ontario
- Lions Eye Bank of Saskatchewan
- London Health Sciences Centre
- Rubinoff Bone and Tissue Bank, Mount Sinai Hospital, Toronto
- New Brunswick Eye Bank
- Ottawa Hospital—General Campus
- Regional Tissue Bank, Capital Health Nova Scotia
- Royal Jubilee Hospital, Victoria
- St. Michael’s Hospital, Toronto
- Saskatchewan Transplant Program
- Southern Alberta Tissue Program, Calgary Regional Health Authority
- Sunnybrook and Women’s College Health Sciences Centre, Toronto
- Tissue Bank Manitoba
- Trillium Gift of Life Network