

Canadian Division Report 2021

Members of the Canadian Division have been involved with multiple notable activities since the 2020 ACA meeting:

A) Update from the Canadian National Committee for Crystallography:

1. The Canadian National Committee for Crystallography run three workshops each year:
 - a. In 2020 and 2021 the Canadian Chemical Crystallography Workshop ran as virtual events.
 - b. In 2020 the Canadian Materials Diffraction Workshop was cancelled, and in 2021 it ran as a virtual event.
 - c. In 2020 the Canadian Powder Diffraction Workshop ran as a virtual event, and in 2021 it is scheduled to run in-person during the Fall.

2. At the time of writing this report, it is now publicly known that the CNCC, USNCCr, and the ACA are working together on a bid to host IUCr2026 in Calgary, AB, Canada. This bid was presented at the 25th IUCr Congress and General Assembly on Aug. 16, 2021. The outcome of this bid will be known on Aug. 19, 2021.

B) Sessions co-sponsored at ACA Meeting 2021

While the Canadian Division had initially proposed to co-sponsor nine sessions for ACA2021, only one session made it to the final program:

3.2.4 Getting the First Crystal

Thursday, 8/5/2021 @ 12-3 PM EDT

Chair(s): Sarah Bowman & Janet Newman

Sponsoring SIG: Biological Macromolecules

Co-Sponsoring SIGs: Canadian, Young Scientist

C) Oral and Poster Presentations 2021

The following Canadian members gave talks at ACA2021:

1.1.1 General Interest – Dmitriy Soldatov

1.1.2 Mapping Free Energy Landscapes of Molecular Machines – Lewis Kay

2.2.3 Economics of Crystallography – Melanie Pilkington

2.1.1 Evolving Enzymes – Sarah Barwell

2.1.3 Latest software developments in cryo-EM – Ali Punjani

3.1.5 What I Learned from My First Structures – Norman Tran

1.1.3 Microcrystal Electron – Martin Seifrid

3.1.5 What I Learned from My First Structures and 4.1.2 Cool Structures – Raúl Castañeda

The exact number of posters from Canadians is unknown at the time of this report, but at least five Canadian graduate students were considered for Pauling prizes.

D) Sessions proposed for co-sponsorship at ACA Meeting 2022 (Portland)

The Canadian Division expressed interest in co-sponsoring the following sessions for 2022:

Other Developments of Machine Learning in Structural Biology

Protein motions resolved by cryo-EM

Would You Publish This?

Cool Structures

Transactions

E) Nomination for Canadian Division Chair (2-year term)

Two members have agreed to serve in the Fall election from Canadian Division chair:

Dr. Matthew (Matt) Mcleod

mjm758@cornell.edu

Post-doctoral Fellow, Thorne Lab

Cornell University, Ithaca

and

Dr. V. Nicholas Vukotic

nvukotic@uwindsor.ca

Assistant Professor

Department of Chemistry and Biochemistry, University of Windsor

F) 2021 ACA Fellows from Canada

The Canadian Division is delighted to recognize three Canadians who were inducted into the ACA Fellows in 2021:

Lynn Howell

Hanna Dabkowska

Frank Hawthorne

Prepared by:

2021 Canadian Division Chair: Louise Dawe

August 17, 2021

Canadian Division Meeting Minutes

Tuesday, July 27, 2021, 12 pm EDT

General Attendance: 12 participants at the meeting

- **Greetings from Chair and Review of Minutes from 2020**

Current Chair: Louise Dawe (2/2 terms), looking for nominations for the next 2-year term

Current Secretary: Nicole Fraser (1/2 terms)

There was special interest regarding Canadian participation at ACA and we don't have numbers to compare finitely across the years but of the 562 registered for the 2021 meeting, 26 are Canadian.

-There were some comments that registration was down from last year, by 48 however the number of abstracts for the 2021 meeting increased from the 2020 meeting. Numbers are not yet available to see if the number of Canadian abstracts increased, decreased or remained the same from the previous year.

Offer for any revisions/comments regarding minutes from 2020, majority passed with a few abstentions:

-Abstention due to absence at 2020: Lynn Howell, Michael Ferguson

-Abstention due to not in the Canadian division: Diana Tomchick

- **Update from the CNCC (workshops; IUCr2020 and IUCr 2026)**

Reminder that the CNCC enacted by-laws in 2019, and are available on their website

The 2021 workshops are regularly running this year:

-Canadian materials workshop is currently running

-Canadian chemical crystallography workshop is running remotely from August 8-11 2021

-Canadian powder diffraction workshop is running in-person in Fall 2021, London

The IUCr meeting will be a hybrid of in-person delegates with most Canadians participating remotely

-2023 Meeting will be held in Melbourne, Australia

-2026 Meeting location will be held to a vote soon, currently undetermined

- **Sessions co-sponsored at ACA Meeting 2021**

3.2.4 Getting the First Crystal

Thursday, 8/5/2021 @ 12-3 PM EDT

Chair(s): Sarah Bowman & Janet Newman

Sponsoring SIG: Biological Macromolecules

Co-Sponsoring SIGs: Canadian, Young Scientist

From last year, the Canadian division had discussed 9 sessions but this is the only session that made it into the finalized meeting schedule

- **Oral and Poster Presentations 2021**

There are several talks and posters from Canadian scientists based on their affiliations with a mix of faculty members and graduate students/post-doctoral fellows.

-The highlights from the 2021 meeting will be presented to the ACA council later in August

- **Sessions proposed for co-sponsorship at ACA Meeting 2022 (Portland)**

Please send sessions for possible co-sponsorship to ldawe@wlu.ca prior to August 5 2021 for consideration for the upcoming 2022 ACA meeting.

There a few sessions brought up:

-Diana Tomchick discussed participation in the Transactions Symposium: Contributing Factors of Our Society Battling the COVID-19 Pandemic

-There's room for all SIGs to get involved as their currently looking for suggestions for speakers

-If you're approaching potential speakers, a reminder that Transactions is published within *Structural Dynamics* so presenters are expected to write for the publication

-A participant suggested the Saskatoon group that looked at testing PPE effectiveness over lengths of time, which focuses on a materials point of view

-A participant suggested an international collaboration that is occurring that serves as a curated resource of "good" COVID structures

-Contact: Diana.Tomchick@UTSouthwestern.edu

Several SIGs are interested in Machine-Learning, and new Xtallographic Software

CLS participation has been noticeably down at recent ACA meetings, and SIG individuals are interested in getting them more involved through presentations, poster sessions etc. There is also interest to how CLS will help accommodate during the APS shutdown (beginning April 2023)

- **Deadline to submit a workshop proposal for ACA Meeting 2022**

There are five workshops occurring during the 2021 meeting

-Proposal deadline for 2022 workshops: September 1 2021 and is evaluated by the Crystallography Education Committee. Full information regarding workshop proposal information/resources can be found on their website.

- **Nomination for Canadian Division Chair (2-year term)**

Looking for nominations for the Canadian division chair, highlighted that this a 2-term position.

-Nomination committee consists of:

- Louise Dawe (current chair)
- Nicole Fraser (secretary)
- Brian Patrick (past division officer)

-A call out for nominations resulted in one name put forth: Sarah Andres, who is a current poster-co-chair. Correspondence will be initiated. Any additional nominations can be sent to Louise, ldawe@wlu.ca

- **Any other business**

Everyone is encouraged to attend the 2022 ACA meeting in Portland, a reminder to reach out to Canadian colleagues that may benefit from this conference

-There is another meeting occurring during the 2022 meeting, Microscopy & Macromolecules meeting and there are talks of joint workshops and reciprocal-registration for shared interests between both pools of constituents. Current workshops with the potential for joint-hosting are: CryoEM and MicroED.

There were comments made about the accessibility/scheduling of SIG meetings during the ACA meeting.

-Suggestions for virtual SIG meetings to prevent skipping lunches or missing other meetings

-There were comments about having the workshops separate from the conference, but surrounding the conference time, if kept virtual.

Congratulations to the announced 2021 ACA Fellows: Lynn Howell, Hanna Dabkowska, Frank Hawthorne

Meeting was motioned to end by Louise Dawe, seconded by Gerald Audette