

# Bulletin



The Canadian Society of Plant Biologists/  
La Société canadienne de biologie végétale



## Message from the President Message du Président

***Dr. Geoffrey Wasteneys***

Dear CSPB/SCBV Members



Welcome to another northern summer. For many CSPB members, this represents a shift from teaching to intensive research, for others the time to get the field trials completed, and for everyone, this is conference season. Our AGM this year will be big as we join up with two other societies, our much larger sister society, the American Society of Plant Biologists (ASPB), and the International Society of Photosynthesis Research. Plant Biology 2018 will be held from July 14-18 at the Palais des congrès de Montréal. This conference has been in the planning stages for several years. Anja Geitmann and I, as part of the Scientific Planning Committee, have been meeting with our ASPB and ISPR counterparts since September 2016 to organize the scientific program. Last year, we welcomed François Ouellet from the Université de Québec à Montréal, who, together with Anja, is busy planning the local events associated with this large conference.

At Plant Biology 2018, you can look forward to plenary talks in five major symposia covering Translational Science, Cell and Developmental Biology, Innovative Technologies, the Ecophysiology of Photosynthesis, and Mechanisms of Genome Evolution, plus an awards symposium on Sunday that will feature our 2017 CD Nelson Award winner, Marcus Samuel. Be sure to attend the CSPB President's Symposium on Sunday July

15: Integrative Signals in Plant Cell Biology and Development. I am very pleased to bring together four brilliant scientists: Liz Haswell from Washington University in St Louis, Mark Estelle from the University of California, San Diego, Daphne Goring from the University of Toronto, and Karin Schumacher from the University of Heidelberg (Germany). Their presentations will highlight exciting discoveries that help us better understand sensory, transcriptional and physiological responses in plants.

While the plenary sessions are reason enough to attend the meeting, prepare to be dazzled with a huge selection of concurrent talks, hundreds and hundreds of posters, a wide range of technical and career-focused workshops, and trade displays. Expand your network at the planned social events, which include a Saturday evening reception for all participants, a CSPB/SCBV mixer and awards event on

Monday evening, and the closing party on Tuesday evening. Montreal is a fabulous city to explore, and the conference venue is in the most historic part of town, close to many cultural attractions.

In addition to the scientific program, Plant Biology 2018 is when the CSPB conducts our annual business meeting. I encourage everyone to attend this meeting, which is scheduled for Tuesday July 17th from 5:30 to 6:30pm. This is your opportunity to hear about what the executive and committee members have been up to, vote on important decisions, and contribute your ideas. The business meeting will also be the point at which we will announce the Presidents Award for best student poster – please see the Vice-President’s message for more details.

Make sure you are well rested before coming to Plant Biology 2018. It is going to be an experience.

In the Fall 2017 Bulletin, I raised concern regarding the state of research funding in Canada, and the complete failure of the Government of Canada to respond to the recommendations of the panel led by David Naylor in 2017 to make substantial funding increases for basic research. Since then, there is some reason for cautious optimism, with the government announcing on February 27, 2018 an additional four billion dollars in funding over the next five years. NSERC’s share of this amounts to \$454.7 million. While falling short of the Naylor Report recommendations, this is undoubtedly the largest single increase in Canadian federal funding for fundamental science research. How that will translate into the NSERC Discovery program, which is the foundation support for fundamental research for most of us, remains unclear.

CSPB ran two very successful regional meetings late last year: the Eastern Regional Meeting was held on November 25th at the McDonald campus of McGill University, and the Western Regional Meeting took place from Dec 10th to 12th in Winnipeg. The details of these two meetings are found in the Vice-President’s and Western Regional Director’s reports.

Looking forward to next July, CSPB will be hosting the Plant Canada 2019 Conference in Guelph. This meeting will bring together seven societies including CSPB, the Canadian Botanical Association, Canadian Society for Horticultural Science, Canadian Weed Science Society, Canadian Association for Plant Biotechnology, Canadian Phytopathological



Bull whip kelp (*Nereocystis luetkeana*)  
from wikipedia commons



Society, and the Canadian Society of Agronomy. Barry Micallef has very generously agreed to chair the Local Arrangements Committee and will be working closely with our Eastern Regional Director Robert Mullen, who has kindly agreed to chair the fundraising committee. As President of the host society I will be chairing the Scientific Planning Committee, and welcome any suggestions you might have.

As always, a very big thank you to all members of the executive and our numerous committees who have volunteered their time, talent and energy to keep CSPB amazing. I would like to take this opportunity to thank, in particular, the volunteers on two ad-hoc committees, the Equity

and Diversity Taskforce (Allison McDonald, Ken Wilson, Heather McFarlane and Janice Cooke) and the Committee tasked with establishing the terms of reference for the new Carl Douglas Prize for post-doctoral fellows (Robert Mullen, Jacqueline Monaghan, Robert Guy). At the CSPB Business Meeting on July 17, the recommendations of the Equity and Diversity Taskforce and the terms of reference of the Carl Douglas Prize Committee will be presented and discussed.

Three members of the executive will be stepping down at this year's AGM. I would like to take this opportunity to thank Mark Belmonte (University of Manitoba) who has been Western

Director since 2015, and Shrikaar Kambhampati (Western) who has been our Student / Postdoctoral Representative since 2016. Finally, on behalf of the whole society, I will also take this opportunity to express deepest gratitude to Barry Micallef (University of Guelph) who, after serving four consecutive two-year terms, will be stepping down as Secretary, but stepping up to organize Plant Canada 2019.

À bientôt à Montréal

Geoffrey Wasteneys  
The University of British Columbia  
President CSPB/SCBC

## Message from the Vice-President Message du vice-président

**Dr. Daphne Goring**  
University of Toronto

We had a very successful Eastern Regional Meeting held last November 24-25 at Macdonald campus, McGill University. I filled in for Robert Mullen, our Eastern Regional Director, to organize the student presentation judging as Robert was off on quite an adventure of a lifetime which had been planned some time ago! The meeting started off with two plenary lectures: Dr. Anne-Lise Rouhier-Kierzkowska (Université de Montréal, How plants use physics to survive and thrive), and Dr.

David Des Marais (Massachusetts Institute of Technology, GxE and the genomic basis of environmental response in plants). These presentations were followed by three concurrent sessions covering plant development, regulation and metabolism, and abiotic stress. We took a break for lunch, which was followed by poster presentations and three more concurrent sessions covering biotic interactions, growth and regulation, and bioinformatics and molecular tools. Dr. Shelley



Lumba (University of Toronto) wrapped up the meeting with a final plenary lecture (How parasitic weeds wake up: Cracking the germination code). All-in-all, a busy day full of very interesting presentations! I would like to extend a big thanks to the co-chairs, Jean-Benoit Charron and Olivia Wilkins, and the organizing committee for all their hard work in organizing this meeting. Thanks

also to all the judges and volunteers who were actively involved in running this meeting.

The judges for the student presentations were kept busy judging 26 student oral presentations and 16 student poster presentations (all in a one-day meeting). I congratulate the students in presenting high calibre oral and poster presentations, and as always generating quite a discussion with the judges in selecting the following winners and honorable mentions:

Oral presentation winners: The Director's Award for the best oral presentation went to Eliana Vonapartis (University of Toronto-Scarborough, Exploring the role of XERICO in *Arabidopsis thaliana* development and stress response). Honorable mentions went to Greg MacNeill (University of Guelph, Regulation of *Arabidopsis* Starch Branching Enzyme 2.2) and Valentin Joly (Université de Montréal, Deciphering species-specific pollen tube guidance in *Solanum*).

Poster Presentation winners: The Director's award for the best poster presentation went to Laura Corrigan (Carleton University, Investigating a role for homeodomain transcription

factors in differentiating abscission zones in *Arabidopsis*). Honorable mentions went to Farzaneh Tamnanloo (Concordia University, MKP1 controls stomatal cell fate differentiation during stomatal development in *Arabidopsis*) and Mohannad Mahmoud (McGill University, Transposons Tagging System as a Tool for Functional Genomics in Oat, *Avena sativa*).

Plant Biology 2018, the Joint ASPB-CSPB/SCBV meeting is coming up very rapidly (Montreal July 14-18, 2018); please see President Geoffrey Wasteneys' message for more details on this meeting. The society had a record number of student/postdoctoral applicants for the George H Duff Travel Bursary. It's great to see such a strong interest from our student/postdoc members to attend this meeting, and the society ended up allocating a record amount of funding to assist these members with their travel costs. Just a reminder that, given the more limited opportunities for student oral presentations at Plant Biology 2018, we will be only offering a CSPB student poster presentation competition. If you would like to participate in this competition and are selected for an oral

presentation, please also indicate that you will be bringing a poster to present at the meeting. Finally, I will be looking for judges to help out with this competition so please consider volunteering when you see my email...

Please also look out for notices to attend the CSPB/SCBV Annual Business Meeting at Plant Biology 2018. One of the items that I will be discussing is the report submitted by the Equity and Diversity Taskforce in June 2017. Past-president Anja Geitmann had assembled the Equity and Diversity Taskforce in June 2016 with the goal of developing an equity and diversity policy for the society. The CSPB/SCBV Executive has been working towards developing and implementing equity and diversity policies based on the taskforce recommendations, and I will provide an update at the AGM.

I look forward to seeing many of you in Montreal at Plant Biology 2018.

Daphne Goring  
University of Toronto  
CSPB Vice President

## Upcoming Annual Meetings:

**2018 Plant Biology 2018 (Joint ASPB-CSPB/SCBV), Montreal July 14-18, 2018.**

Local Organizing committee: Anja Geitmann, François Ouellet and colleagues.

**2019 Plant Canada, University of Guelph July 7-11, 2019.**

Local Organizing committee: Barry Micallef and colleagues.

**2020 CSPB/SCBV Annual General Meeting, Saskatoon.**

Local Organizing committee: Raju Soolanayakanahally and colleagues at AAFC, NRC and the University of Saskatchewan.

# Treasurer's News

**Dr. Sheila Macfie**

Western University

**Congratulations:** July 1, 2018 marked the end of Chris Wong's (Ingo Ensminger's lab, University of Toronto) successful tenure as an Ann Oaks Doctoral Scholarship holder. Chris has been a stalwart of CSPB meetings and it will be interesting to follow his career trajectory. I am pleased to announce that our new Scholarship winner is Elizabeth Mahon (Shawn Mansfield's lab, University of British Columbia).

**Membership:** By now, most of you will have noticed the recent slight increases in membership fees, which were approved by the membership last summer at the annual meeting in Vancouver. The membership dues are used to support day-to-day business of the Society, and to supplement funds allocated to our various awards and the ever-popular George H. Duff Travel Bursary (<http://www.cspb-scbv.ca/awards.shtml>).

Membership continues to hold steady at about 400, with a healthy contingent of student and postdoctoral members. New members from any area of study within plant biology are welcome and I encourage current members to promote our Society to their colleagues. The annual membership fees are still very reasonable and the application process is simple (on-line: [http://www.cspb-scbv.ca/membership\\_paypal.shtml](http://www.cspb-scbv.ca/membership_paypal.shtml)

or by mail: <http://www.cspb-scbv.ca/documents/MembershipForm.pdf>). Membership renewal is equally easy and the forms can be accessed through the websites listed above. Des versions françaises des formulaires d'adhésion sont aussi disponibles (<http://www.cspb-scbv.ca/membership-f.shtml>). If you are one of many who have trouble remembering to renew your membership every year, there are options to renew for up to three years at a time.

**Donations:** At the bottom of the on-line membership form, you will notice an opportunity to make a donation to one of our charitable funds: the George Duff Travel Fund and the Ann Oaks Scholarship Fund. Donations to the soon-to-be established Carl Douglas Prize (for postdocs) are also welcome.

The Duff travel bursary program ([http://www.cspb-scbv.ca/awards\\_travel.shtml](http://www.cspb-scbv.ca/awards_travel.shtml)) was established to offset travel costs to the annual CSPB-SCBV meeting for some student and post-doc members of the Society. The application deadline for 2018 has passed and the total number and value of Duff Travel Bursaries for this year will be announced at the upcoming conference in July in Montréal.



The Ann Oaks Doctoral Scholarship Fund ([http://www.cspb-scbv.ca/awards\\_oaks.shtml](http://www.cspb-scbv.ca/awards_oaks.shtml)) was established by the late Dr. Ann Oaks and is topped up by donations from Society members. The value of the award is equivalent to an NSERC PGS-D. Students of Plant Biology who apply for an NSERC scholarship are automatically considered for this award (no extra application is necessary). The scholarship can be held by only one student at a time and is renewable for a total of three years of support.



# Western Regional Meeting

December, Winnipeg

Report by Mark Belmonte - Western Regional Director

The first ever Joint Western Regional Meeting of the Canadian Society of Plant Biologists and the Canadian Botanical Association took place December 10-12, 2017 in beautiful downtown Winnipeg. Chaired by Dr. Mark Belmonte (CSPB) and Dr. John Markham (CBA), Department of Biological Sciences at the University of Manitoba, the meeting brought together scientists, professionals, postdocs, and grad students with broad research interests in biotechnology, cell biology, genomics and genetics, plant evolution, adaptation, ecology, forestry, to

name but a few.

The meeting kicked off with an all-day RNA seq workshop organized by Dr. Mark Belmonte and led by his graduate students, Michael Becker, Joey Wan, and Philip Walker. This sold-out event provided faculty, students, and research associates with hands on training in the processing and visualization of next generation RNA-seq data. Later that evening, over 85 delegates from across the western region gathered at Brown's Social House to catch up with old friends and to meet with



one another over good food and plentiful drinks.

The scientific presentations started off in the morning of December 11 at the ALT Hotel Winnipeg with our keynote address by Dr. Jill Hamilton, North Dakota State University, who talked about "Teasing apart the genetic basis of adaptation in a changing climate". Plenary speakers Dr.



From left: Mark Belmonte (Meeting co-chair), Nathalie Hoffman (Poster Award Winner), Geoff Wasteneys (CSPB President), and John Markham (CBA Past President)



From left: Mark Belmonte, Laryssa Halat (Director's Oral Presentation Award), Geoff Wasteneys, and John Markham.

Bruce Ford (CBA, UofM Biological Sciences) presented his work on “Sedges of Vietnam: Species discoveries and insights into the evolution of *Carex* (Cyperaceae)” and Dr. Belay Ayele (CSPB, UofM Plant Science) spoke on the “Molecular aspects of traits of economic importance in wheat”.

Students and faculty representing every province from across the western region gave insightful oral and poster presentations that kept the audience wanting more with their excellent caliber of cutting-edge science.

Day 1 of the scientific agenda wrapped up with a delicious banquet followed by an uplifting presentation by Dr. Kevin Scott (Biological Sciences, UofM) and his ‘fabulous flora’. Kevin’s fun and interesting approach in teaching fundamentals of plant biology is used to reinforce biological concepts for first year university students. The meeting concluded December 12 with a luncheon and the announcement of student presentation awards.

Oral presentation winners: CSPB Director’s Oral Presentation Award (Laryssa Halat, UBC, Botany), Plant Canada Oral Presentation Award (Steven Anderson, UofM, Biological Sciences), a tie for the Joint Western Regional Meeting Oral Presentation Award (Ian Willick, UofS, Plant Sciences, and Austein McLoughlin, UofM, Biological Sciences), and honourable mentions (Jeremy Morris, UofC, Biological Sciences, and Maryam Nourimand, UofS, Biology).

Poster presentation winners: CSPB Poster Presentation Award (Nathalie Hoffman, UBC, Botany), Joint Western Regional Meeting Poster Presentation Award (Azizah Altharthy, UofM, Biological Sciences), and honourable mentions (Paige Anderson, UofM, Biological Sciences, and Kenny So, UofM, Plant Science). The success of the conference would not have been possible without the efforts of the local organizing committee (Mark Belmonte, John Markham, Sylvie Renault, Jake Stout, Kevin Scott),

numerous volunteers, judges, and session chairs who made sure the meeting ran smoothly and without a glitch. We also thank sponsors for their generous support of plant biology: Life Science Association of Manitoba, Canadian Society of Plant Biologists, Canadian Botanical Association, Department of Biological Sciences (UofM), Office of the Vice President Research and International (UofM), the Faculty of Science (UofM), Integrated DNA Technologies, Ag-West Bio, North Star Genetics, BioChambers, Canadian Science Publishing, Stoller Enterprises, Pearson Publishing, New England BioLabs, VWR, ATP Nutrition, Plant Canada, and ThermoFisher Scientific.

Additional information about the meeting can be found here: <http://cspb-cba-wrm-winnipeg2017.weebly.com>

With delegates representing every province in the western region, PEI, and North Dakota, this hugely successful event will be one to remember!

Photo credits: Kira Koop and Joey Wan



Keynote Address by Dr. Jill Hamilton of North Dakota State University, who talked about “Teasing apart the genetic basis of adaptation in a changing climate”



# Eastern Regional Meeting

**December, Montreal**

Report by Dr. Olivia Wilkins - Meeting Co-Chair

On November 24th and 25th, we had the pleasure of hosting the 2017 Eastern Regional Meeting at the historic Macdonald Campus of McGill University. The meeting brought together more than one hundred plant scientists from across Eastern Canada and beyond, working on an inspiring diversity of topics in contemporary plant biology.

Twenty seven was the 110th anniversary of the establishment of Macdonald College in Ste. Anne de Bellevue, now the Macdonald Campus of McGill University, and we wanted the 2017 ERM to reflect this history. We kicked off the meeting with a reception at the campus pub 'The Ceilidh'. In addition to the standard refreshments, conference participants were entertained by a live bluegrass band and were invited to join in some high-energy contra dancing, a Mac Campus tradition. The pull of the dance floor proved irresistible for many conference-goers, and it quickly became the place to reconnect with old colleagues and to meet new ones before the meeting started the following morning.

The plenary sessions at the conference showcased the ambitious and innovative work being done by early-career researchers; all three plenary speakers had taken up new Faculty positions in 2017. Anne-Lise Routier-Kierzkowska (Institut de recherche en biologie

végétale; Université de Montréal) opened the session with a wonderful and accessible talk on plant biophysics. Next up, Dave Des Marais (Massachusetts Institute of Technology) presented his research on advances in the study of genotype by environment interactions using genomic data. Finally, Shelley Lumba, University of Toronto, closed the day with a compelling talk on the germination code of the parasitic weed *Striga hermonthica*. In addition to the plenary speakers, thirty researchers presented short talks in concurrent sessions and more than twenty researchers presented their work during the poster session. Student Laura Corrigan (Hepworth Lab, Carleton University) was awarded the top prize for her poster presentation

“Investigating a role for homeodomain transcription factors in differentiating abscission zones in Arabidopsis”. Student Eliana Vonapartis (Gazzarrini Lab, University of Toronto Scarborough) was awarded the top prize for her oral presentation, “Exploring the role of XERICO in Arabidopsis thaliana development and stress response”.

During one break in the scholarly sessions, we were entertained by a demonstration by the award-winning McGill Macdonald Campus Woodsmen and Women's teams. The lumber sports teams were established more than 40 years ago and have won dozens of titles in Canada and internationally. For the ERM, the team wowed conferees with the athleticism and flair of their speed log chopping and team Swede saw demonstration.

The meeting would not have run as smoothly or been as much fun without the excellent work of



Getting warmed up for Plant Biology at the Eastern Regional Meeting



many volunteers. We would especially like to thank Michael Stasiak for supporting the website, and Daphne Goring for organizing judges for the poster and oral presentation student competitions. All told, the ERM was a celebration of contemporary plant biology grounded in the history of a century-old agricultural campus - the best of both worlds.

Olivia Wilkins and Jean-Benoit Charron, co-organizers



Dr. Anne-Lise Routier Kierzkowska from Université de Montréal, one of the ERM Keynote Speakers, getting ready to open the meeting.



## Eastern Region Report

**Dr. Robert Mullen**

University of Guelph - Eastern Regional Director

Please mark your calendars for later this year! While it is still a few months away, I would like to remind you about the upcoming Eastern Regional Meeting (ERM), which is being held November 23-24, 2018 at the University of West-

ern Ontario in London and hosted by Danielle Way. The meeting will be a wonderful opportunity to catch up on the latest discoveries in plant science, build on existing collaborations and make new ones, as well as spend time with colleagues and friends, all in the venue of the beautiful University of Western Ontario campus in the fall.

Just as a FYI, here are the locations and hosts of other Eastern

Regional Meetings in upcoming years:

- 2019 - Brock University, hosted by Vincenzo De Luca
- 2020 - Concordia University, hosted by Jin Suk Lee
- 2021 - Carleton University, hosted by Owen Rowland and Shelley Hepworth

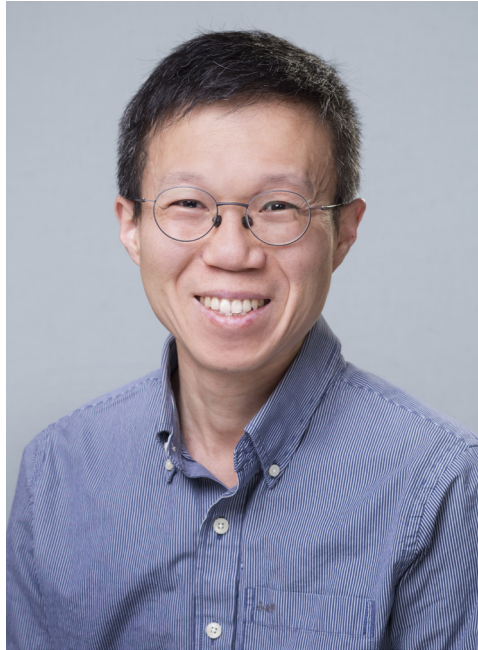
Warmest regards,  
Robert Mullen

# The CSPB Welcomes New Faculty

Byung-Kook (Brian) came to the University of Saskatchewan from University of California-Davis (UC-Davis) in January 2018, as an Assistant Professor in the Department of Biology. He is also a research chair in the Global Institute for Food Security (GIFS).

Brian received his Doctor of Philosophy degrees in Molecular Biology from Korea University, South Korea, in 2003. In 2005, he joined Dr. William J. Lucas' laboratory in the Department of Plant Biology, UC-Davis, as a postdoctoral fellow, and then continued his career as Assistant and Associate Project Scientist in UC-Davis.

His research interests involve the transport and function of signaling molecules (RNA, proteins) in the plant vascular system throughout the plant. Brian currently focuses on characterization of vascular system-mediated systemic signaling agents, including mRNA, micro-RNA molecules and signaling proteins, that function in the molecular regulation of macronutrient (N, Pi, and K) uptake by the roots. He utilizes various plant biological approaches to validate the role(s) that these systemic signals play in the integration of root and shoot growth, under optimal and nutrient-stress (mineral deficiency) conditions.



Dr. Byung-Kook (Brian) Ham,  
Department of Biology and  
the Global Institute for Food  
Security, University of Sas-  
katchewan





## The CSPB Executive Committee Members:

Left to right and top to bottom: Geoffrey Wasteneys, President (UBC); Anja Geitmann, Past President (McGill); Daphne Goring, Vice President (U Toronto); Barry Micallef, Secretary (U Guelph); Sheila Macfie, Treasurer (Western U); Robert Mullen, Eastern Regional Director (U Guelph); Mark Belmonte, Western Regional Director (U Manitoba); Ingo Ensminger, Communications Director and Bulletin Editor (U Toronto); Steven Chatfield, Education Director (U Toronto); Owen Rowland, Science Policy Director (Carleton); Shrikaar Kambhampati, Student/PDF Representative (Western U); Jean-Benoit Charron, Senior Director (McGill).

## Committee Members / Composition des Comites:

### **Membership Officer:**

Harold Weger (Regina)

### **Archivist:**

Étienne Lepage (Agri Can)

### **Ann Oaks Scholarship Committee:**

Harold Weger (Regina) Chair 2014-2018  
 Elizabeth Weretilnyk (McMaster) Co-Chair 2014-18  
 Doug Campbell (Mt Allison) 2015-19  
 Sharon Regan (Queen's) 2016-20  
 Sheila Macfie (Western Ontario) 2017-19  
 George Espie (UT Mississauga) Advisor 2017-21

### **C.D. Nelson Award Committee:**

Annick Bertrand (AAFC, Québec) Chair 2015-18  
 Janice Cook (Alberta) 2016-18  
 Jennifer Baltzer (Wilfrid-Laurier) 2016-18

### **Communications Committee:**

Ingo Ensminger (Toronto) Chair 2017-19  
 Jacqueline Monaghan (Queen's) 2015-18  
 Barry Micallef (Guelph) 2016-18  
 Michael Stasiak (Guelph) webmaster

### **David J. Gifford Tree Physiology Award Committee:**

Armand Séguin (NRC Québec) Chair 2015-18  
 Joerg Bohlmann (British Columbia) 2016-19  
 Olivia Wilkins (McGill) 2017-20

### **Education Committee:**

Steven Chatfield (Toronto) Chair 2017-19  
 Jin Suk Lee (Concordia) 2015-18  
 Jake Stout (Manitoba) 2016-19

***Gleb Krotkov Award Committee:***

Bhinu Pillai (Dow AgroSciences) Chair 2015-18

Jaswinder Singh (McGill) 2016-19

Robert Mullen (Guelph) 2017-20

***Nominating Committee:***

Jean-Benoit Charron (McGill) Chair 2017-19

Steeve Pepin (Laval) 2017-20

Greg Moorhead (Calgary) 2015-18

***Ragai Ibrahim Award Committee:***

Jacqueline Bede (McGill) Chair 2016-19

Shrikaar Kambhampati (Western) 2016-18

Jean Danyluk (UQAM) 2016-19

Cara Haney (UBC) 2017-20

***Society (Gold) Medal Award Committee:***

Greg Vanlerberghe (U. of Toronto) Chair 2015- 18

Peter Moffett (Univ. Sherbrooke) 2016-19

Doug Muench (Calgary) 2017-20