13th Annual Canadian Blood Services International Symposium
Blood-Borne Pathogens: Defend, Detect, and Destroy

Saturday September 26th, 2015
Chestnut Conference Centre, University of Toronto
Colony Ballroom • 89 Chestnut Street • Toronto, Ontario

Program Goals
✓ Enhance knowledge of blood-borne pathogens
✓ Gain an understanding of approaches used to ensure the safety of the blood supply

7:30 – 8:10 Light Continental Breakfast & Registration

Welcome
8:10 – 8:15 Dr. Margaret Fearon, Canadian Blood Services, Toronto

Session 1: Defense Against Pathogens
Chair: Dr. Margaret Fearon, Canadian Blood Services, Toronto

8:15 – 8:50 Prevalence and risks of blood-borne pathogens in the Canadian blood supply
Dr. Margaret Fearon, Canadian Blood Services and University of Toronto, Toronto
Including 6 min Q&A

8:50 – 9:35 Current perspectives on transfusion transmitted infectious diseases: emerging pathogens worldwide
Dr. Roger Dodd, Secretary General of the International Society of Blood Transfusion, Washington DC
Including 12 min Q&A

9:35 – 9:55 Coffee Break

9:55 – 10:25 Preventing the spread of pathogens around the globe – a clinical and public health perspective
Dr. Allison McGeer, Mt. Sinai Hospital, Toronto
Including 6 min Q&A

10:25 – 11:10 An alternative method of maintaining a clean blood supply: ex vivo generated red blood cells
Dr. Marc Turner, Scottish National Blood Transfusion Service, Edinburgh Scotland
Including 12 min Q&A
Session 2: Detecting Pathogens

Chair: Dr. William Sheffield, Canadian Blood Services and McMaster University, Hamilton

11:10 – 11:40  The technical aspects of pathogen testing in Canada  
  Nancy Angus, Canadian Blood Services, Toronto  
  Including 6 min Q&A

11:40 – 12:25  Next generation sequencing – the future of pathogen testing?  
  Dr. Samia Naccache, University of California, San Francisco CA  
  Including 12 min Q&A

12:25 – 13:25  Networking Lunch (Catered lunch with opportunity to ask questions to speakers)

Session 3: Destroying Pathogens

Chair: Dr. Kathryn Webert, Canadian Blood Services and McMaster University, Hamilton

13:25 – 13:55  The biological impact of pathogen inactivation on blood product quality  
  Dr. Peter Schubert, Canadian Blood Services and University of British Columbia, Vancouver  
  Including 6 min Q&A

13:55 – 14:40  Implementation of pathogen inactivation technology in Switzerland  
  Dr. Niels Lion, Transfusion Interrégionale CRS, Lausanne Switzerland  
  Including 12 min Q&A

14:40 – 15:00  Coffee Break

15:00 – 15:45  Economic and health outcome implications of introducing new pathogen testing and inactivation technologies  
  Dr. Brian Custer, Blood Systems Research Institute and University of California, San Francisco CA  
  Including 12 min Q&A

Meeting Wrap-up

15:45 – 15:55  Dr. Kathryn Webert, Canadian Blood Services and McMaster University, Hamilton
Program Learning Objectives:
Upon completion of this program participants will be able to:

- Discuss the characteristics, prevalence rates and residual risks for transfusion-transmitted blood-borne pathogens in Canada and worldwide;
- Describe the factors that impact the emergence of new infectious agents;
- Summarize surveillance systems in place to monitor risks associated with blood-borne pathogens;
- Explain how the Risk-Based Decision-Making Framework for blood safety can be used to help decision makers optimize the safety of the blood supply from blood-borne pathogens;
- Describe the advantages and disadvantages of the Canadian and Global response to disease outbreaks with global impact;
- Summarize ways to improve the prevention and management of new outbreaks and emerging diseases;
- Discuss approaches to generate red blood cells ex vivo and describe their potential applications in transfusion medicine;
- Explain the advantages and disadvantages of ex vivo generated red blood cells in transfusion medicine;
- Describe the laboratory tests currently in use by blood operators, and in particular by Canadian Blood Services, for the detection of blood-borne pathogens;
- Summarize the differences in sensitivity of the current laboratory tests for blood borne pathogens;
- Explain the principles and methodology behind next generation sequencing approaches for the detection of pathogens;
- Explain how next generation sequencing approaches may be used for the detection of blood-borne pathogens by blood operators in the future;
- Compare the currently available pathogen inactivation technologies and their mechanisms of action;
- Discuss the impact of pathogen inactivation technology on product quality, operational logistics, and patient safety;
- Review costs, consequences, and cost-effectiveness of introducing new pathogen testing and/or pathogen inactivation technologies.

This program was developed in collaboration with:

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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.

Attendees will receive a link by email, no later than three weeks after the end of the symposium, for a personalized letter of CME accreditation. Please keep the email should you need to reprint the letter.

Directions & Parking

Chestnut Residence and Conference Centre, University of Toronto is located south of Dundas Street on the east side of Chestnut Street.

The entrance to the parking garage is located on the north-west corner of the building, on the east side of Chestnut Street. For parking rates, visit: [http://chestnutconferencecentre.utoronto.ca/parking](http://chestnutconferencecentre.utoronto.ca/parking)