The Canadian Blood and Marrow Transplant Group would like to thank Sanofi Genzyme and Jazz Pharmaceuticals for their exclusive support of the GVHD Symposium.
The Canadian Blood and Marrow Transplant Group would like to thank Sanofi Genzyme and Jazz Pharmaceuticals for their exclusive support of this symposium.
TABLE OF CONTENTS

Welcome Letter ...................................................................................................4
Board of Directors ...............................................................................................4
Planning Committee ............................................................................................4
Schedule-at-a-Glance ..........................................................................................5
Stem Cells Symposium Description .....................................................................6
GVHD Symposium Session Summaries ...............................................................7
About CBMTG ....................................................................................................9
Dear Colleagues,

On behalf of the Canadian Blood and Marrow Transplant Group (CBMTG) board of directors and symposium planning committee, I am pleased to invite you to the Montreal 2016 Graft-Versus-Host Disease (GVHD) Symposium.

Now in its 7th consecutive year, this annual symposium has been a key event in networking with colleagues across Canada and sharing state-of-the-art and innovative research impacting on GVHD prevention and treatment. This year’s program will cover the NIH consensus criteria for GVHD, the role of B cells in the pathogenesis of chronic GVHD and therapeutic options, updates on biomarkers for the diagnosis and treatment monitoring of GVHD, and overview of murine models of GVHD aiming the identification of novel therapies. Please see the full program for session descriptions.

We are happy to once again be partnering with the Canadian Blood Services and Héma-Québec who will present an afternoon symposium focusing on stem cells research in advance of the GVHD symposium on Friday afternoon, September 23.

We look forward to welcoming you to this exciting and interactive symposium. We hope that you enjoy your time in Montreal!

Sincerely,

Silvy Lachance, MD, FRCPC, CSPQ
Chair, Symposium Planning Committee

CBMTG Board of Directors

President,
Andrew Daly, MD

President-Elect,
Donna Wall, MD

Past President,
Christopher Bredeson, MD, MSc, FRCPC

Treasurer,
Raewyn Broady, MBCiB, FRACP, FCRCP

Secretary,
Jennifer Wiernikowski, MN, NP-Adult, CON(C)

Director-at-Large,
Education
Kylie Lepic, MD

Director-at-Large,
Research
Kirk Schultz, MD, FCAHS

GVHD Symposium Planning Committee

Silvy Lachance, MD, FRCPC
Ronan Foley, MD, FRCPC
Jean Roy, MD, FRCPC
Jeff Lipton, MD, PhD
# SCHEDULE-AT-A-GLANCE

**Stem Cells Symposium presented by**

**Friday, September 23, 2016**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:00pm – 1:00pm</td>
<td>Registration</td>
</tr>
</tbody>
</table>
| 1:00pm – 1:45pm | **SESSION 1: STEM CELLS AT HÉMA-QUÉBEC AND CBS: UPDATE ON THE STEM CELL REGISTRIES AND PUBLIC CORD BLOOD BANKS**  
Héma-Québec Public Cord Blood Bank and Stem Cell Registry: Quality & Performance  
Susie Joron, BSc  
CBS Stem Cells – Enhancing Ethnic Diversity in OneMatch and Cord Blood Bank  
David Allan, MD, FRCPC |
| 1:45pm – 2:50pm | **SESSION 2: BREAKTHROUGHS IN CORD BLOOD THERAPY**  
New Topics in HLA  
Robert Liwski, MD, PhD, FRCPC  
Cord Blood-Derived Cells for Tissue and Organ Regeneration  
Ian Rogers, PhD |
| 2:50pm – 3:15pm | Coffee Break                                                            |
| 3:15pm – 4:30pm | **SESSION 3: NEW DEVELOPMENTS AND APPROACHES IN THE WORLD OF STEM CELLS**  
Impact of Cryopreservation on the Immunomodulatory Activity of Mesenchymal Stromal Cells  
Renée Bazin, PhD  
Toward the Standardization of a Flow Cytometry Method for Thawed Cord Blood Samples: Proposition of a Canadian Branch of an Ongoing Eurocord and NetCord Multicenter Study  
Diane Fournier, PhD  
Radio-Immuno-Modulation for Advanced Lung Cancer: A Pilot Study Evaluating Tolerance and Immune Responses Using Adult or Cord Blood Stem Cells  
Razvan Diaconescu, MD  
Stem Cell Club at Canadian Medical Schools – Recruiting to Canada’s Unrelated Donor Registries  
Warren Fingrut, MD |

**Graft-Versus-Host-Disease Symposium sponsored by**

**Friday, September 23, 2016**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:00pm – 7:00pm</td>
<td>Registration</td>
</tr>
</tbody>
</table>
| 7:00pm onwards | Sanofi Genzyme Dinner Symposium  
“Every Patient Has a Donor, But How to Choose?”  
Linda Burns, MD |

**Saturday, September 24, 2016**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00am – 9:00am</td>
<td>Registration</td>
</tr>
<tr>
<td>8:00am – 8:15am</td>
<td>Introduction</td>
</tr>
</tbody>
</table>
| 8:15am – 9:15am | The NIH Criteria for Diagnosing and Staging Chronic GVHD  
Corey Cutler, MD, MPH, FRCPC |
| 9:15am – 10:15am | aberrantly Acti vated B Cells in Chronic GVHD: Novel Therapeutic Targets  
Stefanie Sarantopoulos, MD, PhD |
| 10:15am – 10:30am | Coffee Break                                                            |
| 10:30am – 11:30am | What Have Mouse GVHD Models Taught Us?  
Bruce Blazar, MD |
| 11:30am – 12:30pm | Advances in the Management of Chronic GVHD  
Daniel Couriel, MD, MS |
| 12:30pm – 1:30pm | Jazz Pharmaceuticals Lunch Symposium  
“Clinical Challenges Post BMT”  
Karl Peggs, BA, BM, MRCP |
| 1:30pm – 2:30pm | ST2: A Journey from Omics to Therapeutics  
Sophie Paczesny, MD, PhD |
| 2:30pm – 2:45pm | Concluding Remarks                                                       |
| 3:00pm – 3:30pm | BMT Registry Meeting                                                     |

**BMT Registry Meeting**  
Kristjan Paulson, MD, FRCPC
Session 1:
1:00pm – 1:45pm

Stem Cells at Héma-Québec and CBS:
Update on the Stem Cell Registries and Public Cord Blood Banks

  – Ms. Susie Joron, Héma-Québec
- CBS Stem Cells – Enhancing Ethnic Diversity in OneMatch and Cord Blood Bank
  – Dr. David Allan, Canadian Blood Services

Session 2:
1:45pm – 2:50pm

Breakthroughs in Cord Blood Therapy

In this session, we will hear how science is shaping the future of new therapy using stem cells.

- New Topics in HLA
  – Dr. Robert Liwski, Dalhousie University, Halifax
- Cord Blood-Derived Cells for Tissue and Organ Regeneration
  – Dr. Ian Rogers, Lunenfeld-Tanenbaum Research Institute, Toronto

Session 3:
3:15pm – 4:30pm

New Developments and Approaches in the World of Stem Cells

- Impact of Cryopreservation on the Immunomodulatory Activity of Mesenchymal Stromal Cells
  – Dr. Renée Bazin, Héma-Québec
- Toward the Standardization of a Flow Cytometry Method for Thawed Cord Blood Samples: Proposition of a Canadian Branch of an Ongoing Eurocord and NetCord Multicenter Study
  – Dr. Diane Fournier, Héma-Québec
- Radio-Immuno-Modulation for Advanced Lung Cancer: A Pilot Study Evaluating Tolerance and Immune Responses Using Adult or Cord Blood Stem Cells
  – Dr. Razvan Diaconescu, Sacré-Cœur Hospital, Montréal
- Stem Cell Club at Canadian Medical Schools – Recruiting to Canada’s Unrelated Donor Registries
  – Dr. Warren Fingrut, University of Toronto
GVHD SYMPOSIUM SESSION SUMMARIES

Friday, September 23, 2016

7:00pm Onward  Sanofi Genzyme Dinner Symposium
“Every Patient Has a Donor, But How to Choose?”

Linda Burns, MD

Approximately 70% of patients who could benefit from an allogeneic hematopoietic cell transplant will not have a suitable HLA-matched sibling donor. With many alternative donor options now available, every patient in need has the potential for a potentially life-saving transplant. Alternative donor sources include unrelated matched and mismatched donors, haploidentical donors, and umbilical cord blood. What are the pros and cons of each? Furthermore, if an adult donor is identified, what factors should be considered in recommending bone marrow or mobilized peripheral blood stem cells as the graft source? This session will review data from observational, prospective, and ongoing studies that impact decision making in selecting donor and graft sources.

Saturday, September 24, 2016

8:15am – 9:15am  The NIH Criteria for Diagnosing and Staging Chronic GVHD

Corey Cutler, MD, MPH, FRCP

The NIH Chronic GVHD Consensus Project was designed to standardize the evaluation, diagnosis, and measurement of therapeutic response in patients with chronic GVHD. Recently updated to reflect current treatment practices, the cGVHD evaluation remains the cornerstone of evaluation of patients with cGVHD. We will review the diagnosis of chronic GVHD and the correct evaluation of the individual organ systems involved in chronic GVHD, as well as review the scoring system to grade the severity of chronic GVHD, focusing on high-yield and efficient examination techniques. In addition, we will review the role that scoring systems have on predicting outcomes in chronic GVHD.

9:15am – 10:15am  Aberrantly Activated B Cells in Chronic GVHD: Novel Therapeutic Targets

Stefanie Sarantopoulos, MD, PhD

Work by us and others have revealed that B cells are key contributors to chronic GVHD pathogenesis. In allo-HCT recipients, excessive levels of B cell survival factor, BAFF is significantly associated with chronic GVHD development and with altered B cell homeostasis. Administration of B cell specific antibody, rituximab, results in cGVHD amelioration, but only if robust recovery of a naïve B cell compartment occurs, corroborating the importance of B cell homeostasis for cGVHD aversions. We found that B cells are in vivo activated and primed for survival and that potentially pathological B cells have a lowered B Cell Receptor (BCR) signaling threshold. Chronic GVHD B cells are preferentially blocked by a small molecule inhibitor, revealing a mechanism underpinning aberrant B-cell activation and laying the foundation for ongoing clinical trials.

10:30am – 11:30am  What Have Mouse GVHD Models Taught Us?

Bruce Blazar, MD

Despite major advances in understanding graft-versus-host disease (GVHD) pathobiology, GVHD remains a major life-threatening complication of allogeneic hematopoietic cell transplantation (allo-HCT). Mouse and large animal models of GVHD provide foundational information for testing new therapies. Because preclinical models have limitations, it is important to understand how predictive the different models are for clinical translation. Weaknesses include the irradiation only-based conditioning regimen, homogenous donor/recipient genetics, anatomic site of T cells used for transfer in mice, homogenous microbial environment in mice housed under specific pathogen-free conditions, and the lack of pharmacologic GVHD prevention in control groups. Despite these challenges, findings generated in animal models of GVHD have led to the current gold standards for GVHD prophylaxis and therapy. Advantages of these preclinical models includes reproducibility, key for the characterization of the role of a new cytokine, chemokine, transcription factor, microRNA, kinase, or immune cell population in the context of GVHD. As such, small and large animal models have solidified their position in the field as valuable tools to generate preclinical hypotheses, which then have to be rigorously evaluated in the clinical setting. This presentation will discuss several clinical approaches that were motivated by preclinical evidence, novel NHP models and their advantages, and highlight the recent advances in understanding the pathophysiology of GVHD.
**Advances in the Management of Chronic GVHD**

*Daniel Couriel, MD, MS*

Chronic GVHD is the most important long-term complication of allogeneic hematopoietic stem cell transplantation (HSCT). It affects the majority of patients, and the more severe forms can have profound impact on morbidity and mortality. The poor understanding of its pathophysiology, the difficulties in diagnosis, staging and assessment of response, and other obstacles to clinical research like the relative uncommonness of the disease, have all hindered progress in the management of the disease. Thus, corticosteroids continue to be the standard of care in the initial treatment of chronic GVHD, and the single most effective therapy. On the other hand, more recently, newer and potentially more effective secondary therapies have added significantly to our armamentarium, contributing to both efficacy and a steroid-sparing effect. Furthermore, prioritization of multidisciplinary ancillary and supportive care in chronic GVHD has become a central component of the management of these very complex patients that is likely to have a positive effect on outcomes. This presentation summarizes the more significant advances in this field, particularly those that are most likely to have a more significant impact in the lives of HSCT survivors suffering from chronic GVHD.

**Jazz Pharmaceuticals Lunch Symposium**

*“Clinical Challenges Post BMT”*

*Karl Peggs, BA, BM, MRCP*

Details to be released shortly.

**ST2: A Journey from Omics to Therapeutics**

*Sophie Paczesny, MD, PhD*

Graft-versus-host disease (GVHD) remains a devastating complication after allogeneic hematopoietic cell transplantation (HCT). We previously identified high plasma soluble suppression of tumorigenicity 2 (sST2) as a biomarker of the development of GVHD and death. We will show an overview of the discovery of ST2 as a marker and how to implement this finding in clinic for risk stratification. In addition, we will talk about ST2 mechanism of action during GVHD and how sST2 can be blocked or the membrane-bound ST2 (mST2) increased to alleviate GVHD. Indeed, sST2 sequesters interleukin-33 (IL-33), limiting its availability to T cells expressing membrane-bound ST2 (mST2) [T helper 2 (TH2) cells and ST2+FoxP3+ regulatory T cells]. We report here that blockade of sST2 in the peritransplant period with a neutralizing monoclonal antibody (anti-ST2 mAb) reduced GVHD severity and mortality. We identified intestinal stromal cells and T cells as major sources of sST2 during GVHD. ST2 blockade decreased systemic interferon-g, IL-17, and IL-23 but increased IL-10 and IL-33 plasma levels. ST2 blockade also reduced sST2 production by IL-17–producing T cells. These findings suggest that ST2 is a therapeutic target for severe GVHD.
ABOUT CBMTG

The Canadian Blood and Marrow Transplant Group (CBMTG) is a national, voluntary, and multi-disciplinary organization providing leadership and promoting excellence in patient care, research, and education in the field of BMT.

CBMTG’s vision is that Canada will be the best place in the world to have a blood and marrow transplant, and our mission is to be the voice of experts working in the field of blood and marrow transplant.

The CBMTG’s values: excellence, innovation, integrity, collaboration, and professionalism in care, education, and research in blood and marrow transplant. CBMTG believes that every patient has a right of equal access to the highest quality of life saving care that can be provided by blood and marrow transplant professionals in Canada.

Based on this, our strategic priorities are as follows:

Education
Providing high quality educational programs that advance the practice of blood and marrow transplantation in Canada.

Research
Establish and organize an effective and sustainable research infrastructure for translational and clinical research.

Outreach
Increase the visibility and influence of CBMTG among members and the public.

Financial Capacity
To support, education, research, and outreach initiatives through fundraising, partnerships, and the establishment of a charitable organization.

CBMTG Membership:
The CBMTG membership is made up of national and international physicians, nurses, laboratory technicians, pharmacists, and coordinators working in blood and marrow transplant.

FOR MORE INFORMATION, PLEASE VISIT WWW.CBMTG.ORG
NOTES
THE CANADIAN BLOOD AND MARROW TRANSPLANT GROUP IS PLEASED TO ANNOUNCE A SERIES OF THREE MEETINGS IN 2017!

Based on the successful model of the Annual CBMTG GVHD Symposium in Montreal, these meetings will address key issues facing the Canadian BMT field.

May 2017 in Winnipeg, Manitoba
Led by Dr. David Szwajcer and Tracy Robinson, this meeting will include sessions focused on empowerment and resilience in the BMT team.

June 2017 in Calgary, Alberta
Led by Dr. Michelle Geddes, this meeting will focus on Innovation within the BMT field.

September 2017 in St. John’s, Newfoundland
Led by Dr. David Jones, this meeting will focus on pre and post-transplant issues.

These 1.5 day long meetings will include scientific sessions, keynote presentations, multidisciplinary and discipline specific session and corporate satellite symposia.

We invite all BMT healthcare professionals to attend our meetings in 2017!

IF YOU HAVE ANY QUESTIONS, PLEASE CONTACT:
CBMTG Head Office: Suite 301, 750 West Pender Street, Vancouver, BC, V6C 2T7
T: 604-874-4944 F: 604-874-4378 E: cbmtg@cbmtg.org W: www.cbmtg.org