



A sign of the times, plant themed masks in the era of Sars-Cov2 and COVID19
(photo credit: Susanne Kohalmi)

OCTOBER / OCTOBRE 2020

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Message from the President

Daphne Goring University of Toronto

It has no doubt been an unusual time for my first year as CSPB/SCBV President. The Covid-19 pandemic resulting in the postponement of two 2020 CSPB/SCVB meetings (Annual meeting in June and Eastern regional meeting in November), and we are now busily planning our first virtual scientific meeting as a replacement for this year (see page 8 for upcoming meetings).

The CSBP/SCBV 2020 Virtual scientific meeting will be held on Saturday, November 7th from 12:00 pm to 6:00 pm EST. The meeting will start with a plenary session with several invited speakers, including three CSPB award winners. This will be followed by concurrent sessions, where members, including students and post-docs, will have the opportunity to give oral presentations (from submitted abstracts). As well, Robin Cameron (CSPB VP) and Robert Mullen (CSPB ERD) will be organizing the student oral presentation competition for students presenting in the concurrent sessions.

Abstract deadline: Mon. Oct. 5, 2020
Registration deadline: Mon. Oct. 26, 2020

There will be no fee for registration, but participants will need to be current members of our society. For more details on the meeting and registration/abstract submission, please visit <https://event.fourwaves.com/cspb-scbv/>

I am chairing the organizing committee consisting of: Daphne Goring (U Toronto), David Bird (Mount Royal U), Philip Carella (U Cambridge/Sainsbury Laboratory), Qing-Lai Dang (Lakehead U), Jinsuk Lee (Concordia U), Ian Major (Michigan State U), Jaideep Mathur (U Guelph), Adam Mott (U Toronto Scarborough), Brendan O'Leary (U Western Australia), Teagen Quilichini (NRC Saskatoon), and Vera Velasco (U Toronto Mississauga). It's great to be working with this enthusiastic group with lots of great ideas being brought into the discussions.

This year also brought our first virtual meeting for the 2020 Annual Business Meeting (Annual Meeting of



Members) on August 26, 2020 (see page 10). We had a good turn out with 42 members joining in via Microsoft Teams. In the meeting, we covered the reports of officers (including motions by the treasurer) and another set of by-law amendments. Please see David Bird's report for more details. We welcome Jennifer Hoogenboom (University of Guelph) as the new Student/Postdoctoral Fellow Representative on the CSBP/SCBV executive and thank Ryan Eng who served in this position for the last 2 years for his excellent contributions to our society (see page 6)! We also welcome the new members to our various committees and thank the members who have finished their terms for their valued service to our society.

It was my great pleasure to announce the 2020 winners for four CSBP/SCBV awards at the 2020 Annual Business Meeting, including our inaugural winner for the new Mary E. Spencer Award.

2020 Mary E. Spencer Award
Dr. Anja Geitmann, McGill University

2020 C.D. Nelson Award
Dr. Mark Belmonte, University of Manitoba

2020 Carl Douglas Prize
Dr. Philip Carella, University of Cambridge/Sainsbury Laboratory

2020 Ragai Ibrahim Award for Best Student Paper
Winner: Mina Ghahremani, Queen's University
Honorable Mention: Samuel Livingston, University of British Columbia

Congratulations to all the winners! You can read all about their impressive contributions in the award citations on the website and in this issue of the bulletin (page 15).

As a society, we are strongly committed to promoting Equity, Diversity and Inclusion in our society. Following up from the CSPB-SCBV Diversity and Equity Task Force Report June 19 2017 and the 2018 CSPB-SCBV Implementation plan for Diversity and Equity Report, a number of changes were implemented. To continue this ongoing effort, Vice-President Robin Cameron is overseeing the planning of new initiatives which you can read more about in her report.

2021 CSBP/SCBV awards: Do take this opportunity to recognize a colleague, mentor, peer, or student for their achievements and contributions to plant sciences.

The nomination deadline for all available awards will be February 1, 2021. Please look out for the emails calling for award nominations. All Awards documents are available on the CSPB/SCBV website.

Finally, we are always looking for volunteers to get involved in the various CSPB/SCBV committees and the CSPB/SCBV Executive (several executive positions will come open this year). If you are interested or have any questions, please feel free to contact myself (president@cspb-scbv.ca) and our Senior Director, Jean-Benoit Charron (seniordirector@cspb-scbv.ca).

I hope everyone is keeping well in these challenging times.

Daphne Goring
CSPB/SCVB President

Message from the Vice President



Robin Cameron
McMaster University

I hope your first full term during the Covid-19 pandemic is going as well as can be expected in these challenging times. I reported on the items below in my VP Report for the AGM in August and include them here, in case you missed this report. Additional details have been added to the EDI item, so please take a look.

Enhancing Equity, Diversity and Inclusion (EDI) in CSPB/SCBV

Over a number of years, CSPB/SCBV has made substantial efforts to enhance EDI in our society, culminating in the Report on the Implementation of the CSPB Diversity and Equity Taskforce (DET) Recommendations in 2017 (<http://www.cspb-scbv.ca/documents.shtml>). The DET was initiated in 2016 by

then president Anja Geitmann as there was concern that society awards were gender skewed. DET consisted of Janice Cooke, Heather McFarlane, Ken Wilson and Alison McDonald (chair). Based on the recommendations of the DET report, VP Daphne Goring and President Geoff Wasteneys led CSPB/SCBV in amending our By-laws to include EDI principles, created new awards (Carl Douglas prize for postdoctoral fellows & the Mary Spencer Award for mid-career researchers) and made EDI a key consideration of the Nominating Committee (with help from the Western and Eastern Regional Directors) when filling committee positions and for finding new executive members. One recommendation that is still outstanding from this report is to conduct a survey of members to get a sense of barriers to committee and executive participation. In July, CSPB/SCBV member, Dr. Jacqueline Monaghan contacted me as she was inspired by the #ShutDownSTEM campaign and had ideas to further enhance EDI and the experience of under-represented people in our society. After discussing this, we realized that we needed to know more about the make-up of our society and to solicit ideas from CSPB/SCBV members in order to continue to enhance EDI in our society.

Global Plant Council wants our plant research stories

The Global Plant Council (GPC) (<https://globalplantcouncil.org/>) is a coalition of organizations (including CSPB/SCBV) representing plant, crop, agricultural and environmental sciences across the globe. The GPC mission includes facilitating the development of plant science for global challenges, fostering international collaborations and enabling the effective use of knowledge and resources, providing an independent and inclusive forum to bring together all those involved in plant and crop research, education and training. To succeed in their mission, GPC have developed an impressive web site for advocacy and promotion of plant science. Additionally, GPC has established an Early Career Researcher (ECR) international network in which ECRs create 1-minute videos to promote themselves to the GPC community (web site and twitter). I recommend that our ECR CSPB/SCPV members consider participating. GPC also showcases plant research on their web site and social media and are always looking for engaging and interesting stories about plant research to post to Twitter (@GlobalPlantGPC) and

the GPC News web page (<https://globalplantcouncil.org/news/>). This is especially important as 2020 is the UN International Year of Plant Health and 2021, is the UN Year of Fruits and Vegetables. I know that many of you have interesting plant research stories that should be shared. Please send them to me and I will relay them to the Global Plant Council (via Plant Canada).

Upcoming CSPB/SCBV Annual Meetings

2020 – CSPB Virtual Annual Meeting, November 7th, 12:00 pm to 6:00 pm EST

2021 – CSPB at University of Saskatchewan in Saskatoon

2022 – Joint CSPB/ASPB meeting in Portland, Oregon

2023 – CSPB at Dalhousie University in Halifax

2024 – Plant Canada, TBD: lead society and location

Stay well,

Robin Cameron
CSPB/SCBV Vice President

Treasurer's News

Sheila Macfie
University of Western Ontario

Membership: 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 had been holding steady at about 400, with a healthy contingent of student and postdoctoral members. However, the postponement of our annual summer meeting understandably resulted in a dramatic drop in student members. Our current membership sits at around 270. I hope that some new students join and former students re-join to attend the on-line meeting in November 2020. New members from any area of study within plant biology are welcome and I encourage current members to promote our Society to their colleagues.



Donations: I encourage members to make a donation to any of our Award or Bursary Funds. These include The George Duff Travel Bursary for student and pdfs, the Ann Oaks Doctoral Scholarship, the Carl Douglas Prize for pdfs, and the Mary Spencer Award for mid-career scientists. Donations may be made via the Society website, and donations at or above \$10 CAN receive a receipt for tax purposes.

Sheila Macfie
CSPB/SCBV Treasurer

Message from the Past President



Geoffrey Wasteney
University of British Columbia

2020 is the International Year of Plant Health. What cruel irony that the opportunity to celebrate and highlight the importance of the work of plant biologists has been overshadowed by the biggest human health crisis in living memory. When my term as CSPB President ended last July, I took on a new role as President of Plant Canada, the umbrella organization of seven professional societies and associations, and a founding member of the Global Plant Council. I was looking forward to a year of publicizing the cutting-edge research of plant scientists, and advocating the benefits to society of funding plant research. In the scramble to mitigate and hopefully eradicate the Covid 19 virus, governments around the globe have diverted vast financial resources, and are going massively into debt. In the midst of this unprecedented health crisis, and economic downfall, it is even more important to safeguard our agricultural systems against failures. Sadly, raising the alarm right now that plant health matters would be a whisper in a riot; a “me too” movement that would not get any traction.

Finding creative ways to sustain the CSPB/SCBV community is more relevant than ever in what has become our 2020 Covid 19 “gap” year. One year ago, I was feeling overwhelmed with having to decide which conferences to attend in 2020. Having been on the organizing end of each CSPB meeting since 2014, I was also looking forward to going to Saskatoon in June to watch the CSPB meeting unfold without - for a change - any official responsibility. Missing an AGM is annoying for everyone but it is a major opportunity cost for the students, post-docs and early career researchers. The unavoidable postponement of our “annual” meeting to

2021 has left us all feeling unfulfilled, and it is therefore critical that we find ways to keep our connections fresh as we navigate through what will hopefully be just one particularly nasty year. At this point, we need to be prepared for the real possibility that June 2021 might be too soon for our next meeting.

Since March, the lock-downs, the travel restrictions, and the lab shut-downs have profoundly impacted our professional and personal lives. I urge everyone to consider some positive outcomes arising from this crisis that go beyond perfecting culinary or gardening skills while stuck at home. Six months ago, I did not think I would be teaching first-year biology to students located across Canada and overseas, that my graduate students would be receiving tuition on techniques on WhatsApp, or that all lab, committee meetings and defenses would be conducted online. With limited access to the laboratory, researchers now have more time to delve into the literature, and carefully plan their experiments. Scientists from abroad who we might never have been able to fly in can now be part of our seminar series. And while we all look forward to the return of in-person meetings, the ability to hold virtual meetings, such as the upcoming CSPB/SCBV 2020 meeting this November 7, provides many with the opportunity to attend a meeting that would otherwise be out of reach.

On a final note, as President of Plant Canada, I am always on the look-out for examples of innovative and impactful plant science research projects. Please contact me if you would like to share your story.

Stay Safe,

Geoffrey Wasteney
CSPB/SCBV Past-President

Message from Outgoing & Incoming CSPB Student and Post-doctoral Representative



Much like our academic and personal lives, the CSPB/SCBV has been disrupted due to the COVID-19 pandemic. For the now-postponed annual CSPB/SCBV meeting in Saskatoon, I had planned two workshops focusing on science communication and mental health. Fortunately, the annual meeting has been tentatively moved to June 2021 so stay tuned for more information on the meeting and the workshops being offered.

In lieu of the postponed 2020 meeting, the society is offering a virtual scientific meeting on Saturday, November 7th. I encourage everyone to submit an abstract for a talk as there will be no opportunities to present poster presentations. This is a great chance to share your work and interact with other researchers. This meeting is free and only requires that you are a member of the CSPB/SCBV- please make sure that you have renewed your annual CSPB/SCBV membership.

I was fortunate to sit on the committee for The Ragai Ibrahim Award that recognizes an outstanding publication by a student of the society. We received multiple nominations this year but I would like to encourage Principal Investigators to nominate more of their students' work. We have great research led by students from our society so it will be great to see their work being recognized.

This was my final term as the CSPB/SCBV Student and Postdoctoral Representative. It has been a pleasure to work with the CSPB/SCBV Executive Board and to serve the students and postdocs of the society. I would like to welcome Jennifer Hoogenboom from the University of Guelph who was elected by our student and postdoctoral peers to serve as the next Student and Postdoctoral Representative for the 2020-2022 term.

Wishing everyone a safe and healthy autumn!

Dr. Ryan Christopher Eng
Outgoing CSPB/SCBV Student and Postdoctoral Representative

It is an extreme honor to be passed the torch to serve as the CSPB/SCBV Student and Postdoctoral Representative. I'm privileged to represent the needs of the current student and post-doctoral members of the Society and hope to bring in exciting professional developments, workshops and updates relevant to obtaining a high-quality student experience. One of the main objectives of my position is to provide a liaison between the CSPB, students and post-docs who could benefit from the numerous funding opportunities, networking events and available positions in the job market.

Currently, I'm a Masters student in Dr. Dixon's laboratory at the University of Guelph. I also conducted my bachelor's degree at the University of Guelph in Plant Science. The main focus of my research is characterizing the LED light recipe of Cannabis spp. in controlled environment systems. Looking forward to an exciting new term with you all!



Jennifer Hoogenboom
Incoming CSPB/SCBV Student and Postdoctoral Representative

CSPB Welcomes New Faculty

Prepared by Jacqueline Monaghan, Queen's University

Dr. Allyson MacLean

Assistant Professor, University of Ottawa

Allyson MacLean has recently joined the University of Ottawa as an Assistant Professor where her research is focused on a study of the molecular interactions that occur between plants and microbes within the context of both beneficial and pathogenic associations. Allyson earned her PhD from McMaster University under the mentorship of Turlough Finan for her research into the nitrogen-fixing legume symbiont *Sinorhizobium meliloti*. As a recipient of a Marie Curie International post-doctoral fellowship, Allyson joined the lab of Saskia Hogenhout at the John Innes Centre in Norwich, England, to examine the role of effector proteins in the plant pathogen phytoplasma, identifying a novel bacterial protein that hijacks floral development in infected plants. Intrigued by the idea of investigating the role of microbial effector proteins in a beneficial symbiosis, Allyson next joined the lab of Maria Harrison at the Boyce Thompson Institute for Plant Research as a PDF prior to accepting the opportunity to lead her own lab at uOttawa.



The MacLean lab presently is engaged in research relevant to understanding how plant immunity is suppressed during mycorrhizal symbiosis, and characterizing the role of fungal proteins in mediating root colonization. Allyson is also excited to start a new research program to identify both microbial and host proteins critical towards the establishment of clubroot disease in canola, in collaboration with Chris Todd and colleagues at the University of Saskatchewan.

Dr. Shawkat Ali

Agriculture & Agri-Food Canada, Kentville Research & Development Centre



Shawkat joined Agriculture & Agri-Food Canada (AAFC) as a Research Scientist recently. Dr. Ali completed his Ph. D at the University of British Columbia in 2011 in Molecular Plant Pathology Lab of Dr. Guus Bakkeren, where he worked on plant-microbe interactions, particularly on *Ustilago hordei* avirulence genes. After that Dr. Ali worked as an NSERC visiting research scientist and FQRNT post-doctoral fellow in the laboratories of Drs. Peter Moffett (University of Sherbrooke, Quebec) and Guy Belair (Agriculture and Agri-Food Canada). Dr. Ali did another post-doctoral fellowship at King Abdullah University of Science and Technology, Saudi Arabia focusing on abiotic and biotic stress tolerance in plants.

Shawkat Lab is focusing his research program on large and small fruit diseases in Canada particularly in Atlantic regions. At AAFC his Lab is interested to understand how pathogens are overcoming plant defence and causes disease. Using molecular biology and molecular genetic approach his Lab is working on different aspects to reduce the losses from disease caused by pathogens. His group is also working on fungal endophytes to control plant diseases and to improve plant health that will result in a clean, environment-friendly and sustainable alternative to chemical pesticides. He is also interested in using small RNA to control virus infection in the plant.



CSPB/SCBV 2020

Virtual Meeting Real Biology

Sat, Nov 7, 2020 from 12:00 to 18:00 EST

2020 Virtual Meeting Program

Saturday, November 7, 12:00-16:30 EST

Organizing Committee: Organizing Committee: D. Goring (U Toronto) Chair, D. Bird (Mount Royal U), J. Mathur (U Guelph), J. Lee (Concordia U), A. Mott (UTSc), Q.-L. Dang (Lakehead U), P. Carella (U Cambridge/Sainsbury Laboratory), T. Quilichini (NRC Saskatoon), V. Velasco (UTM), I. Major (Michigan State U), B. O'Leary (U Western Australia)

Registration deadline: Monday October 26, 2020
<https://event.fourwaves.com/cspb-scbv/>

Program

12:00 - 14:00 Plenary Session

12:00 **Prof. Dr. Dolf Weijers** (Wageningen University, Netherlands) *"Polar expeditions - towards new cell polarity mechanisms in plants"*

12:30 **Dr. Sonia Gazzarrini** (University of Toronto) *"Spatiotemporal regulation of gene expression during ovule and seed development"*

13:00 **Dr. Danielle Way** (Western University) 2019 CD Nelson Award Winner

"How will climate change alter plant carbon fluxes?"

13:30 **Dr. Joan Laur** (University of Montreal) 2019 Carl Douglas Award Winner

"Pathway to phytotechnologies"

13:45 **Dr. Phil Carella** (University of Cambridge, UK) 2020 Carl Douglas Award Winner

"Defining the evolutionary framework that underpins host-pathogen interactions in land plants"

14:00 Virtual Coffee/Lunch Break

14:30 - 16:15 **Concurrent sessions 1-4** (eight 13-min talks/concurrent session)

16:15 Virtual Coffee Break

16:45 - 18:30 **Concurrent sessions 5-8** (eight 13-min talks/concurrent session)

Upcoming Annual Meetings

2020

CSPB/SCBV Annual General Meeting, Virtual Conference.

2021

CSPB/SCBV Annual General Meeting, University of Saskatchewan, Saskatoon

2022

Plant Biology 2022 (Joint ASPB-CSPB/SCBV), Portland Oregon.

2023

CSPB/SCBV Annual General Meeting, Dalhousie University, Halifax

2024

Plant Canada, TBD: lead society and location

Upcoming Eastern Regional Meetings

2021 Carleton University - O. Rowland, S. Hepworth

2022 University of Toronto Scarborough - S. Gazzarrini (Chair), E. Gonzales-Vigil, A. Mott

2023 Concordia University - J.S. Lee (Chair), P. Gulick, D. Dayanandan, W. Zerges

Robert Mullen as the Eastern Regional Director is co-ordinating the scheduling of these events

Western Regional Meeting 2020

The Western Regional Meeting of the CSPB/SCBV was held on February 18th and 19th in the picturesque Rocky Mountain town of Canmore, Alberta. The meeting was organized by our past Western Regional Director, David Bird (Mount Royal University). Approximately 40 registrants were in attendance, contributing 17 talks and 10 poster presentations. The meeting opened with an insightful plenary lecture by Lacey Samuels (UBC) on “The unique cell biology of cannabis glandular trichomes”. The day-2 keynote lecture was delivered by Sam Yeaman (UCalgary) entitled “The genomic basis of adaptive and plastic responses to climate in conifers”.



The graduate student presentations were a reflection of the high-quality plant biology research that goes on in Canada. Connor Hodgins (UCalgary, “Biosynthesis of off-flavour metabolites in *Pisum sativum*”) and Colleen Fortier (UAlberta, “Defining the window of phenological opportunity for spruce budworm herbivory”) were the winners of the Waygood Award for the best student oral and poster presentations, respectively. Jayde Johnson (UCalgary, “Regulatory mechanisms for an ancient chloroplast protein phosphatase in *Arabidopsis*”) was the winner of the Agrisera Student Poster Presentation Award. Mitchell Alberts (UCalgary, “Uptake and partitioning of isotopically-labelled oil sands tailings toxins in willow”) was the oral presentation runner-up.

The meeting was capped off with a caving excursion (Rat’s Nest Cave Expedition) for attendees looking for a bit of mountain adventure before heading home.

Many thanks to the organizing committee members: David Bird, Janice Cooke (UAlberta), Peter Constable (UVictoria) and Mike Deyholos (UBC Okanagan). Thanks also to the student award judges: Lacey Samuels, Janice Cooke, Glen Uhrig (UAlberta), Champa Wijekoon (AAFC Lethbridge) and Greg Moorhead (UCalgary). We are planning to hold the next Western Regional Meeting in late 2021 or early 2022, where we will once again have the opportunity to re-connect with our western CSPB/SCBV colleagues... hopefully in-person!



Student award winners: Connor Hodgins, Colleen Fortier, Mitchell Alberts and Jayde Johnson (clockwise from top left panel); with David Bird (Meeting Chair) and Doug Muench (Western Regional Director)

Doug Muench
CSPB/SCBV Western Regional Director



Left: Caving Group
Right: Plenary Speaker Lacey Samuels
Photos Courtesy of Hao Luu

CSPB 2020 Virtual Annual Business Meeting

The first virtual CSPB-SCBV Annual Business meeting was held in August with 44 members attending online. After receiving the Director's reports, highlights of the meeting included the official announcements of the 2020 Awards. Anja Geitmann (McGill) was recognized for her outstanding contributions to science, the society, and the community with the Mary E Spencer Award. Mark Belmonte (U Manitoba) was awarded the CD Nelson Award, in recognition of his significant contributions in seed biology and disease resistance in Canola. The Carl Douglas Prize was awarded to Philip Carella (University of Cambridge), recognizing his highly original work in host-microbe interactions and his extensive outreach initiatives. The Ragai Ibrahim Award for Best Student Paper was awarded to Mina Ghahremani (Queen's U) and an honourable mention to Sam Livingston (UBC). {More fulsome citations for these awards can be found in this edition of the newsletter}.

A motion to withdraw from the Global Plant Council (GPC) as a member was made and a fulsome discussion followed. As part of the rationale for withdrawing, Daphne Goring, President, explained that the membership fees to maintain a single society membership in the GPC was a significant cost, both in membership fees and for travel expenses to send a delegate to the GPC business meetings. Further, that the CSPB is a member of Plant Canada, an umbrella of seven Plant Science Societies, and through Plant Canada would maintain a membership



in the GPC. There are no other single-society members in the GPC from Canada.

With the postponement of the 2020 CSPB Annual Meeting in Saskatoon, a Virtual meeting is being planned for Saturday November 7th, from 12-6 pm (EST). Future meetings will be the annual meeting of 2021 to be held in Saskatoon, and the 2022 Joint CSPB/ASPB meeting in Portland, OR.

New officers elected included David Bird (Mount Royal U) as Secretary, and Doug Muench (U Calgary) as the Western Regional Director. Ryan Eng is leaving the post of Student/Post-Doctoral Representative and sincerely thanked for his enthusiasm and continuous efforts to organize many workshops for students and post-doctoral fellows.

Looking forward to "seeing" you all at the 2020 Virtual Meeting in November!

David Bird
CSPB/SCBV Secretary



Photo Credit: Lauren Erland

2019 Plant Canada Meeting CSPB/SCBV Award Winners

Prepared by Robin Cameron

CSPB/SCBV Oral Presentation Winners

1. Plant Canada Oral Presentation Award

Laryssa Halat, University of British Columbia

Make or break? Microtubule growth and shrinkage are controlled by dynamic turnover of plus-end proteins

2. CSPB Presidents Oral Presentation Award

Ellie Goud, Cornell University

Integrated metabolic strategy: a framework for predicting the evolution of carbon-water tradeoffs within plant clades

Honorable Mentions

1. Kiran Preet Padda, University of British Columbia

Endophytic bacteria: nitrogen-source for lodgepole pine trees on disturbed sites?

2. Mark Minow, University of Guelph

Can phloem derived small RNA modify gene regulation in shoot stem cells?

3. Stefan Schuetz, University of Toronto

Investigating the basis of strigolactone perception by HYPOSENSITIVE TO LIGHT/KARRIKIN INSENSITIVE 2.

4. Hyun Kyung Lee, University of Toronto

A role for Receptor Kinases in regulating compatible pollen responses in the *Brassicaceae* stigma.

CSPB/SCBV Poster Presentation Winners

Two Winners tied for CSPB/SCBV Presidents Poster Presentation Award

1. Nilanth Yogadasan, University of Waterloo

Understanding the regulatory role of *rbcl* RNA S1-binding domain (RLSB) protein in the single-cell C4 species *Bienertia sinuspersici*

2. Remi Maglione, UQAM

Strike against *Pseudomonas syringae*: rye cover crop promotes a shift in squash phyllosphere bacterial abundance and plant gene expression.

Honorable mentions

1. Stuart Macgregor, University of Toronto

Investigating the role of secretion in the *Arabidopsis thaliana* compatible pollen response pathway.

2. Nicole Unterlander, University of Guelph

Biochemical evidence for flavonol α -rhamnosidase activity in plants.

3. Bryden O'Gallagher, Queen's University

Exploring the role of the purple acid phosphatase AtPAP17 in *Arabidopsis* phosphate and ROS metabolism.



Dr. Peter Pauls with Plant Canada Oral Presentation Award Winner Laryssa Halat.



Dr. Peter Pauls with CSPB President's Oral Presentation Award Winner Ellie Gould.

CSPB/SCBV Oral Presentation Judging

49 Students presented in 21 concurrent oral sessions

21 Judges: Adam Mott, Bahram Samanfar, Bill Plaxton, Dion Durnford, Eiji Nambara, Eliana Gonzales-Vigil, Jaideep Mathur, Jingpu Song, Joe Colasanti, Kathi Hudak, Line Lapointe, Liping Wang, Mark Bernards, Mehran Dastmalchi, Mina Ghahremani, Mukund Shukla, Olivia Wilkins, Scott Farrow, Shelley Hepworth, Wayne Snedden

CSPB/SCBV Poster Presentation Judging

47 Students presented in 2 poster presentation sessions

18 Judges: Dilukshi Fernando, Annette Nassuth, Owen Rowland, Champa Wijekoon, Jake Stout, David Chiasson, Lauren Erland, Devang Mehta, Philippe V. Jutras, Marina Cvetkovska, Barbara Hawkins, Mina Kaviani, Raju Soolanayakanahally, Robin Cameron, Heather McFarlane, Sophia Stone, Sylvie Renault, Peter Constabel



Dr. Peter Pauls with CSPB President's Oral Presentation Award Winner Ellie Gould.

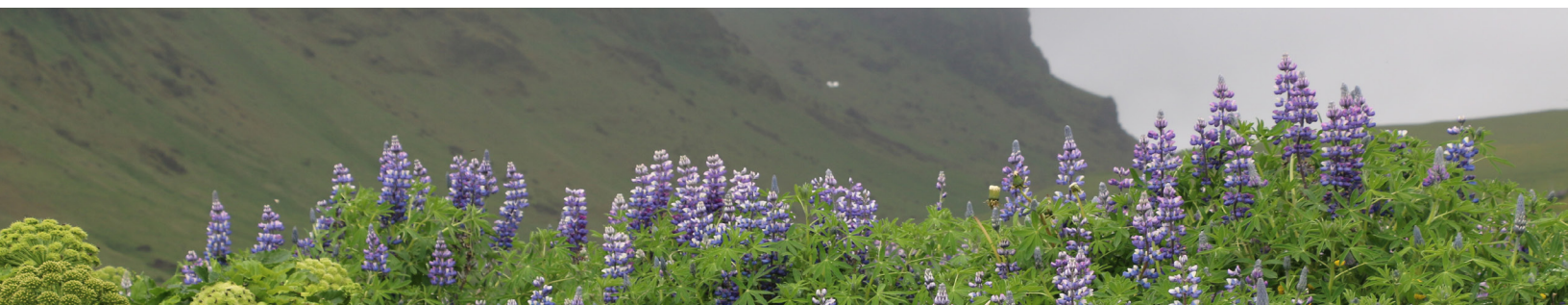


Photo Credit: Susanne Kohalmi

This is your opportunity

The Canadian Society of Plant Biologists is seeking several candidates to serve on its Executive Committee.

In addition, the society is looking for motivated individuals to serve on several committees. Most of these committees recognize excellence in plant biology through awards such as The Society Medal and the C.D. Nelson Award.

The Canadian Society of Plant Biologists invites those interested in serving as member on one of its committees to please contact Jean-Benoit Charron, Senior Director (jean-benoit.charron@mcgill.ca)

Vice President
Treasurer
Eastern Regional Director
Senior Director
Science Policy Director
Education Director

Ann Oaks Scholarship Committee: 2 open positions
C.D. Nelson Award Committee: 1 open position
Communications Committee: 1 open position
David J. Gifford Tree Biology Award Committee: 1 open position
Education Committee: 3 open positions
Gleb Krotkov Award Committee: 1 open position
Nominating Committee: 2 open positions
Ragai Ibrahim Award Committee: 1 open position
Carl Douglas Prize committee : 1 open position
Mary Spencer Award committee: 1 open position

Postdoc Feature

Prepared by Liz Brauer

Valentin Joly



Dr. Valentin Joly is a postdoctoral fellow working with Dr. Yannick Jacob at Yale University. While he was still finishing his B.Sc. in life sciences at Pierre & Marie Curie University in France, he moved to Canada for a short-term exchange program... and never came back! In 2013, he joined Dr. Daniel P. Matton's

laboratory at Université de Montréal with a Ph.D. project aiming at deciphering the molecular causes of reproductive isolation in wild potatoes. Using a dual approach combining RNA sequencing and proteomics, he analyzed gene expression in reproductive tissues of *Solanum chacoense* and re-annotated the genome with 7000 new genes. He then identified candidate genes potentially involved in species-specific pollen-pistil interactions, in particular cysteine-rich proteins (CRPs). He developed a bioinformatic sequence search tool, KAPPA, dedicated to the detection and clustering of this peculiar category of rapidly diverging proteins. In 2016, he was part of the ten Canadian students selected for the Summer Program of the Japan Society for the Promotion of Science. This allowed him to join Dr. Testuya Higashiyama's lab at Nagoya University, where he developed microfluidic devices tailored for pollen tube guidance assays in *Solanum*, allowing to test candidate proteins. Right after receiving his Ph.D. degree in August 2019, he joined the Jacob Lab at Yale with an FRQNT postdoctoral fellowship. His new project aims at optimizing the CRISPR/Cas9 technology and create large chromosomal deletions within the *Arabidopsis* genome. The goal is not only to take a step further towards the generation of minimal plant genomes but also to reveal potential hidden functions of repetitive DNA. More information can be found on his website (<https://vjoly.net>).

Solmaz Irani

Solmaz Irani is a postdoctoral fellow working with Dr. Elizabeth Weretilnyk at McMaster University. Her main research interest is to understand plant adaptation mechanisms to unfavourable environmental conditions, which will help to improve crop production under increasingly variable climatic conditions.



She graduated with a Ph.D. degree from Department of Biology at the University of Saskatchewan in September 2016, where she used a combination of molecular, physiological and biochemical approaches to study ureide compounds metabolism in response to abiotic stress in *Arabidopsis*. After her PhD, she did about a year of research in University of Saskatchewan on clubroot disease that forms galls in the roots of canola. At McMaster University, her focus is on *Eutrema salsugineum* which is an extremophile plant and a model system for stress-tolerance research in plants. Her goal is to understand the physiological and molecular mechanisms underlying the tolerance of Yukon ecotype of *Eutrema* to low phosphate availability. Beyond science, Solmaz is a regular volunteer in "Plant Molecular Biology" workshops which are hosted by Dr. Weretilnyk's lab for high school students. Solmaz has been one of the McCall MacBain postdoctoral fellows since Jan 2020. The program is a hands-on scholarship on teaching and learning by training postdocs with evidence-based teaching methods. Through the program, Solmaz has been paired with Teaching Stream faculty members in the Department of Biology at McMaster University to co-lead a project to explore the long-term impacts of STEM Engagement workshops on high-school students and their teachers.

Postdoc Feature

Wenlu Bi



Wenlu Bi has been a postdoctoral fellow for the past three years at the Gosling Research Institute for Plant Preservation (GRIPP) at the University of Guelph. For her PhD, Wenlu already specialized in plant cryopreservation and cryotherapy of grapevine with Dr. Qiaochun Wang at Northwest A&F University in Yangling, China, in 2017. She created technique to preserve plant germplasm resources and simultaneously produce virus-free materials in *Vitis* plants. Wenlu works as a postdoctoral fellow with Dr. Saxena on establishing shoot-tip cryopreservation protocols for economically important crops such as hazelnut and chestnut. She also develops conservation strategies for several threatened and endangered plant species, including Hill's thistle, Mingan thistle and Yukon Draba, which are endemic to Canada. Her primary interest is in protecting and recovering the wild plant species in their natural habitats in Canada. She helps to mentor and support graduate students in developing their experiments.

Know a great Postdoc who deserves recognition? Please send features to Susanne Kohalmi for feature in future Bulletins!

Narendra Singh Yadav



Narendra Singh Yadav is currently a postdoctoral fellow working with Prof. Igor Kovalchuk at the University of Lethbridge. His current research project explores the effects of multigenerational stress exposure in plants. The stressed lineages are studied for stress resilience via analyzing

the stress phenotype as well as genetic (WGS: Whole genome-sequencing) and epigenetic (WGBS: whole-genome bisulfite sequencing) variation as compared to their parallel and parental control. By completing this project, he will determine if plants are able to transfer stress modifications to their progeny, and if stress-induced microevolution at genomic and epigenomic level occurs. Before coming to Canada, he worked with Profs. Simon Barak and Gideon Grafi as a postdoctoral fellow at the Jacob Blaustein Institute for Desert Research at Ben-Gurion University of the Negev, Israel (2013 - 2018). In Israel, he worked in the field of plant epigenetics to decipher its role in seed dormancy and abiotic stress tolerance in *Arabidopsis* and in regulating transposable elements, particularly during stress-induced dedifferentiation. He received his Ph.D. (2013) in Plant Biotechnology from the CSIR-Central Salt and Marine Chemicals Research Institute in Gujarat, India. During his Ph.D., he carried out research in the molecular mechanisms of salinity tolerance in extreme halophyte *Salicornia brachiata*. His Ph.D. work received international recognition and he was interviewed by the prestigious science magazine "Scientific American". Over his career, he has published more than 20 articles in reputed journals and reviewed more than 50 manuscripts. Currently, he is serving as a guest editor for two special issues. Apart from research, he loves swimming which helps him to cope with routine life stress.



large flowered wintergreen photo credit: Lauren Erland

Award Announcements

Prepared by: Daphne Goring, University of Toronto

Mary E. Spencer Award Dr. Anja Geitmann McGill University



Dr. Anja Geitmann as the first awardee of the Mary E. Spencer Award fulfills all the criteria for this award: outstanding research in the field of plant biology and active public service engagement in the plant biology community by a mid-career researcher. Dr. Geitmann has an outstanding research career, and currently

holds a CRC Tier 1 in Biomechanics of Plant Development. She has and continues to publish high impact papers and is regularly invited to give talks. Particularly impressive is her capacity to draw from other fields such as finite element modelling, or microfluidics to improve our comprehension of plant biology. Her success in implementing an interdisciplinary approach to studying organ morphogenesis is reflected in 131 publications with 5511 citations. She has published in top journals such as Nature Communications, Developmental Cell, PNAS, Cell Reports, Plant Cell, Plant Physiology and Plant Journal. Dr. Geitmann has an h-index of 45, demonstrating the significant impact of her research. She has secured many grants over the years, and in particular many equipment grants, including a large CFI Innovation Fund grant of 23M\$ to set up a plant phenotyping platform as PI in 2017.

Dr. Geitmann is very active in the scientific community. She has been involved with CSPB for many years, holding different positions in the executive committee, including the presidency. As president of CSPB, she initiated the change in name and logo of the Society, something that has been discussed over the years but never put in place. She was also actively involved in the organization of three joint meetings with ASPB, and one with BSA. As an active member of the Microscopical Society of Canada, she also organized meetings in this field of research, including some joint meetings with American societies. Her involvement in the scientific organizations at all levels is simply astonishing! She is presently serving as president of the International Association of Plant Sexual Reproduction Research. Dr. Geitmann has also put much effort to promote the teaching activities within our society, and to promote plant knowledge and awareness in the general public. She has been an exemplary role model in the plant biology field particularly for early career women researchers who strive to become excellent researchers and make significant contributions to the community. The CSPB/SCBV is proud to honour Dr. Anja Geitmann with the inaugural Mary E. Spencer Award for her outstanding plant biology research contributions and active public service engagement in the plant biology community.

C.D. Nelson Award Dr. Mark Belmonte University of Manitoba

As an independent researcher, Dr. Mark Belmonte has been highly successful in making outstanding research contributions to two different fields: seed development and plant-fungal interactions. Since joining the University of Manitoba as a faculty member in 2010, Dr. Mark Belmonte has developed a well-funded research program supported by Agriculture and Agri-Food Canada, the Canola Council of Canada, CFI, Mitacs, NSERC, and his own province and NSERC, and his own province and university. A sustained and ambitious program of research is evident in over 40 peer-reviewed articles, many in high impact journals, in addition to reviews and book chapters. Belmonte lab members have worked to elucidate cellular and molecular interactions in seed development, and in harmful plant-fungal interactions in key Canadian crop plants, notably Canola. From this research has come the development of innovative crop protection methods with the potential to reduce or replace the use of potentially harmful broad-spectrum fungicides, with two patents file in 2016 and 2019. Dr. Belmonte's expertise has been recognized by many invitations to speak at regional, national, and international meetings and institutions, and through interviews and media profiles. In the Belmonte laboratory, over 45 undergraduate and graduate students and a dozen postdoctoral fellows, research associates and technicians have received high quality training in classic and contemporary plant biology methods including laser microdissection to track patterns of gene expression in specific plant cell types, and the use of RNA interference to modulate plant-fungal interactions. This quality training is evident in the awards and funding granted to his students, as well as in the multiple institutional awards made to Dr. Belmonte in the last five years for mentorship, outreach, scholarship, research and service. The CSPB/SCBV is delighted to honour Dr. Mark Belmonte as the recipient of the 2020 C.D. Nelson Award.



Carl Douglas Prize Dr. Philip Carella University of Cambridge/ Sainsbury Laboratory

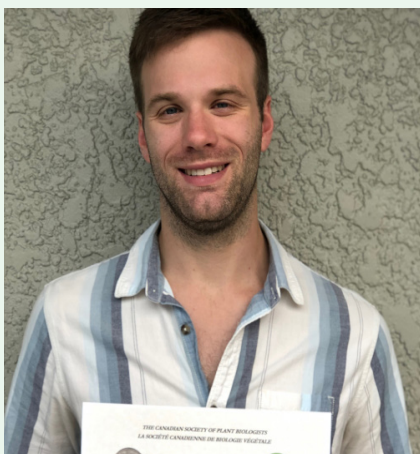
Since 2016, Dr. Philip Carella has been an postdoctoral researcher in Dr. Sebastian Schornack's group at the University of Cambridge/ Sainsbury Laboratory where he has made outstanding research contributions to the field of host-microbe interactions. His highly original research includes the development of a novel host-microbial pathosystem between the liverwort and oomycete pathogen, *Phytophthora palmivora*, and has been recently published in PNAS and Current Biology, along with a review article in Current Opinion in Plant Biology. Dr. Carella has also made impressive leadership contributions to the plant biology community where he currently serves as an Assistant Feature Editor for The Plant Cell, is a Plantae Fellow (making contributions to the online Plantae community), and maintains a science blog (ScoopIt! Blog). Dr. Carella has been involved in diverse community outreach activities, including Let's Talk Science. The CSPB/SCBV is very pleased to award the Carl Douglas Prize to Dr. Philip Carella in recognition of his impressive research and leadership contributions during his postdoctoral fellowship.

Ragai Ibrahim Award for Best Student Paper Winner: Mina Ghahremani, Queen's University

Dr. Mina Ghahremani received her PhD from the Department of Biology at Queen's University (Dr. William Plaxton's group). She is the first authors of a manuscript entitled: "A glycoform of the purple acid phosphatase AtPAP26 co-purifies with a mannose-binding lectin (AtGAL1) secreted by phosphate starved *Arabidopsis*" published in 2019 in *Plant Cell Environment*. In this manuscript, Mina used mass spectrometry and functional genomics to characterize secreted isoforms of Purple acid phosphatases (PAPs) in inorganic phosphate (Pi) metabolism. Mina's found that secreted PAP glycoforms, lectins, and phosphotyrosylated proteins have a role in plant Pi starvation responses. Understanding plant Pi uptake is essential to reduce the use of phosphate fertilizers, which can have negative environmental consequences.



Ragai Ibrahim Award for Best Student Paper Honourable Mention: Samuel Livingston, University of British Columbia



A PhD Candidate in the Botany Department at UBC (Dr. Lacey Samuels' group), Samuel Livingston was the co-first author of the manuscript "Cannabis glandular trichomes alter morphology and metabolite content during flower maturation" published in the *Plant Journal* in 2019. This paper focuses on understanding the developmental origins of trichome types in *Cannabis* and how this affects their relative concentration of medically important compounds. Using quantitative image analysis approaches that he developed, Sam discovered that the majority of sessile trichomes develop into stalked trichomes on the cannabis flowers. Uncovering the unique properties of these specialized trichomes will provide opportunities for molecular breeding and targeted engineering of this medically important plant.



CSPB-SCBV Call for Nominations

As every year we are asking for your nominations for CSPB-SCBV awards. The recipients will be awarded in the respective categories during the CSPB-SCBV Annual General Meeting in the coming year. To read more about each award and previous recipients, please go to <http://www.cspb-scbv.ca/awards.shtml> and read the CSPB-SCBV By-Laws (<http://www.cspb-scbv.ca/about.shtml>).

The annual deadline for all nomination/application files is FEBRUARY 1, 2021. Please see the CSPB-SCBV By-Laws (About CSPB) for full details and instructions.

Each year take this opportunity to recognize a colleague, mentor, peer, or student for their achievements and contributions to plant sciences in the following categories:

The C.D. NELSON AWARD IN PLANT BIOLOGY: This award shall be given for outstanding research contributions to plant biology. Special consideration will be given to originality and independence of thought. Nominees shall have been in an independent, full-time research position for no more than 10 years, although career breaks will be taken into account when applicants are nearing the end of this eligibility period (e.g. maternity or parental leave, caregiver's responsibilities, illness, etc.). Nominees need not be Canadian citizens or members of the Society but must be engaged in a research program in Canada at the time of the nomination.

For questions and nomination submissions, contact the chair of the committee: Darrell Desveaux darrell.desveaux@utoronto.ca

The RAGAI IBRAHIM AWARD: The purpose of the award is to recognize excellence in publication by graduate students. A peer reviewed paper either in print or on-line will be nominated by the supervisor of the student, and will be evaluated on the impact or potential impact that the work will have on plant biology.

For questions and nomination submissions, contact the chair of the committee: Christopher Todd chris.todd@usask.ca

The CARL DOUGLAS PRIZE: The Prize shall be awarded for outstanding contributions to plant biology by a postdoctoral fellow, based on initiative and originality of the research, productivity of the individual, and leadership during their postdoctoral fellowship. A postdoctoral fellow is an individual who has completed their PhD and is engaged in full-time research under the supervision of a mentor. Applicants shall have obtained their PhD no

more than 4 years (i.e., 48 months) prior to the date of the submission of the application, although career breaks will be taken into account when applicants are nearing the end of this eligibility period (e.g. maternity or parental leave, caregiver's responsibilities, illness, etc.). Applicants need not be Canadian citizens or engaged in a research program in Canada at the time of the nomination or during their postdoctoral fellowship. Preference will be given to applicants who are current members of the Society and have previously participated as a member of the Society. For questions and application submissions, contact the chair of the committee: Eliana Gonzalez-Vigil e.gonzalezvigil@utoronto.ca

GOLD MEDAL AWARD: The Medal shall be awarded for outstanding career research and leadership contributions, primarily in Canada.

For questions and nomination submissions, contact the chair of the committee: Sophia Stone sophia.stone@dal.ca

THE DAVID J. GIFFORD AWARD IN TREE BIOLOGY:

The Award shall be given for outstanding research contributions in tree biology, primarily in Canada. Special consideration will be given to originality and independence of thought. Nominees need not be Canadian citizens or members of the Society but must be engaged in a research program in Canada at the time of the nomination, and shall have been in an independent, full-time research position for more than 15 years. The award includes a cash prize; the value of the prize is determined by the Board of Directors.

For questions and nomination submissions, contact the chair of the committee: Uwe Hacke uwe.hacke@ualberta.ca

"Please note that the **GLEB KROTKOV AWARD** is only awarded every three years and the **MARY E. SPENCER AWARD** only every two years (please see CSPB-SCBV By-Laws About CSPB). Both awards can be awarded again in 2022."

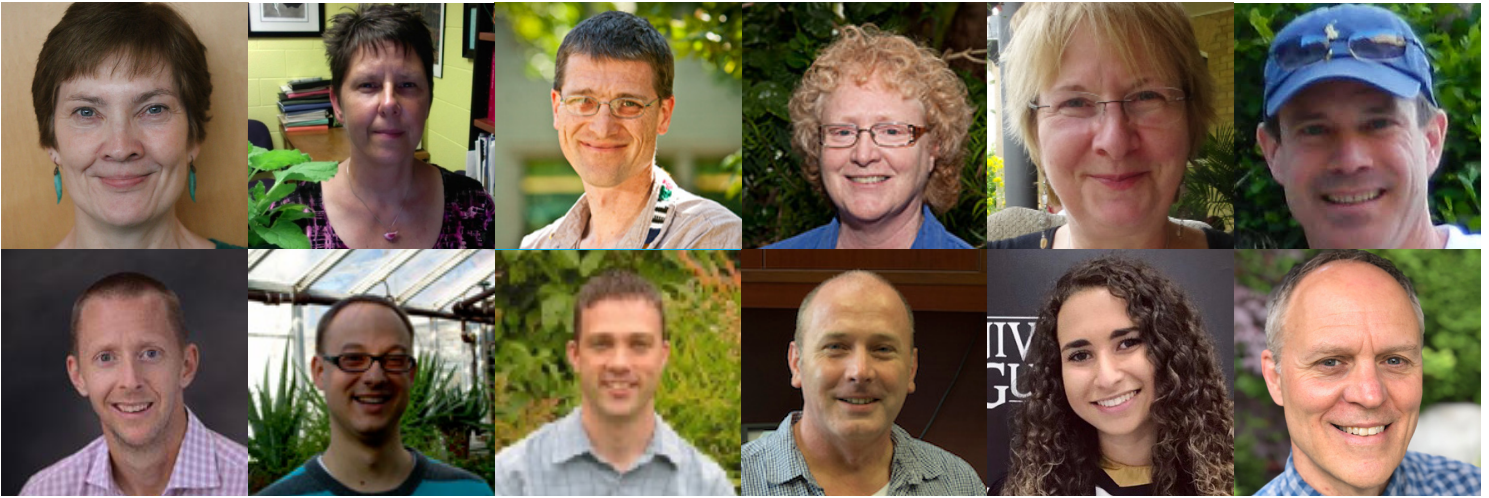
Please feel free to contact me with any questions.

Best wishes,

Susanne Kohalmi
CSPB/SCBV Communications Director and Bulletin Editor
communication@cspb-scbv.ca

CSPB Inside

CSPB / SCBV Executive Committee Membership 2020/2021



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Contributors

The Bulletin is the official newsletter of the Canadian Society of Plant Biologists/Société Canadienne de Biologie Végétale (CSPB/SCBV).

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Editorial deadline for Bulletin 30 is April 30, 2021

Please submit your contributions, comments, photos, suggestions for featured papers, new faculty bios and announcements before the editorial deadline to:

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