



May 01, 2021

CSC President's Report (2020 –2021)

Greetings. It has been a pleasure and a privilege to serve as President of the Canadian Society for Chemistry. It would be an understatement to say that this year has been particularly taxing. Nonetheless, due to the dedicated efforts of members of our chemistry community, the CSC Board of Directors, the CIC Board of Directors, and the CIC National Team, we are weathering the storm and the CSC finds itself in a strong, confident position moving forward. With the help of the entire board and members of the CIC National Team, a short summary of the activities that underpin the CSC is presented for your information. What is not truly captured is the extent of the work behind the scenes and the hours of virtual meetings between board members, the membership, the National Team, and representatives of the various interest groups.

Portfolios and Activities

Accreditation. CSC accreditation to high quality, recognized programs provide comparator analyses required by quality assurance and helps attract students to these institutions. The CSC's accreditation program was particularly hit by the pandemic because on-site assessments were no longer possible. The Accreditation Committee adapted to the pandemic by facilitating virtual accreditation site visits. Departments were provided the alternative option to defer their accreditation by a year with a concomitant extension in their existing program accreditation. A conciliation was that laboratory sessions could be conducted online or modified as departments deemed appropriate. For 2021–2022, departments will be encouraged to return to in-person laboratory courses if these can be conducted safely.

Awards and Recognition. For the CSC, CIC and Canadian Green Chemistry and Engineering Network we have 31 awards (20 CSC, 9 CIC, 2 CGCEN). We received 135 nominations and from these, 27 award winners were selected. Nine awards received fewer than 3 nominees and four (Keith Laidler Award, the Organization Canadian Green Chemistry and Engineering Award, Beaumier Award for high school and collège d'enseignement général et professionnel (Cegep) Chemistry Teachers, and Catalysis Award) were not considered for the 2021 awards. There were 39 nominations of women (28%) but 12 awards had no female nomination. Of the 17 awards that had at least one woman nominated, 8 were awarded to women. Given the cancellation of CCCE 2020, the 2020 and 2021 CIC/CSC award winners will be honoured at the IUPAC | CCCE 2021 conference this year. Plans are also in place for some virtual award lectures. The CSC/CIC awards program gratefully acknowledges support of its financial sponsors, which includes a recent endowment by the Bader Philanthropies Board for the Alfred Bader Award. Two new awards focusing on Equity, Diversity, and Inclusion (sponsored by Gilead Alberta ULC) will be offered beginning this year. As these are new awards, the nomination deadline will be September 1, 2021. One award is intended for nominees in their independent careers (holding a professional appointment as an independent researcher in academia, government, or industry in Canada at the time of nomination). The other award is intended for nominees who have not yet begun their independent careers (undergraduate student, graduate student, or postdoctoral researcher in Canada at the time of the nomination). An item of note: The Board voted to remove the requirement of three or more nominees for an award to be sent out for adjudication.

Conferences. The 48th World Chemistry Congress along with the 104th Canadian Chemistry Conference and Exhibition (IUPAC | CCCE 2021) originally scheduled to be held in Montreal (August 13 – 20, 2021) will be a fully virtual event. The conference will be a mix of synchronous and asynchronous programming to create the stimulating environment our community is accustomed to. The organizers, under the leadership of Neil Burford, Bruce Lennox, Kim Baines, and Jeremy Melanson, amongst others, in collaboration with the CIC National Team, are thanked for their tireless efforts to successfully pivot from an in-person to a fully virtual event. Looking forward, the planning for CCCE 2022 under the leadership of Roland Roesler, Belinda Heyne and Paul Hayes, is also progressing well and we are looking forward to a successful in-person conference in Calgary. Pacifichem 2021 (CSC representatives: Laurel Schafer and Tom Baker) will be held as a hybrid event in December 2021, given that vaccination rates vary from country to country. The

CSC is also actively involved in core planning of the Atlantic Basic Conference on Chemistry (ABC Chem), to be held in Marrakech in December 2022, with Alison Thompson as the CSC representative on the Technical Programming committee.

In the absence of in-person conferences, the CSC shifted to developing the CIC VIRTUAL portfolio. These virtual presentations amplified the work that our chemical sciences community is undertaking to tackle global issues. While we remain unable to meet physically, this initiative enabled the Canadian community to stay connected, while stimulating learning, and celebrating each other's work. Within CIC VIRTUAL there were two streams: CIC Talks spearheaded by the CIC National Team; and the Virtual Seminar Series led by champions within their respective subject divisions. The latter included contributions from the CIC Environment Division; the CSC Inorganic Division; the CIC Macromolecular Science and Engineering Division; the CSC Physical, Theoretical, and Computation Chemistry Division. This platform has also been showcasing talks of recent CSC award winners that were unable to present at the cancelled CCCE 2020.

Since the start of the CIC's adventure into CIC VIRTUAL in April of 2020, 11 CIC webinars have been presented with topics including chemical education, EDI, and the future of the scientific laboratory, attracting a diverse set of speakers from across Canada. 30 Virtual Seminar Series Webinars have been hosted with over 50 speakers from across the globe. 3600+ registrants have been engaged from over 65 countries. While there are too many people to acknowledge here, a special shout out goes to Marcus Drover (Windsor) and Saurabh Chitnis (Dal) who take credit for initiating the Global Inorganic Discussion Weekend, which became the inspiration for CIC VIRTUAL with the very capable assistance of Keith Lapierre (National Team). The success of CIC VIRTUAL is traceable to our dedicated community members who volunteered their time and effort.

Inclusion, Diversity, Equity. The CSC Board of Directors approved the creation of the terms of reference for a new director role on the board (Director of Equity, Diversity, and Inclusion) and of the board committee "Working for Inclusion, Diversity, and Equity (WIDE)". A symposium entitled "Challenges and Opportunities for Equity, Diversity and Inclusion in Chemistry - A Global Perspective" will be held at the upcoming IUPAC | CCCE 2021, organized by members of WIDE. Starting this year, WIDE will become the focal point for the call and adjudication of EDI-related symposia for future CCCEs. The Self-Identification Policy, together with two Self-Identification Questionnaires, which were approved by the CSC Board of Directors in 2019, were revised for implementation at the IUPAC | CCCE 2021 meeting. WIDE has also established a social media presence through Twitter (@CSC_WIDE).

Industry Liaison. Adequate industrial engagement is a continuing challenge. To encourage more participation from industry, a CIC Industry Engagement Committee spun out the Industry Conference Committee. Industry is participating in the IUPAC | CCCE 2021 program. To assist in this, the CIC National Team now includes a CIC Marketing and Partnership Coordinator. The board is considering introducing programs that would enhance recognition of industry-based membership and activities that are directly relevant to our industry membership. Attracting industrial interaction into the CSC continues to be an important activity as the value to this sector is not obvious; nor are the groups within the industrial sector for which the CSC is relevant.

Local Sections. The CIC National Team representative and Local Section (LS) Directors held virtual meetings with several local sections individually to engage with them. Discussions centered on LS activities, challenges and opportunities that can be pursued. Several local sections held virtual events including presentations, networking events and an annual general meeting. Discussions of multiple local sections holding joint events and conference involvements took place. Challenges remain concerning member engagement in their local section; communication with members; and improving the understanding of the value proposition provided by the local section platform.

Student Affairs. The student affairs portfolio supports the activities of Student Chapters, including educational, networking, and professional development activities, as well as Student Chapter Awards. In addition, the CSC Director of Student Affairs participates in the presentation of the CCCE Conference student awards. With the cancellation of CCCE 2020, many of these activities were put on hold this past year. In the coming year we plan to expand our previous efforts to work with the Student Chapters by engaging student leaders through virtual events at IUPAC | CCCE 2021 and throughout the coming academic year.

Subject Divisions. Subject Divisions collectively remain a strong grass-roots element of the CSC, and the CIC more broadly. They reflect the communities of the CSC membership. Over the past year, the interaction between the CIC National Team and the Subject Division chairs was reinforced by the National Team aiding in the endowment of awards and the management of financial accounts, the latter being necessary with respect to compliance as a non-profit

institution. Moving forward, outstanding issues that need addressing are the methods used for mass communication with Subject Division members, and policies and procedures concerning sponsorship. The various task forces assembled to address these issues are committed to transparent communication and to the benefit of both the CSC and the Subject Divisions.

Nominations. During the past year, the CSC Board created three new directorships: A Director of Equity, Diversity, and Inclusion (EDI) and two Directors-at-Large, the latter to be filled by early career chemists within 10 years of graduation. The Board also decided not to fill the Director of Professional Status position as this role has become redundant with the existence of the Federation of Canadian Professional Chemists (FCPC). Importantly, the Board created a Nominating Committee, chaired by the Past-President, and comprised seven members, charged with developing robust protocols for attracting and selecting nominees from the broadest pool of candidates possible. Five new Directors (VP, EDI, Conferences and 2 Directors-at-Large) were sought. The mechanism for selecting these new Directors was overhauled with the objective of increasing transparency, inclusion, and the diversity of the candidate pool. Input on the process was obtained from the CSC Board and the WIDE committee. A call for nominations opened late January. Review of the nominee qualifications so received allowed 40% of the nominee positions to be filled. Following this, the nominee slate was completed by inviting candidates. The board aspires to have all positions challenged by a minimum of two candidates. Attempts were made to achieve the 50-30 Challenge of the Federal Government (50% gender parity and 30% of other under-represented groups on Canadian boards). All positions had at least one female candidate and under-represented groups were well represented (> 40%). Elections are to be held at the AGM.

Membership & Finances. 2020/2021 was a very difficult year for CSC membership and finances. There was already a slight decline in membership rates at the beginning of the year, in line with year-over-year trending slowly downward. However, the cancellation of CCCE 2020 due to the COVID-19 pandemic significantly impacted not only CSC's revenue through the conference itself, but also through membership numbers. Most members renew their membership during the conference registration process, likely incentivized by the discounted registration fee for members. Without the conference, membership in CSC was 46% lower in May of 2020 than it had been in May of 2019. Throughout the rest of the year, membership saw a very slight rebound, closing around 40% lower in 2020 than 2019. The impact of the 2020 conference cancellation on membership continues to highlight the importance of providing value to CSC members beyond the conference. The organization has been working to provide membership value throughout the year with initiatives such as CIC VIRTUAL and the CIC Job Board, which launched at the end of 2020. The outlook for 2021 membership is good as it will likely rebound given that the IUPAC | CCCE conference is going ahead as a virtual event in August.

Bilingualism. Together with the CIC's National Team we have re-prioritized bilingualism to ensure that francophone members can receive more communications in French. The email membership campaign carried out by the CIC was conducted in the language selected by each member in their member profile. Additionally, all CSC calls for nominations (including board and various committee positions) have been available in both English and French. In upcoming months French CIC NEWS stories will be released, as the CIC partners with Québec Science to bring French-language coverage of chemical sciences stories.

External Relations

(1) **Commonwealth Chemistry.** This year, the CSC formally became a founding member of Commonwealth Chemistry (CC), a federation of chemical societies from nations of the Commonwealth intent on being an effective and inclusive voice for practitioners of the chemical sciences in the Commonwealth and to speak out as a single cohesive group for collective benefit. There are now 20 chemistry societies who are members of CC and the list is expected to expand. Deborah Nicoll-Griffith, Past-President of the CSC, serves on its Executive Board. The CSC is represented by the President of the CSC at the CC AGM, the first of which takes place in May 2021. All members of the CSC are eligible for free access to the Royal Society of Chemistry (RSC) by simply signing up at this link: chemistryworld.com/commonwealth-chemistry. Commonwealth Chemistry was officially launched on March 8, 2021, Commonwealth Day and International Women's Day, and the website is expected to be launched in the coming weeks. Activities of the CC during the last year included a poster competition in which three selected CSC members who are early career chemists participated. A virtual congress will take place May 16-19, 2021.

(2) **Journals.** The CSC renewed a MOU with Canadian Science Publishing (CSP) highlighting a joint commitment towards the publishing of the Canadian Journal of Chemistry (CJC). The CSC and CSP jointly pledged a commitment to

ensuring CJC attracts and publish world-class research and remains a high-caliber research publication. The CSC continued to receive financial contributions from the Royal Society of Chemistry (RSC) Publishing House when CSC members publish in the Physical Chemistry Chemical Physics (PCCP) journal. Alex Brown (Alberta) continues to serve as the CSC representative on the ownership board of *PCCP*.

(3) **American Chemical Society (ACS).** The CSC and American Chemical Society (ACS) have a shared interest in advancing the chemistry enterprise that identifies solutions to global challenges confronting humanity. Toward this end, the CSC and ACS entered into a three-year Agreement, guided by the United Nations 2030 Sustainable Development Goals (SDGs). The intent is for our two societies to collaborate in the areas of programming and produce events in areas of shared importance; to design and implement initiatives for early-career chemists that are relevant to the changing face of chemistry; and to provide value of membership by implementing initiatives that enhance that value.

(4) **NSERC Chemistry Liaison Committee (NCLC).** The NSERC Chemistry Liaison Committee, consisting of a diverse membership of academic researchers and several NSERC staff members, was created to facilitate discussions between the chemistry research community in Canada and NSERC with the purpose to further Canadian chemistry research. It provides a venue for involvement of chemists on broader NSERC matters and to create opportunities for Canadian chemists to engage in organized, strategic initiatives involving NSERC. The committee also provides input on topics which NSERC is consulting the community on and allows the community to prepare responses on these topics. Two year's ago, the CSC formally entered into an agreement with NCLC to provide a platform for the dissemination of NCLC-related information. It has since been recognized that number of CSC members having a vested interest in NSERC matters is large, comprising most of the CSC membership, and that NCLC matters are of broad interest to the CSC membership. Discussions are on-going that would lead to the creation of a director position of NCLC activities on the CSC board. This idea is gaining traction, and has the makings of a chemistry advocacy group, a topic that has been discussed by the board many times in the past.

CSC and the CIC

Organizational Structure. The CSC operates under the organizational umbrella of the Chemical Institute of Canada (CIC) and works closely with the Executive Director (ED) of the CIC and the National Team (NT) staff. The ED reports to the Chair of the CIC and is responsible for managing the NT staff. The ED and NT administer support to the three constituent Societies of the CIC, to Subject Divisions, to Local Sections, and to Student Chapters. The President of the CSC is a member of the CIC Board; the CSC Vice-President is an observer. Through this structure the CSC secures sources and resources to run the Society and advance new initiatives.

The structure and personnel of the CIC's National Team staff has changed significantly over this past year. These changes have increased the capacity of the National Team to meet the needs of the membership and develop new opportunities for revenue. The most significant change occurred with the resignation of Ian Jobe as Executive Director in August 2020. The CIC Board Chair, Paul Smith, stepped in on an interim basis as Executive Director and will likely continue in that role until a new permanent ED is hired. The ED hiring is tied to the crucial work being done by the Governance Task Force (see later in this report) to determine what the structure of the organization(s) should look like in the future. Interim ED, Paul Smith has been successfully leading the National Team towards the goals of connecting and supporting our members and community. Within the team, there have been changes to the staff roles and new positions developed. Generating new non-membership revenue opportunities is an important strategic priority to create financial sustainability for the societies. To drive this portfolio and to support existing initiatives with marketing expertise, the CIC hired a new Marketing and Partnerships Coordinator in January 2021. The awards portfolio is a crucial part of celebrating the outstanding achievements of the CSC community and, since November 2020, the team now includes an Awards and Governance Associate to support those portfolios. In addition, as of September 2020, there is now a Manager of Membership, Communications, and Marketing to lead those crucial portfolios. While there have been many changes, the team is working together extremely well and continues to stay connected even without a physical office space. This new structure of staff positions enables the National Team to work effectively to support existing CSC members with programming, engage the Canadian chemistry community, and build towards long-term organizational growth.

The Governance Task Force. As many of you will know, the structure of the CIC is nuanced, with three national scientific organizations (constituent societies) working together to share resources through a single CIC National Team. The CIC deals with finances, conferences, journals, communications, awards, member resource groups, advocacy, international relations, and other issues relevant to the societies. Each society is an independent not-for-profit

organization with its own board of directors and by-laws. The current organizational structure has been in place for 75 years, and although this structure has been valuable over the years, the complex arrangement has led to difficulties, including disconnections between financial priorities of the societies and those of the umbrella organization. Moreover, the reporting structure of the Executive Director position, the means through which constituent societies interact with National Team staff, and the fact that society presidents are also CIC board members, which can create conflicts in terms of their obligation to represent the interests of two separate organizations, is cumbersome.

To address these concerns, at the recommendation of the CSC, the CIC created a Governance Task Force, challenged with evaluating the current model and proposing alternative models in which the goals of the societies can be met. The committee was asked to review the governance structure and current agreements with regards to financial, communication, planning and control mechanisms; take into consideration the ultimate purpose of the current arrangement, namely cost sharing and enabling of joint initiatives; consult with the four society boards; address the role of the Executive Director including the reporting relationship to the Societies; propose alternative models that meet the goals of the individual societies; and finally, suggest possible mechanisms to implement proposed changes

The Governance Task Force (GTF) was convened in the summer of 2020 with eight members, three of whom are CSC members. The GTF completed a preliminary report late December which highlighted the evolution and status of the CIC governance. The GTF then focused on ideas and recommendations. A member survey was completed, and this feedback, along with comments from stakeholders, and input from the CIC, CSC, CSChE and CSCT were incorporated into a set of recommendations which were presented to the CIC Board in early May. The high-level recommendations included a single “lean” Board with numerous committees to carry out the Board functions and an alteration of the CIC Board to play more of a support role. Other elements of the recommendations centered around the Executive Director role, reconsidering the membership cost structure, thresholds of activities for Subject Divisions and Local Sections, and incorporating CSCT Members into the CSC. Foundational key requirements are to improve communication and accountability. Broad strokes of an implementation plan were also presented to the CIC Board for consideration. At the time of writing, the GTF is in its final stages of contemplation.

Closing Remarks

I wish to thank members of the CSC and CIC Boards. One is struck by the dedication and personal commitment of these people, who selflessly give their voluntary time for the sake of the broader chemistry community. A special thanks go to: Past-President, Deborah Nicoll-Griffith, who has inspired us all with her enthusiasm, business acumen and can-do attitude; Zhongxin Zhou, our Vice-President, who has been a source of wisdom and encouragement this past year; Paul Smith, CIC Chair, who took on the role of interim ED and successfully steered the CIC during a most challenging time; and the CIC National Team for their dedication, creativity, and perseverance.

We have very much to look forward to as we emerge from this difficult time in history. We will soon be returning to face-to-face meetings, physical conferences, and a general re-engaging of our society. We will do so, however, with a clarified view on the importance of networking, of tolerance, of diversity, and of each other.

Thank you for allowing me to serve as CSC President this past year, I look forward to serving as Past-President this coming year.



Steven Holdcroft, FCIC

CSC, President, 2020-2021