MAR 31, 2019

PROF of the MONTH

Queen's Chemistry Departmental Student Council (DSC)
ISSUE NO 3. | MAR–2019

What aspect of teaching at Queen's is your most favourite?

"Teaching at Queen's allows me to share my excitement and love for the sciences with my students. The moment I get to see a student become moved by a concept or topic is something I always look forward to. It's always fun to see the expression on their faces when something '*clicks*' in their brain!"

What are your current research interests?

"I'm currently involved in numerous projects, but the general theme of my research is uniting the fields of organic and metal chemistry together, particularly in the study of tiny, nanoscopically ordered species. My group synthesizes organic coatings and bonds onto metal surfaces in specific arrangements; we use NMR and other analytical techniques to really understand the source of their properties—their chemical structure. I find this is what really separates the chemists from the biologists—their "obsession" with structures over properties."

What did you want to be when you were growing up? Is chemistry something you every expected to do?

"I grew up in Toronto, and so I spent a great deal of time at the Royal Ontario Museum as a child, which lead me to (at first) want to be an archeologist. I've also considered becoming a medical examiner (I was a big fan of *Quincy*, a medical drama series), and even a journalist (to this day, I love English and enjoy reading). Nevertheless, I've always been intrigued by the sciences and never strayed too far from considering a career that revolved around it. In the end, it was my high school chemistry teacher whose eagerness and enthusiasm helped to solidify my growing passion for chemistry."

DR. C. CRUDDEN

Dr. Crudden is an organic and materials chemist at Queen's University. Born in Ireland, she pursued her pHD at the University of Ottawa before acting as a postdoctoral research fellow at the University of Illinois in the U.S.A. In 2002, she joined Queen's Chemistry Department as a Queen's National Scholar, where she teaches and does research with organometallic molecules.

What do you feel is the most rewarding aspect of a career in research?

"I feel that working with grad students, as well as high-level undergraduates, is the best part of my research career. It is so wonderful for me to see them mature as scientists, make discoveries of their own, and apply the knowledge they gained to their future work. I find that I develop a close relationship with them; they become a part of a scientific community that is always collaborating and sharing new ideas, which is indeed what keeps me coming back."

Why or how do you think your field is of importance to industry? What is unique about your field of study that has led you to pursue a career in it?

"In my opinion, a scientist goes where the results take them. 5 years ago, I would have never predicted that I would be where I am today. I find that when you make a discovery, follow your intuition, and are not afraid to satisfy your scientific curiosities, you will go on the multiple paths—many unexpected, but at the same time, deserving of your attention! My lab's work ranges from developing nano-sized catalysts and corrosion-resistant materials, to the generation of biosensors with applications in third-world countries. We've also developed synthetic techniques which allows us to make previously "inaccessible" molecules, which have immense implications for pharmaceuticals."

What do you feel is the biggest misconception that people have in regards to what you do? Why do you think is the case?

"I definitely feel that the general public has a misconception about scientists—that we are crazed and ancient with electric-white hair (very 'Einstein'-like). However, a lot of the truly impactful work done by the most accomplished scientists (including Albert Einstein) was done when they were young. It is my belief that the desire to challenge the norms and tackle unsolved problems, which is so characteristic of youth culture, is what truly has the power to transform how we see and contribute to the sciences."

What advice do you have to offer to students who are considering a career in research?

"Take an English class! Being able to communicate your ideas and results to others, both scientists and non, plays a critical role in what kind of impact you will have on the world. Most importantly, don't be afraid to broaden your horizons—welcome all kinds of additions to your educational journey—the benefits are endless."

The CHEM DSC thanks Dr. Crudden for her time in participating in 'Prof of the Month'.

CHEM DSC 2018-19

A Year in Review

In the 2018-2019 school year, the Chemistry DSC organized various academic and social events. Our goal is to continuously help students interested and passionate about chemistry succeed in their goals and allow them to socialize with others with similar interests. Our first event of the year was Pool with Profs held at The Grizzly Grill for some friendly competition between undergraduate chemistry students, their TAs and professors. The aim was to provide a positive social environment for the chemistry department and their respective undergraduate majors to interact and spend time with their TAs and favourite professors.

The DSC also organizes academic events for different years to answer any questions about the chemistry program. A 1st year chemistry info night was held for prospective chemistry majors to learn about what their next few years may look like if they chose to major in chemistry and to answer any questions they may encounter along the path of choosing to be a chemistry major. A 4th year thesis information night was also held to help prospective CHEM497 students learn about the course and research opportunities. Previous students spoke about their experiences in working in lab groups and the structure of their thesis to answer any questions third year students may have had.

One of the most anticipated and exciting events of the year was the Chemistry formal held at The Harbour restaurant. The theme was “Glitz and Glamour, A night at Gatsby's” and was open to all years and majors! The night included a dinner, drinks and a dance in which awards were given out to 2nd, 3rd and 4th years based on nominations.