

14th Annual Canadian Blood Services International Symposium

 Intersecting Worlds of Transfusion and Transplantation Medicine 

Saturday September 17th, 2016

Chestnut Conference Centre, University of Toronto
Colony Ballroom • 89 Chestnut Street • Toronto, Ontario



Program Goals

- ✓ Enhance knowledge of current and potential uses of hematopoietic stem cells in transfusion and transplantation medicine
- ✓ Gain an understanding of current transfusion practices in hematopoietic stem cell transplantation
- ✓ Enhance knowledge of emerging cellular therapies associated with mesenchymal stem cells

7:45 – 8:25 *Light Continental Breakfast & Registration*

WELCOME

8:25 – 8:30 **Welcome**

Dr. Sophie Chargé, Canadian Blood Services, Ottawa

8:30 – 8:40 **Intersecting world of transfusion and transplantation medicine**

Dr. Robert Skeate, University of Toronto and Canadian Blood Services, Toronto

SESSION 1: HEMATOPOIETIC STEM CELLS

Chair: *Dr. David Allan, Ottawa Hospital Research Institute, University of Ottawa, and Canadian Blood Services, Ottawa*

8:40 – 9:10 **Hematopoietic stem cells and differentiation of blood cells**

Dr. Sasan Zandi, University of Toronto, Toronto
Including 5 min Q&A

9:10 – 9:55 **Ex vivo platelet production from hematopoietic stem cells**

Dr. William Miller, Northwestern University, Evanston USA
Including 10 min Q&A

9:55 – 10:15 *Coffee Break*

SESSION 2: TRANSFUSION PRACTICE IN TRANSPLANT RECIPIENTS

Chair: *Dr. David Allan, Ottawa Hospital Research Institute, University of Ottawa, and Canadian Blood Services, Ottawa*

10:15 – 10:45 **Optimizing transfusion practice in hematopoietic stem cell transplantation patients**

Dr. David Allan, Ottawa Hospital Research Institute, University of Ottawa, and Canadian Blood Services, Ottawa
Including 5 min Q&A

10:45 – 11:15 **Basic principles of human leukocyte antigen (HLA) testing in hematopoietic stem cell transplantation**

Dr. Rob Liwski, Dalhousie University and Canadian Blood Services, Halifax
Including 5 min Q&A

PANEL DISCUSSION

11:15 – 12:00 **The future of transfusion and transplantation medicine**

Dr. Filippo Milano, Fred Hutchinson Cancer Research Center, Seattle USA
Dr. Lauralyn McIntyre, Ottawa Hospital Research Institute, The Ottawa Hospital, and University of Ottawa, Ottawa
The audience will be invited to participate

12:00 – 13:00 *Networking Lunch (Catered lunch with opportunity to ask questions to speakers)*

SESSION 3: CELLULAR THERAPIES

Chair: *Dr. Nicolas Pineault, University of Ottawa and Canadian Blood Services, Ottawa*

13:00 – 13:30 **Optimizing cord blood banking**

Dr. Nicolas Pineault, University of Ottawa and Canadian Blood Services, Ottawa
Including 5 min Q&A

13:30 – 14:15 **Improving cord blood transplantation clinical practice**

Dr. Filippo Milano, Fred Hutchinson Cancer Research Center, Seattle USA
Including 10 min Q&A

14:15 – 14:35 *Coffee Break*

14:35 – 15:20 **Mesenchymal stem cells: the translational pipeline from bench to bedside**

Dr. Shibani Pati, Blood Systems Research Institute, San Francisco USA
Including 10 min Q&A

15:20 – 15:50 **Mesenchymal stem cells and clinical applications**

Dr. Lauralyn McIntyre, Ottawa Hospital Research Institute, The Ottawa Hospital, and University of Ottawa, Ottawa
Including 5 min Q&A

MEETING WRAP-UP

15:50 – 16:00 *Dr. William Sheffield, McMaster University and Canadian Blood Services, Hamilton*

CONTINUING MEDICAL EDUCATION ACCREDITATION

This event is an Accredited Group Learning Activity 5.5 Section 1 Credits as defined by the Maintenance of Certification program of the Royal College of Physicians and Surgeons of Canada, approved by the University of Toronto.

Upon completion of this program participants will be able to:

- ✓ Describe features and functions of hematopoietic stem cells
- ✓ Explain the process of hematopoiesis
- ✓ Discuss approaches to generate platelets ex vivo and describe their potential applications in transfusion medicine
- ✓ Explain the advantages and disadvantages of ex vivo generated platelets in transfusion medicine
- ✓ Summarize current transfusion practices in hematopoietic stem cell transplantation patients
- ✓ Describe the diversity and function of human leukocyte antigen (HLA) genes
- ✓ Describe the principles of HLA testing and the importance of HLA matching in hematopoietic stem cell transplantation
- ✓ Summarize Canadian Blood Services' activities in the area of hematopoietic stem cell transplantation
- ✓ Describe current research efforts to improve umbilical cord blood processing and banking
- ✓ Compare cord blood hematopoietic stem cell transplantation practice with adult hematopoietic stem cell transplantation practice
- ✓ Summarize recent clinical trials investigating the expansion of cord blood stem cells prior to transplantation
- ✓ Describe additional therapeutic applications for cord blood stem cells
- ✓ Describe the biological properties of mesenchymal stem cells
- ✓ Describe translational barriers at the pre-clinical, clinical, and production level for mesenchymal stem cells
- ✓ Describe the potential role of blood centers in the production and large scale expansion of clinical grade mesenchymal stem cells
- ✓ Describe the current and potential therapeutic uses of mesenchymal stem cells
- ✓ Summarize the results of the Cellular Immunotherapy for Septic Shock (CISS) clinical trial assessing the safety of mesenchymal stem cell therapy in septic shock



This program was developed in collaboration with the Continuing Professional Development (CPD), Faculty of Medicine, University of Toronto, which is fully accredited by the Committee on Accreditation of Continuing Medical Education (CACME), a subcommittee of the Committee on Accreditation of Canadian Medical Schools (CACMS). This standard allows CPD to assign credits for educational activities based on the criteria established by The College of Family Physicians of Canada, and the Royal College of Physicians and Surgeons of Canada.

As a result of a reciprocal agreement between the Royal College of Physicians and Surgeons of Canada, The American Medical Association, and The European Union for Medical Specialists, CPD is permitted to assign respective credits.

PLANNING COMMITTEE MEMBERSHIP

Dr. William Sheffield (Co-chair), Associate Director and Senior Scientist, Centre for Innovation, Canadian Blood Services and Professor, McMaster University

Dr. Kathryn Webert (Co-chair), Medical Director, Utilization, Canadian Blood Services and Associate Professor, McMaster University

Dr. Robert Skeate (Course Director), Associate Medical Director, Medical Services, Canadian Blood Services and Assistant Professor, University of Toronto

Dr. David Allan, Scientist, Ottawa Hospital Research Institute, Associate Professor, University of Ottawa, and Medical Director, Canadian Blood Services

Dr. Nicolas Pineault, Development Scientist, Centre for Innovation, Canadian Blood Services and Adjunct Professor, University of Ottawa

Dr. Sophie Chargé, Associate Director, Knowledge Mobilization, Centre for Innovation, Canadian Blood Services

Dr. Mia Golder, Manager, Research and Training Programs, Centre for Innovation, Canadian Blood Services

Dr. Geraldine Walsh, Scientific Writer, Centre for Innovation, Canadian Blood Services

Mr. Ahmed Coovadia, Utilization Specialist, Utilization, Canadian Blood Services

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DISCLOSURE STATEMENT

This event received funding from Canadian Blood Services' Centre for Innovation.

Drs. Sasan Zandi, David Allan, Robert Liwski, Nicolas Pineault, Filippo Milano, Shibani Pati, William Sheffield, Kathryn Webert, Sophie Chargé, Mia Golder, and Geraldine Walsh and Mr. Ahmed Coovadia have no actual or potential conflict of interest in relation to this program.

The following relationships that could be perceived as a related or apparent conflict of interest in the context of the subject of this program over the past FIVE (5) years are being disclosed:

1. Robert Skeate, speaker and planning committee member, discloses grant/research support from Canadian Blood Services.
2. William Miller, speaker, discloses other financial/material support from ANSYS and Fresenius Kabi.
3. David Allan, speaker and planning committee member, discloses consultant for Canadian Blood Services OneMatch and Cord Blood Bank.
4. Lauralyn McIntyre, speaker, discloses grant/research support from CIHR/Ontario Institute for Regenerative Medicine.

RECEIVING CME ACCREDITATION

Attendees will receive an email containing instructions on how to retrieve their letter of accreditation no later than three weeks after the end of the symposium. Please keep the email should you need to re-retrieve the letter.

PROVIDING FEEDBACK

Following the event, attendees will receive a link by email to complete an online evaluation questionnaire. We thank you for completing this evaluation, as the information will be important to plan for future events.





Canadian Blood Services manages the national supply of blood, blood products and stem cells, and related services for all the provinces and territories (excluding Quebec). We operate an integrated, pan-Canadian service delivery model that includes leading an interprovincial system for organ donation and transplantation. Our national scope, infrastructure and governance make us unique in the Canadian healthcare landscape. Canadian Blood Services is regulated as a biologics manufacturer by Health Canada and primarily funded by the provincial and territorial ministries of health.

Canadian Blood Services is a not-for-profit charitable organization.

Through its Centre for Innovation, Canadian Blood Services facilitates the creation, translation, and application of new knowledge to support a safe, effective, and responsive system of blood and related biologics for Canada.