



# Bader Symposium

By Daniel Reddy on behalf of the Queen's University International Student Chapter of the American Chemical Society

The Queen's University International Student Chapter of the American Chemical Society (Q-ACS) hosted the first-ever Bader Symposium on Monday, November 18th, 2024, at The Isabel Bader Centre for the Performing Arts to celebrate 2024 as the 100th birthday year of the late Dr. Alfred R. Bader. In addition to co-founding the Aldrich Chemical Company, which through a series of mergers became MilliporeSigma, Dr. Bader was a transformative benefactor of Chemistry, The Arts, and philanthropy worldwide (and a proud Queen's alumnus!). This free-of-charge symposium featured keynote speakers from The Arts and Chemistry, a multidisciplinary poster session, the Bader Graduate Student and Postdoctoral Scholar Lectures, and an artistic/musical exhibition. Dr. Daniel J. Bader, son of Alfred Bader and President/CEO of Bader Philanthropies, Inc, was also featured, and gave a plenary lecture through the Brockington Visitorship. The symposium included the following sessions and individuals, all of whom highlighted Dr. Bader's interests and impacts (for more information, see the articles in [Chemical & Engineering News](#), [Queen's Gazette](#), and [Queen's Journal](#) where the symposium was highlighted. The entire symposium can also be viewed on the [Q-ACS YouTube channel](#)).

### Remarks:

- Dr. Patrick Deane (Principal and Vice-Chancellor at Queen's University)
- Dr. Josephine Tsang (Executive Director of the Chemical Institute of Canada)

### The Arts Speaker Session:

- Dr. Stephanie Dickey [Professor Emerita of Art History and Former Bader Chair in Northern Baroque Art (2006-2024) at Queen's University]
- Dr. Gauvin Bailey (Professor of Art History and Bader Chair in Southern Baroque Art at Queen's University)
- Dr. Aaron Shugar (Professor of Art Conservation and Bader Chair in Art Conservation at Queen's University)
- Dr. Swen Steinberg (Adjunct Professor of History at Queen's University)

### The Chemistry Speaker Session:

- Dr. R. David Britt (Winston Ko Chair, Professor of Chemistry, and 2023 American Chemical Society Alfred Bader Awardee in Bioinorganic or Bioorganic Chemistry at the University of California – Davis)
- Dr. Rik R. Tykwinski (Professor of Chemistry and 2023 Canadian Society for Chemistry Alfred Bader Awardee at the University of Alberta)

- Dr. P. Andrew Evans (Tier 1 Canada Research Chair in Organic and Organometallic Chemistry, Professor of Chemistry, and Bader Chair in Organic Chemistry at Queen's University)

### **Bader Graduate Student and Postdoctoral Scholar Lecture Keynotes:**

- Dr. Ben Glasspoole (Head of Emerging Chemical Synthesis, MilliporeSigma)
- Madeleine Dempster (PhD Candidate in Art History and Bader Fellowship Awardee at Queen's University)

### **Bader Graduate Student Lecturer in Science:**

- Anastasia Messina (PhD Candidate in Chemistry at Queen's University)

### **Bader Graduate Student Lecturer in Engineering:**

- Manpreet Kaur (PhD Candidate in Chemical Engineering at Queen's University)

### **Bader Graduate Student Lecturer in The Arts:**

- Elyse Longair (PhD Candidate in Screen Cultures and Curatorial Studies at Queen's University)

### **Bader Postdoctoral Student Lecturer:**

- Dr. Fanwang Meng (NSERC Banting Postdoctoral Fellow in Chemistry at Queen's University)

### **Exhibition & Performance Session:**

- Dr. Suzanne van de Meerendonk: (Bader Curator of European Art at the Agnes Etherington Art Centre at Queen's University)
- Dr. Tanya Paul (Isabel and Alfred Bader Curator of European Art at the Milwaukee Art Museum)
- Katya Poplyansky: (Concertmaster of the Kingston Symphony and Cli,ord Overton Prizewinner in the 2017 Isabel Overton Bader Canadian Violin Competition)

### **Plenary Lecture (Brockington Visitorship):**

- Dr. Daniel J. Bader (President/CEO of Bader Philanthropies, Inc.)

## **About Dr. Alfred R. Bader**

On November 15th, 1941, a young student arrived on campus for the first time to begin his studies. It was the beginning of a historic relationship that would eventually transform Queen's and ultimately Chemistry as a global enterprise. That was the day that one of the University's most prominent and generous supporters, Alfred Bader, BSc'45, BA'46, MSc'47, LLD'86, arrived. He was greeted by University Registrar Jean Royce, and Professor Arthur Jackson showed him around campus. Dr. Bader launched one of the world's top chemical companies and became a treasured friend to Queen's University, supporting numerous bursaries, scholarships, and research chairs, among others. •

## **Message from the Head**

Dr. Philip Jessop

Whether you are a current, past or prospective student; a family member, an employee, or a member of the public, industry, or government – you are welcome here. We value a diversity of experience and backgrounds because that diversity helps us achieve our goals of excellence in teaching, research, and the betterment of society.



The Department of Chemistry at Queen's University is situated on traditional Anishinaabe and Haudenosaunee Territory. To acknowledge this traditional territory is to acknowledge this territory's significance for the Indigenous Peoples who lived, and continue to live, upon it and whose practices and spiritualities were tied to respect for the land. We can honour and continue that respect for the land by doing our utmost, in our research and teaching, to further the goals of sustainability and by recognizing the effect that chemistry can have, for better or worse, on people and the environment.

We prepare our undergraduate and graduate chemistry students for the opportunities and challenges that face us in the 21st century, including climate change, pandemic preparedness, waste plastic, and the rise of artificial intelligence and machine learning. We have recently signed the Green Chemistry Commitment, meaning that we will build green and sustainable chemistry concepts into more of our lecture and lab courses, beyond our existing elective courses on those subjects. We also contribute, with our research, towards 9 of the UN sustainable development goals. Queen's University is ranked first in Canada and sixth in the world for sustainability.

This edition of Q-Chem Chronicles covers the period July 2024-June 2025. Over that time, our department has seen several changes in staff, as is described in the message from the Department Manager. We have just hired a new faculty member in nanomaterials and surface science (Dr. Taleana Huff), thanks to a very generous donation from Queen's alumnus Bruce Mitchell. The department has also received major gifts from our generous donors. We are grateful for all donations, large or small, in these uncertain times.

Queen's Chemistry is a leading department for education and research because:

- Our Department is located in [Chernoff Hall](#), an award winning building with inspiring architecture and state of the art [facilities](#).
- Our [faculty](#) have received more national awards for excellence in the past 5 years (per professor) than any other chemistry department in Ontario, including 5 Canada Research Chairs, a Bader Chair, a Cottrell Scholar, and an Allie Vi Douglas University Professorship.
- We offer a number of exciting [undergraduate degrees in chemistry](#), including a joint program with Environmental Studies. We also provide the chemistry expertise required for Engineering Chemistry undergraduate students to graduate with dual accreditation (as both engineers and chemists). Undergrads have many opportunities to [work in our research labs](#) during the summer months, or as 4th year students during their capstone research projects. Such students often attend chemistry conferences and become co-authors of articles that are published in top chemistry journals. Many of our undergraduates proceed to graduate studies.
- We also offer an exciting [graduate studies program](#) that is currently instructing 119

graduate students at the MSc and PhD level. Our students receive a competitive minimum [stipend](#) (which rapidly increases with awards!) and are ably represented by the Queen's Graduate Chemistry Society. They are also highly successful in winning [awards](#) (nearly 50% are award holders!), and go on to hold positions in academia, government, and industry following graduation.

- Our Department offers an [accelerated MSc program](#) for our ambitious chemistry undergraduates, and a [Dual MSc program](#) in partnership with the University of Stuttgart to those students who wish to study abroad.
- In addition to studying chemistry in our graduate program, we also offer [graduate courses](#) in Scientific Ethics, Business Skills for the Chemical Industry, and Leadership Skills.
- Our Department is closely connected to industry through the [Queen's Chemistry Innovation Council](#) (QCIC), a [group of business leaders and executives](#) who advise our department and provide career guidance to our graduate students.

Our department hosts three institutes and networks:

- The [Carbon-to-Metal-Coatings Institute](#) (C2MCI), an international institute that aims to develop coating materials that will enhance the stability of metals used in transportation, electronics, and precision medicine.
- [Open Plastic](#), a Genome Canada funded program dedicated to finding a biological solution to reduce waste plastic.
- The [Contaminants of Emerging Concern – Research Excellence Network](#) that develops new methods of detecting and treating new pollutants such as waste pharmaceuticals.

In closing, I would like to highlight one last distinguishing feature of our Department, and that is our [sense of community](#). Chernoff Hall, with its many common areas, encourages many informal chats among students, faculty, and staff during coffee and between lunch breaks. Undergraduates hang out and study outside the offices of faculty in our wonderful 4th floor atrium and often get to know our faculty personally. With this in mind, if you are interested in joining our chemistry community as an undergraduate or graduate student, please feel free to contact me for more information at [depthead@chem.queensu.ca](mailto:depthead@chem.queensu.ca).

I look forward to hearing from you! •

# Message from the Departmental Manager

Lindsay Lee



The Department of Chemistry has completed another year of remarkable success and vibrant activity. Our teaching teams have skillfully accommodated increasing enrollments while continuing to refresh and innovate our academic offerings. Our research teams have further elevated the department's reputation through groundbreaking innovations and prestigious awards. Meanwhile, our administrative staff remains the steadfast backbone of the department, providing efficient and effective support to our entire community. Our faculty, staff, and students are the heartbeat of the department—their continued collaboration and unwavering commitment to excellence make this an exceptional place to learn and work.

This year, our staff have also been recognized for their outstanding contributions within and beyond the department. Megan Ariki, Carbon to Metal Coating Institute (C2MCI)'s Coordinator of Partnership Agreements & Operations, received the Queen's University Special Recognition Staff Award for her leadership in international research collaboration and her dedication to enhancing the student experience. Patricia Oprea, our Graduate Assistant, received the Society of Graduate and Professional Students Staff Excellence Award for her exceptional support of graduate students and for improving administrative processes within the department.

We were pleased to welcome several new team members over the past year. Emerson MacNeil joined us in May 2024 as Microscopy Facility Instrumentation Manager, overseeing our transmission and scanning electron microscopes, optical microscope, and atomic force microscopes. Amanda Meekel returned in July 2025 as our Financial Assistant, providing support for our Chemistry Stores. Simon van der Plas was hired in July 2025 as a Chemical Technologist (term) supporting our second-

and third-year undergraduate laboratories. At the same time, we said farewell and thank you to Sohaib Ghazi (Financial Assistant – term), Bill Free (Instrumentation Technologist), Edward Maracle (Computer Network Administrator/Electronics Technologist), and Andrew Boddington (Technical Support Assistant). We sincerely thank them for their many contributions and wish them all the best in their next chapters.

The department has also implemented several exciting facility upgrades, including new equipment for undergraduate laboratories, updated computers for our teaching spaces, a new 400 MHz NMR spectrometer, and a new UV-Vis spectrometer. I want to thank our team for their commitment to maintaining our facilities and their support in procuring this important equipment. I also want to express our appreciation to our donors, whose generous contributions make it possible to invest in the essential and innovative technologies that move our department forward.

On a personal note, I would also like to share that I will be saying farewell to the Department of Chemistry. It has been a true pleasure to support this community over the past four years, and I am deeply grateful to have been a small part of your journey. This time has been a highlight of my professional life. Together, we've built friendships and community that made the toughest days manageable and the best days truly memorable. I know many of you can recall some standout moments—we've certainly navigated more than a few episodes of "as the Chemistry world turns"—and I will carry those memories with me, always.

In that spirit, I'm pleased to welcome Alexandra Fox, who will be stepping in as Department Manager (term). Alexandra joins us from the Faculty of Arts and Science, where she served as Interim Manager of Research Grants, and brings additional experience from her previous role as Department Manager of the School of Economics. Her knowledge of research-related financial management and departmental operations will be a valuable addition to our team.

In closing, I want to recognize and thank all the incredible staff, faculty, and students who contribute every day to the mission and vision of the Department of Chemistry. It has been a privilege and a joy to work alongside such a dedicated and innovative team. Thank you for making this community one that continues to thrive.



# Undergraduate Life

By Jack Dukart



*Jack Dukart (right) at thesis night talks with undergraduates*

The Chemistry Departmental Student Council (DSC) would like to congratulate everyone on finishing the 2024-2025 school year! As representatives for our department, our goals this year were to enhance the sense of community among students, staff, and faculty, as well as provide students with tools to further their careers and education in chemistry. With an amazing team of 20 undergraduates, we were able to host a wide range of both social and academic-based events!

A few of the social highlights included the long-standing tradition of “Pool with Profs,” the “End of Year Social” and a new “Slime Night” event. Each year the DSC rents out pool tables at the Grizzly Grill, where members of the chemistry community, from undergrads to professors, get to hang out, relax, and play some pool. This year was no different, and with a turnout of almost 100 people, the DSC was very happy with our success. Later in the semester, we ran our very first “Slime Night,” which turned out so well that we ended up not having enough room to fit all the people who wanted to come! Although this is a new event, we hope “Slime Night” can become a tradition as loved as “Pool with Profs.” The year ended with our “End of Year Karaoke Social” hosted at the Mansion, where many students came to finish out their semester with a song.

Some of the academic-based events were also big hits, with great feedback from both our “Career Night” and “Thesis Night.” At the start of second semester, “Career Night” consisted of many of our own professors as well as industry

personnel and even a small business owner talking about their journeys that landed them where they are today. Later in the semester, “Thesis Night” was held, to help soon-to-be fourth-year students get a good understanding of what it is like to write a thesis. Some professors also spoke at this event, giving students an idea of what type of research they could be doing.

The final role of the DSC this year was to award the “Graduating Class Award for Excellence in Teaching Chemistry.” This award is chosen by the graduating class and goes to a faculty member who excelled in their teaching duties. We were thrilled to award the 2024-2025 Graduating Class Award to Dr. Lucia Lee. Congratulations Dr. Lee!

It has been such a great year for the DSC, which is in no small part thanks to the phenomenal group of young chemists we had working on the team. It is also important to note that this year could not have gone as smoothly as it did without the help of the incredible administrative staff that the chemistry department is very lucky to have. Finally, the DSC would like to wish the coming years’ co-presidents, Avery Foster and Katie Fry, good luck. We know you will do amazing things! •



*Slime Night*

# Graduate Life

The Department of Chemistry would like to highlight the activities of our graduate student groups over the 2024-2025 Academic Year.

The Queen's Graduate Chemistry Society (QGCS) was founded in 2009 by a group of graduate students to act as the representative organization of all graduate students in the Department of Chemistry of Queen's University.

The society is intended to promote and organize social, recreational and educational activities for its members, help foster a relationship between the graduate students and the faculty of the Department, improve the quality of student life and education for the graduate students of the Department, and to promote recruitment of new students to the Department.

The QGCS is also a Student Chapter of the Chemical Institute of Canada. The QGCS hosted many social events throughout the year, including their annual BBQ and launched a new event, The Tri-Floor Cup.

In Chernoff Hall, there are three floors in the research wing: the 3rd, 4th, and 5th. QGCS wanted a fun initiative to bring graduate students together and increase the participation in events by creating the Tri-Floor Cup.

Each floor competes against the others to gain points and win the cup by the end of the respective school year. Points are awarded in various ways, with the primary method being participation in events. Otherwise, depending on the event, more points will be given to top performers, and even more points for participation from staff members. Here are a few examples of recent events:

- **That's a Lotta Septa!** Guess the number of septas in the Erlenmeyer flask.



- **Beers with Queers**  
Grab a beverage with peers to celebrate Pride Month. This event was not affiliated with QGCS, but participation points were awarded towards the Tri-Floor cup.

- **Oh Baby! Guess Who?** Figure out which baby photo matches the staff or faculty member.



**ACS Student Chapter**  
Queen's University at Kingston  
Chemistry for Life®

o Queen's University Student Chapter of the American Chemical Society

(Q-ACS) was created in 2022. This group is initiated and led by a group of (inter)national (under)graduate students and contributes to the vitality of Queen's University's chemical community in many ways. Throughout 2024-2025 Q-ACS hosted many events, including:

- **Bader Symposium** – highlighted earlier.
- **Helping Handbags Kingston** – Supporting the Civil Engineering Department to provide essential hygiene products for women in need, with all contributions supporting Dawn House Women's Shelter.
- **Spring Reception** – providing a valuable opportunity for faculty, students, and researchers to connect, share insights, and strengthen the collaborative network that fuels innovation within our chemical sciences community.
- **Green Chemistry Commitment Signing Ceremony** – Q-ACS hosted the ceremony

including an inspiring seminar by Dr. [John Warner](#) CEO & CTO of Technology Greenhouse, and a networking lunch. This signing marks Queen's official participation in the Green Chemistry Commitment, an initiative led by [Beyond Benign—Green Chemistry for a Sustainable Future](#) which supports institutions in integrating green chemistry principles into education and research.

We encourage you to engage with their website (<https://qacsstudentchapter.wixsite.com/q-acs>) which highlights their events and includes a public outreach section including:

- **Monthly Mind**, which aims to inspire and provide insights on various subjects related to industry and academia. Every month, a distinguished professor and/or industry professional shares their expertise. These individuals will provide a paragraph or video discussing their work and the unique path that led them to their respective fields.

- **Which is Greener?** Ever stood in a store, torn between two products and unsure which one is better for the environment (cotton or plastic bags, can or pop bottle, etc.)? Dr. Philip Jessop, a scientist dedicated to green solutions, can help! He interprets Life Cycle Assessments (LCAs), which measure the environmental impact of products. While LCAs are often complex and technical, Philip translates these findings into clear, accessible information for consumers, adding extra insights not covered in the original assessments.



Which is Greener?



*Which is greener? Single Bags: Plastic or paper bags? The answer may surprise you.*

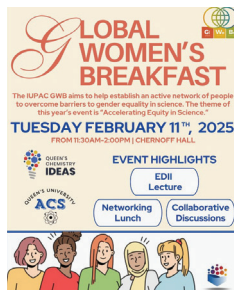
- **ScienXeLife**, designed to spotlight captivating scientific topics through bimonthly social media features and blog posts. From biology and chemistry to engineering, machinery, and more, each post explores how science shapes the world around us. •

o Queen's Chemistry Inclusivity, Diversity, Equity, and Awareness Society

(QC-IDEAS) was formed in 2022 and is dedicated

to promoting an equitable, diverse and anti-racist climate within the chemical sciences and STEM through intersectional education and collaboration. Queen's Chemistry IDEAS fosters an inclusive environment, advocates for the rights of marginalized students and disseminates educational resources on equity and allyship.

In 2025 QC-IDEAS and Q-ACS partnered to celebrate women and gender diverse folks in STEM with the International Union of Pure and Applied Chemistry (IUPAC) Global Women's Breakfast. This year's theme was "Accelerating Equity in Science", and the seminar speaker was Dr. Shideh Ahmadi, a postdoctoral fellow in Mosey Group, specializing in computational chemistry, materials science, and electrochemistry. Following the seminar there were small discussion circles with provided questions (e.g., "What qualities do you think a good scientist should have? What makes you a good scientist? Historically there has only been one view of what a scientist is.") •



*Participants of the IUPAC Global Women's Breakfast*

# Carbon to Metal Coating Institute International Research Expansion



**CARBON TO METAL  
COATING INSTITUTE**  
at Queen's University

By Jyoti Kotecha

On October 18th, 2024, the Carbon to Metal Coating Institute (C2MCI) launched its Africa Research Network. This network will create collaborations among researchers across the African Continent and will expand the C2MCI research program which is aligned to Queen's commitment to United Nations Sustainable Development Goals (9, 11, 12, & 17). The purpose of the initiative is to expand the C2MCI research program, promote global knowledge translation, share research infrastructure, and to increase the number of international graduate training opportunities offered by the institute. The network currently includes senior, mid-career and early career researchers from seven academic institutions across the African continent.

The C2MCI is a Tier 1 international research institute in the Department of Chemistry focused on developing cutting edge solutions to prevent the corrosion of metals and enable their manipulation and stabilization on the macro to nanometer scales. Our diverse global team includes experts from chemistry, physics, health sciences, and engineering. Our current research mandate includes developing and testing the next generation of organic coatings for bulk metal surfaces, the application of novel carbene-based materials in semiconductor manufacturing, and the development and testing of novel carbene-stabilized nanomedicines.

To facilitate collaborative research, the C2MCI awarded on a competitive basis four team research awards, each valued at a total of \$50K over 2-years (total \$200K over 2-years.) The award supports proof-of-concept projects, that

will expand testing of coating and nanoclusters developed at Queen's. Funded projects will test applications of our materials for improved tuberculosis and cancer therapeutics, modified electrochemical energy conversion and storage, and corrosion protection of renewable energy infrastructure in marine environments.

In celebration of the launch of the Africa Research Network Dr. [Kelly Chibale](#) from the University of Cape Town, South Africa providing a virtual seminar (title: Fostering drug discovery in Africa) that was attend by close to 100 participants. Dr. Chibale is a Professor of Chemistry and is appointed at the Institute of Infectious Disease and Molecular Medicine. He is a world class researcher who has extensive experience in drug development, and his work is directed at finding therapeutics for people of colour. He was also a recipient of one of four C2MCI research awards.

The Africa Research Network is a first step in the expansion of international research collaborations. On November 18th, 2024, the C2MCI also signed a formal research exchange agreement with the University of Tokyo. This agreement will increase the number of exchanges and training opportunities offered by C2MCI to our graduate students and post-doctoral research associates. In coming years, C2MCI will focus on increasing research collaborations across Europe and elsewhere. •





# Ontario Research Fund Contaminants of Emerging Concern – Research Excellence Network Activities

By Prama Roy and Rachel Korchinsky

2024–2025 has been a year of growth, collaboration, and meaningful impact for the Ontario Research Fund (ORF) Contaminants of Emerging Concern – Research Excellence Network (CEC-REN). Over the past year, CEC-REN has continued to advance innovative research while expanding outreach in schools, industry, and the broader Kingston and southeastern Ontario community.

The following highlights capture some activities that have shaped this dynamic year:

## • CEC-REN Visits Ravensview Wastewater Treatment Facility

In August 2024, students and researchers from CEC-REN, together with the Beatty Water Research Centre, spent a day touring Kingston's Ravensview Wastewater Treatment Facility. The visit offered a close look at how wastewater is transformed into safe water, sparking conversations about contaminant pathways and sustainability. This was an opportunity for the group to observe the direct connections between their research and real-world environmental systems.

## • CEC-REN Participates in Science Rendezvous 2025

On May 10th, 2025, CEC-REN participated in Kingston's annual Science Rendezvous. Our booth welcomed visitors of all ages to explore emerging water contaminants through hands-on activities and interactive demonstrations. Visitors learned about the impacts of contaminants on ecosystems and human health, as well as new methods for detection and treatment of contaminants. Thanks to our Youth Outreach and Education Coordinators

and enthusiastic team of volunteers for the success of this event.



*Participants of the IUPAC Global Women's Breakfast*

## • CEC-REN Visits Perth Road Public School

In May 2025, CEC-REN representative Rachel Korchinsky visited Perth Road Public School with Angela Lyon (Patent Agent, Queen's University). Students explored the science behind water contaminants and were introduced to how chemistry connects to new ideas and practical problem solving. Interactive demonstrations and open discussions sparked curiosity about invention and environmental stewardship. We thank the Perth Road Public School staff and students for the warm welcome.

## • CEC-REN Hosts Second Annual Symposium

On June 5, 2025, CEC-REN hosted its second annual symposium in Chernoff Hall. The event brought together an interdisciplinary group of students and faculty for a full day of knowledge sharing through research presentations, posters, and discussion. Highlights included a keynote presentation by Dr. Stephen Brown titled, "Wastewater surveillance: chemistry meets microbiology meets civil engineering to address public health." The symposium also featured an interactive Creativity and Invention workshop led by Dr. Philip Jessop. We thank all participants for their contributions.



*CEC-REN members at Second Annual CEC-REN Symposium, June 5, 2025. From left to right: Dr. Stephen Brown, Dr. Zhe She, Dr. Pascale Champagne, Ana Gisell Pazmino-Sosa, Dr. Philip Jessop, Rebecca Chen, Maryam Aghili, Rachel Korchinsky, Prama Roy, Dr. Aris Docoslis, Rhiannon Punch, Claire Ellison, Mia Robeiro-Tunstall, Fatemeh Sadat Arghavan, Charlotte Sabourin, Shari Glustein.*

## • CEC-REN Hosts School Visits with La Salle Intermediate and Secondary School

Throughout June 2025, in collaboration with the Department of Chemistry and La Salle Intermediate and Secondary School, CEC-REN hosted three interactive school visit excursions. Students learned about the impact of water contaminants on ecosystems, carried out hands-on lab experiments, and toured the Department of Chemistry facilities. These visits connected classroom learning with real-world research, inspiring students to see how environmental science can make a difference. We thank all teachers, faculty, staff and students for organizing and participating in this event. •



*CEC-REN representatives, Department of Chemistry staff and faculty representatives and La Salle Intermediate and Secondary School teaching staffs at Chernoff Hall. From left to Right: Cole Reed, Prama Roy (CEC-REN), Rachel Korchinsky (CEC-REN), Dr. Alayna Boyd, Laura Hull, Dr. Jason Vlahakis, Dr. Paul Duchesne, La Salle School teaching staffs, Julia Tropak.*

# Analytical Chemistry Conferences in Kingston in May 2025

By Dr. Diane Beauchemin



In May, Dr. Diane Beauchemin organized Spectr'Atom 2025, a conference held entirely in French and devoted to atomic spectrometry, and the 67th International Conference on Analytical Sciences and Spectroscopy (ICASS 2025). Both events were held at the Holiday Inn

Kingston Waterfront Hotel, and all meals were included in the registration fee, with hot-buffet breakfast, coffee breaks and lunch held in the exhibition room common to both events.

On May 26th, Spectr'Atom 2025 was held. Three anglophone PhD students from the Beauchemin group, who had accepted their supervisor's challenge to present a poster in French, each won a poster prize! The winners were Chloe Wheeler (1st prize), Darrian Prendergast (2nd prize) and Madison Langley (3rd prize). Spectr'Atom continued in parallel with ICASS from May 27 - May 29.

As part of the conference, on May 27th, a 3-hour sunset dinner cruise of the Thousand Islands departed a few steps from the hotel. Attendees were treated to a spectacular sunset. On May 28th, Rob Driscoll performed a comedy magic show, "Strolling Magic" during a reception sponsored by Bruker. This entertaining show preceded the hot-buffet banquet sponsored by ESI, and included participation from volunteers (or people who were convinced to volunteer...). Participants from 7 countries (including Canada) made this double event international. Queen's students again claimed the three poster prizes for ICASS: Jess Deng (1st prize, PhD student in the Oleschuk group), Karissa Riopelle (2nd prize, undergraduate student in the Beauchemin group), and Yangyang Wang (3rd prize, PhD student in the Beauchemin group). Clearly, Queen's Chemistry undergraduate students can successfully compete with PhD students! In case you are wondering, the judges for the Spectr'Atom and ICASS posters were from institutions other than Queen's and there were also posters from other institutions.



*Part of the Beauchemin group enjoying the sunset (despite the May flies!) during the dinner cruise. Left to right, front to back: Qiqi Zhang, Madison Langley (3rd place Spectr'Atom 2025 poster prize), Helen Lord, Yangyang Wang (3rd place ICASS 2025 poster prize), Chloe Wheeler (1st place Spectr'Atom 2025 poster prize), Karissa Riopelle (2nd place ICASS 2025 poster prize), Xinzhi Cai, Darrian Prendergast (2nd place Spectr'Atom 2025 poster prize), Zichao Zhou, Dr. Diane Beauchemin, William Hachey.  
Photo by Qiqi Zhang.*

Based on the feedback received from attendees, the double event was a success. People commented that the hotel had the best view and best food so far. They also appreciated that the registration fee was kept to a minimum while including all meals. They found the atmosphere family-like and relaxing, with time for coffee, treats (the popcorn coffee break was very popular) and washroom visits during the 40-min coffee breaks. They also enjoyed the food variety, such as a hot-buffet lunch with a different flavour each day (Chinese, Mexican, Mediterranean, etc.). •

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## Spotlight on a Graduate Student: Daniel Reddy

Daniel Reddy, a PhD student in the Oleschuk Group, stood out this year with the number of recognitions that he received over three months.

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## April 2025

### o 2025 CAS Future Leaders™

Dan Reddy was selected as a 2025 Chemical Abstracts Service (CAS) Future Leader. The CAS Future Leaders program supports the growth of science leadership among 35 early-career scientists each year. Since 2010, the program has awarded PhD students and postdoctoral scholars opportunities to learn leadership skills, engage in scientific discourse, and connect with peer scientists and innovators from around the world. Dan's selection was highlighted by [Chemical & Engineering News](#) and [Queen's Arts and Science](#).

### o 2025 Pittcon/ACS Analytical Summer Graduate Fellowship

Dan also received the [2025 Pittcon/American Chemical Society \(ACS\) Division of Analytical Chemistry Summer Graduate Fellowship](#). The ACS Division of Analytical Chemistry Graduate Fellowship Program is designed to encourage basic research in the field of analytical chemistry, to promote the growth of analytical chemistry in academic institutions and industry, and to provide recognition of future leaders in the field of analytical chemistry.

### o Recognition at 2025 ACS Spring National Meeting

Dan attended the 2025 ACS Spring National Meeting in San Diego, California, USA, to receive the 2023-2024 Outstanding Student Chapter Award on behalf of the Queen's University International Student Chapter of the American Chemical Society (Q-ACS).

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## May 2025

### o Prize at the 10th Annual Green Chemistry Initiative Symposium

Dan Reddy received one of the Best Poster Prizes at the 10th Annual Green Chemistry Initiative Symposium at the University of Toronto. This year's symposium theme was "Thinking Green(er) in Daily Life."

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## June 2025

### o Easter Analytical Symposium's Graduate Student Research Award

In June 2025, Dan received one of the four [Eastern Analytical Symposium's \(EAS\) Graduate Student Research Awards](#). EAS continues to actively support a Student Research Awards program to recognize students involved in research in the broad field of analytical chemistry. Daniel is the only graduate student representative from a Canadian University and was chosen from a field of very worthy candidates.

### o Outstanding Student Leader Award

Dan also received the Queen's University Alumni Association's [Outstanding Student Leader Award](#) at the gala in Toronto. This award recognizes a current Queen's student whose volunteerism and leadership has contributed in a positive way to one or more aspects of the Queen's community in all its diversity and/or the broader Kingston community.

### o Best Poster Prize at the 29th Annual ACS Green Chemistry & Engineering Conference

Finally, Dan received one of the Best Poster Prizes at the 29th Annual ACS Green Chemistry & Engineering Conference in Pittsburgh, Pennsylvania USA. This year's theme was "Good Health & Well-Being Through Sustainable Chemistry." •



*Daniel Reddy (middle) holding the award handed by Principal Patrick Deane (left)*

## 2024-2025 Department Highlights

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## August 2024

### • American Chemical Society Fellowship



The American Chemical Society (ACS) named Dr. Cathy Crudden an ACS Fellow, recognizing her outstanding contributions to science, the chemistry profession, and the ACS.

### • American Chemical Society Sustainability Star

PhD candidate Rachel Korchinsky (Jessop Group) has been recognized as an American Chemical Society (ACS) Sustainability Star for her outstanding leadership in sustainability-focused science outreach. At the 2024 Science Rendezvous,



Rachel engaged the public on the topic of environmental pollutants and advocated for sustainable actions. Building on this momentum, she launched a school outreach initiative focused on aquatic contaminants, bridging scientific research with community education. Rachel currently serves as one of the Youth Public and Outreach Coordinators for the Contaminants of Emerging Concern Research Excellence Network (CEC-REN). She was also selected as a Development Auditor for Students Organizing for Sustainability (SOS-UK), a position awarded through a partnership between the Queen's University Office of the Principal and the AMS Office of the Sustainability Commissioner. In this role, she assessed the university's progress toward integrating education for sustainable development. Rachel's research focuses on removing contaminants from water systems, for which she received two poster prizes: Separation Processes for Sustainability, from the Canadian Society for Chemical Engineering, and Best PhD Poster, from the Chemical Engineering Graduate Student Association.



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## October 2024

### • 2023-2024 Outstanding ACS Student Chapter



Q-ACS was officially designated as a 2023-2024 Outstanding Student Chapter by the ACS Society Committee on Education. During the 2023-2024 academic year, 84 chapters received outstanding designations, 139 were commendable, and 126 received honorable mention.

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## November 2024

### • Tier 2 Canada Research Chair



Dr. Chantelle Capicciotti received a Tier 2 Canada Research Chair for her glycan research — the complex carbohydrates coating all cells. Her research aims to uncover the efficient synthesis methods and tools for studying their interactions with protein, which are essential to answering fundamental questions in cellular biology and developing more effective medicines to treat disease.

### • Interview by Chemical & Engineering News

Daniel Reddy, Max van Zyl, and Dr. P. Andrew Evans were interviewed by [Chemical & Engineering News](#) for their work organizing the Bader Symposium. Daniel Reddy, in collaboration with Dr. P. Andrew Evans, received the [Brockington Visitorship](#), one of Queen's University's most prestigious public lectureships, to host Dr. Daniel J. Bader for the symposium.

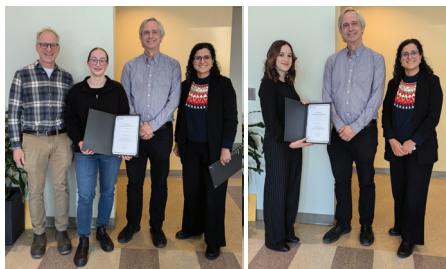
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## December 2024

### • Royal Society of Chemistry Undergraduate Excellence Award

Rachel Wood (Oleschuk Group) and Zoë Gubinczi (Nunzi Group) received the

Royal Society of Chemistry Certificate of Undergraduate Excellence Award! This award recognizes their exceptional dedication, performance, and engagement in coursework and research.



From left to right: Dr. Richard Oleschuk, Rachel Wood (Oleschuk group), Dr. Philip Jessop, Dr. Farnaz Heidar-Zadeh ; Zoë Gubinczi (Nunzi group), Dr. Philip Jessop, Dr. Farnaz Heidar-Zadeh

### • Angewandte Chemie Introducing Profile

Angewandte Chemie, International Edition, has featured Dr. Graeme Howe in their Introducing profile. The Introducing profiles focus on their first-time corresponding authors, highlights their personal and professional lives, and lets them tell the stories behind the science.



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## January 2025

### • ACS Historic Chemical Landmark

Daniel Reddy and Mark McKeown (both graduate students in the Oleschuk group) received approval for two ACS Historic Chemical Landmarks honoring the late Dr. Alfred R. Bader – one Landmark at Queen's University and one at Bader Philanthropies, Inc. headquarters in Milwaukee, Wisconsin. The Landmark at Queen's will be the first ACS International Landmark designated in Canada in 20 years, since the last [Landmark](#) at the University of British Columbia in 2006 honoring Professor Neil Bartlett, who demonstrated the first reaction of a noble gas by combining xenon with platinum hexafluoride.

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## March 2025

### • Youth STEM engagement at FLASF 2025



Tyler Rotholz (undergraduate student, Howe group), a member of the Q-ACS executive, represented the Department of Chemistry as a judge at the 2025 Frontenac, Lennox, and Addington Science Fair (FLASF). The fair brought

together over 150 innovative science projects, evaluated by a diverse panel of students and professionals from various scientific disciplines. Tyler found the experience both inspiring and rewarding, particularly in witnessing the passion, creativity, and dedication demonstrated by the participating students. A highlight of the day was presenting the “Best Project in Pure and Applied Chemistry” award—sponsored by the Department of Chemistry—to a deserving young scientist whose work stood out for its excellence. Initiatives like these play a vital role in fostering the next generation of scientists and innovators.

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## April 2025

### • Award-Winning 4th Year Research Project

Mikaela Coleman (Howe Group) won the M. Sullivan and Son Limited Scholarship for their thesis “Engineering Hyperthermostable Nylonase, TvgC, to Improve Catalytic Efficiency for Degradation.”



### • Q-ACS Spring Reception: Celebrating Collaboration and Cross-Disciplinarity in the Chemical Sciences

Q-ACS was delighted to host its third annual Spring Reception on Wednesday, April 2nd, “Celebrating Collaboration and Cross-Disciplinarity in the Chemical Sciences.” The event featured keynote speaker Dr. Cathleen Crudden, Tier 1 Canada Research Chair in Metal Organic Chemistry, who emphasized



#### *Q-ACS Spring Reception*

the value of cross-disciplinary research and seizing new opportunities. The event welcomed approximately 130 attendees from Queen's University and the Kingston chemical sciences community, including students, postdoctoral scholars, faculty, staff, and industry professionals. A one-hour networking session fostered meaningful connections and knowledge exchange. The evening concluded with the presentation of nine Q-ACS awards: four awards through the 2024 ACS Graduate Student and Postdoctoral Scholars Recognition Program, and five awards through the 2025 Q-ACS Excellence Awards program. Awardees were recognized for achievements in mentoring, research safety, diversity and inclusion, and cross-disciplinary collaboration. The event not only celebrated the accomplishments of graduate students and postdoctoral scholars but also laid the necessary groundwork for future initiatives that prioritize interdisciplinary collaboration, community engagement, and student leadership.

### • 2024/2025 School of Graduate and Professional Student Staff Excellence Award

For the third year in a row, a staff member of the Department of Chemistry has won the 2024/2025 School of Graduate and Professional Student (SGPS) Staff Excellence Award! This award recognizes a staff member at Queen's who has made a significant contribution to the SGPS membership outside the classroom. Patricia Oprea, our graduate administrative assistant, is this year's recipient. Patricia's dedication to improving financial processes, leveraging technology for administrative efficiency, and providing stability demonstrate her commitment to the success and well-being of graduate students.

## • 2024 Special Recognition for Staff Award



Megan Ariki was one of eight individuals and two teams across Queen's who were celebrated as recipients of the Special Recognition for Staff Award. Megan was identified for going above and beyond her day-to-day activities, creating a lasting positive impact across the Queen's community as the Research and Communications Coordinator of C2MCI. Megan champions international research collaboration and has directly assisted over 200 researchers in six different countries. She consistently exemplifies professionalism and creates a positive and lasting impression on all guests and visitors to the university. Megan's ability to foster connections, improve processes, and provide invaluable support makes her an indispensable asset to the university community. In 2025, Megan became the Coordinator of Partnership Agreements & Operations for C2MCI.



Leadership of Q-ACS holding the AMS Club of the Year trophy. From left to right: Jose Giovanni Leite de Brito, Max van Zyl, Aviva Gerring, Rachel Korchinsky.

## • Club of the Year

Q-ACS was selected as "Club of the Year" by the Alma Mater Society of Queen's University. This award is granted to the club that exemplifies the spirit of Queen's and the clubs community through performing at an exceptional level. Clubs make unique and important contributions to the Queen's community. The work that they do ranges from activities that make the university feel like home, to giving back to the community, locally or globally, and much more. Each year, the Queen's Clubs Office recognizes several clubs for their contributions and successes on campus and in the community.

## May 2025

### • Green Chemistry Commitment Signing Ceremony

On Tuesday, May 6th, Q-ACS hosted the Queen's University Green Chemistry Commitment (GCC) Signing Ceremony, featuring an inspiring seminar by Dr. John Warner, CEO & CTO of Technology Greenhouse. This gathering celebrated the Department of Chemistry's achievement in becoming a signatory of Beyond Benign's GCC, a milestone that Q-ACS helped to achieve. Introduced by Dr. Jessop, Tier 1 Canada Research Chair in Green Chemistry and Chemistry Department Head at Queen's University, Dr. Warner delivered the inspiring talk, "Green Chemistry as the Foundation of Sustainability and the Circular Economy." Throughout his talk, Dr. Warner shared powerful insights into how green chemistry is shaping a more sustainable future. Following the seminar, attendees gathered



Participants in the GCC signing ceremony. From left to right: Tyler Rotholz, Rachel Wood, Rachel Korchinsky, Jose Giovanni Leite de Brito, Dr. John Warner, Dr. Philip Jessop, Max van Zyl, Dr. Juliana Vidal, Dr. Hridaynath Bhattacharjee

over a networking lunch to celebrate. Signing the GCC marked a meaningful milestone in advancing green chemistry education at Queen's University. You can read more about the GCC event in an article, "[From Our Community: How Student Leadership Helped Bring the Green Chemistry Commitment to Queen's University](#)," published on the Beyond Benign website.

## • Green Chemistry Initiative Symposium

Q-ACS was honored to celebrate a decade of promoting sustainable practices at this year's 10th Annual Green Chemistry Initiative (GCI) Symposium, "Thinking Green(er) in Daily Life," in collaboration with Green Chemistry McGill and the GCI at the University of Toronto. Q-ACS hosted Dr. Philip Jessop (Department of Chemistry, Queen's University), Dr. Kevin De France (Smith Department of Chemical Engineering, Queen's University), and Dr. Tim Clark (Impact Chemistry), who shared their expertise and insights with an engaged and forward-thinking community of green chemistry practitioners. The event brought together passionate students, researchers, and leaders dedicated to advancing sustainability in the chemical sciences.

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## June 2025

### • 2025 Springer Nature Editorial Contribution Award



Dr. Gregory Jerkiewicz received the 2025 Springer Nature Editorial Contribution Award. This award recognizes the editor's meticulous assessment of submissions and rigorous management of the peer review process, safeguarding the scientific accuracy of the published record.

### • Essay for *The Conversation*



Dr. Amanda Bongers teamed up with Art History student Madeleine Dempster to write an essay for *The Conversation* about how careful attention to visual detail is essential for understanding both chemistry and art.

### • Q-ACS Presentation at Canadian Society for Chemistry Conference and Poster prize

As part of the 2025 Canadian Society for Chemistry (CSC) conference programming, Q-ACS was invited to present during the ACS on Campus (ACS Publications) session on June 17th titled, "10 Tips for Promoting and Advocating for Your Career." The session was introduced by Dr. Rigoberto Hernandez (ACS President-Elect) and presented by Q-ACS executive member Rachel Korchinsky (Q-ACS Vice-President). This professional development session focused on how early-career scientists can build confidence, self-advocate, communicate their value effectively, and leverage resources like ACS to support career growth. Q-ACS was featured in each of the 10 tips, demonstrating how student-led initiatives can create a meaningful impact through teamwork, outreach, and peer support. The presentation highlighted the crucial role that student organizations play in helping emerging scientists gain visibility, develop leadership skills, and establish lasting momentum in their careers. Rachel also received the 1st Place Poster Prize from the CIC Environmental Division at the CSC conference.



*Chemistry attendees of the GCI symposium. From left to right: Daniel Reddy, Tyler Rotholz, Fatemeh Sadat Arghavan, Rachel Wood, Rachel Korchinsky, Dr. Philip Jessop, Jose Giovanni Leite de Brito, Dr. Kevin de France Dante Grobler Flores, Dr. Hridaynath*



## • Keith Laidler Award

Dr. Kevin Stamplecoskie received the 2025 Keith Laidler Award from the Canadian Society for Chemistry (CSC) at the Canadian Chemistry Conference and Exhibition held in June 2025 in Ottawa. This award recognizes outstanding early-career contributions to physical chemistry, for research carried out in Canada by a scientist residing in Canada.



*Dr. Kevin Stamplecoskie (right) receiving an award certificate from a CSC representative*

## • CIC Fellowship

Dr. Diane Beauchemin has been elected as a 2025 Fellow of the Chemical Institute of Canada (CIC). CIC Fellowship is a senior class of membership that recognizes the merits of CIC members who have made outstanding contributions across multiple areas: (i) Scientific, Engineering and Technical Contributions, (ii) CIC, CSC, CSChE Service, (iii) Management of Science, Engineering or Technology, (iv) Teaching, Mentorship, and Public Awareness.



*Dr. Diane Beauchemin (right) receiving a fellowship certificate from a CIC representative*



Queen's  
UNIVERSITY

Chemistry

*Bader Symposium Group (below)*



## Top Journals (2+ articles)

Journal of Chemical Physics	7
Journal of the ACS	6
Chemical Science	4
Journal of Theory and Computation	4
ACS Applied Materials & Interfaces	3
Advanced Functional Materials	3
Bitumens Mixtures and Pavements	3
Int'l Journal of Environmental Analytical Chemistry	3
Journal of Physical Chemistry A	3
Journal of Physical Chemistry C	3
ACS Nano	2
Analytical Chemistry	2
Analytical Methods	2
Atomic Spectroscopy	2
Canadian Journal of Chemistry	2
ChemBioChem	2
Chemical Engineering Journal	2
Cold Regions Engineering 2024	2
Japanese Journal of Applied Physics	2
Journal of Materials in Civil Engineering	2
Journal of Nanobiotechnology	2
Journal of Physical Chemistry Letters	2
Organic Electronics	2
Polymers	2
Solid State Nuclear Magnetic Resonance	2
Sustainable Energy and Fuels	2

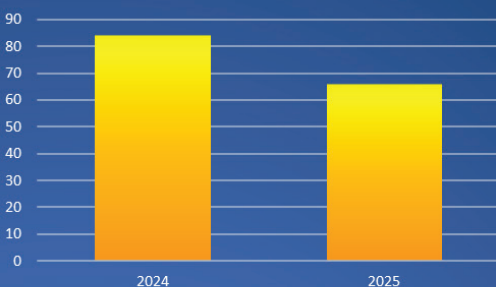
## Co-authors by Country (# of articles)



30 % of articles are open access.

150 publications in 2024-25

## Publications

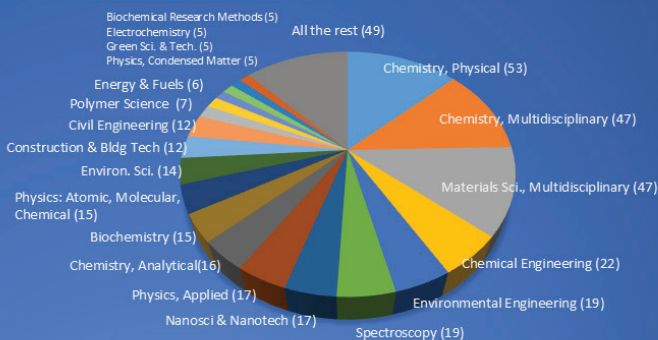


142 Research/Review articles <sup>1</sup>
5 Proceeding papers <sup>1</sup>
2 Editorial materials <sup>1</sup>
1 Correction <sup>1</sup>



**Michael White,**  
Head Engineering and  
Science Librarian

## Web of Science Subject Categories (# of articles)<sup>2</sup>



### Notes

1. Articles can be assigned to more than one document type category.
2. Subject categories are assigned at the journal level. Articles can be assigned to more than one subject category.

# Congratulations!

## Congratulations NSERC and OGS Recipients

*Natural Sciences and Engineering Research Council of Canada (NSERC) – Canada Graduate Scholarship- Doctoral Program*  
– Andrew Laluk (Crudden Group)  
– Anastasia Messina (Crudden Group)

*Natural Sciences and Engineering Research Council of Canada (NSERC) – Canada Graduate Scholarship- Master's Program*  
– Renée Farrell (Crudden Group)

*Ontario Graduate Scholarship Program*  
– Erin Griffiths (Howe Group)  
– Josh Innis (Ross Group)  
– Danica Levesque (Zechel Group)  
– Alex Macdonald (Jessop Group)  
– Dana Nanan (Crudden Group)  
– Olivia Roland (Capicciotti Group)  
– Shauna Schechtel (Bongers Group)

## Congratulations Internal Award Winners

*Queen Elizabeth II Graduate Scholarship in Sciences and Technology (QEII-GSST)*  
– Duncan Rowett (Lee Group)

*R.S. McLaughlin Fellowship*  
– Kayla Elliot (She Group)  
– Christine Hoskin (Stamplecoskie Group)  
– Zoe Lord (Bongers Group)  
– Julia Tropak (Ross Group)  
– Gaurav Verma (Jerkiewicz Group)

*Robert Charles Wallace Award*  
– Daisy Nebel (Capicciotti Group)

*Robert Sutherland Incoming Black Student Award*  
– Brandon Brendel (Crudden Group)

## Class of 2025



**First Column:** Arianna Marchese, Mikaela Coleman, Xinlu Deng, Aviva Gerring; **Second Column:** Abby Bechard, Romona Jack-Douglas, Thomas Zuber; **Third Column:** Arwyn Deultsh, Kristen van Heusden, Belamie Leger; **Fourth Column:** Heidi McIntyre, Ellie Bird, Steven Collins; **Fifth Column:** Kathryn Dove, Victoria Karimy, Kyla Toshack; **Sixth Column:** Ethan Crivellari, Ella Millenaar, Jack Dukart; **Seventh Column:** Sashun Erickson, Celina Bradley, Payton Sproule, Xinyi Chen.



## Speaker Series

We are pleased to announce the continuation of our speaker series into the 2025-2026 academic year with support from the Friends of Chemistry and GreenCentre Canada. We encourage our community to attend when possible. For more information and dates, please visit our website regularly:

<https://www.chem.queensu.ca/about/news-events-seminars#seminarseries>

Dr. Kendal Houk – University of California in Los Angeles (Dr. Stan Brown Lecture)

Dr. Zhenfeng Xi – Peking University (Organic Reactions Inc. Lecture)

Dr. Erin R. Johnson – Dalhousie University (G.B. Frost Memorial Lecture)

