



2017 YEAR IN REVIEW

Dear colleagues, Alumni, and friends of the Department of Chemistry:

As some or many of you no doubt know, I became Chair of the Department of Chemistry this year, returning to the U of A after 7 years in Germany. Perhaps as a result of my moving around, or simply because I am getting older, I'm becoming more nostalgic, and this gives me the motivation to send out this brief recap of 2017 from the Department of Chemistry. You might say this was a last-minute idea, and if I've omitted something that probably deserves mention, I hope you will forgive me – I will try to make this an annual update in the future, and I promise to start earlier next year!

The year 2017 was, without a doubt, fantastic for the Department on many accounts. Before I go further, however, I want to thank two people that have helped to make this year great: Fred West and Jed Harrison. Jed guided the Department for 10 years before stepping down in 2016, and many of the successes that we currently enjoy are the result of his dedication – particularly the renovations that I'll come back to later. When Jed stepped down, and before I could take the reins, Fred gallantly agreed to be interim Chair for the last six months of 2016. I know it took a heavy toll on Fred. So, to Jed and Fred, thank you for everything that you've done to position the Department for the next decades.

Many of the accomplishments that have been achieved in the Department of Chemistry are greatly enhanced by the generous support of friends and alumni. In particular, your contributions will help us offer scholarships to our best undergraduate and graduate students, provide distinguished speakers to our lecture programs, and improve Departmental research infrastructure. To those who have supported the Department of Chemistry, a huge thank you!

Finally, we'd love to hear from you. In future versions of this letter, I'd like to feature events and/or achievements from alumni or those formally affiliated with the Department. So, if you have something to share, pass it on – contact info is on the last page!

All my best wishes for a healthy, safe, and productive 2018!

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COMINGS & GOINGS

NEW FACES

We welcomed to the Department several new additions to our support staff, including **Camille Emdin** (administrative assistant), **Andrew Hillier** (electronics technician), **Reza Poopari** (Physical Chemistry Lab Coordinator), and **Fiona Ngala** (basement storeroom).

After many years as an outstanding sessional teacher for 10x, in the fall of 2017 **Yoram Apelblat** began his new position as Director, Undergraduate General Chemistry Laboratories.

In August, we welcomed our most recent addition to the Faculty, Assistant Professor **Matt Macauley**, who moved to the U of A from the Scripps Research Institute in La Jolla, California. Matt works in the area of chemical glycoimmunology. Our newest faculty hire, **Ran Zhao**, will join the Department in early 2018, working in environmental and atmospheric chemistry, Ran is currently finishing his post doc research at Cal Tech.

PROMOTIONS

Ratmir Derda, who joined the Department in 2011, was promoted to Associate Professor.

Mark McDermott, who has been working tirelessly as the Associate Chair of Graduate studies in the Department of Chemistry, has accepted a promotion to Associate Dean, Graduate Studies for the Faculty of Science, starting in 2018.

RETIREMENTS

While at the same time, 2017 saw the retirement of several long time fixtures of our Department, including **Norman Gee**, Director, Undergraduate General Chemistry Laboratories, **Anna Jordan**, Physical Chemistry Lab Coordinator, and **Bob McDonald**, our X-ray crystallographer. They will most certainly be missed and we wish them all the best!



Andrew Hillier



Reza Poopari



Yoram Apelblat



Matt Macauley



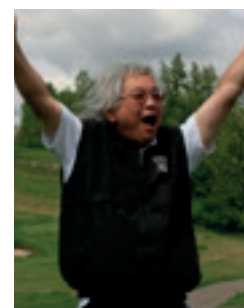
Ran Zhao



Ratmir Derda



Mark McDermott



Norman Gee



Anna Jordan



Bob McDonald

A NEW LOOK!

TEACHING AND RESEARCH INFRASTRUCTURE

Much needed modernization of both teaching and research infrastructure has occurred in 2017. With funding assistance from the federal government, the Faculty of Science (thanks to our Dean Jonathan Schaeffer!), and Facilities and Operations, renovations are ongoing in both Chemistry East and West. In Chem West, the South wing of the 3rd, 4th, and 5th floors, all research labs and offices, were decanted at the end of the fall term 2016 to allow for the initiation of full-scale renovations in January 2017 (this included, for example, the “old” labs and offices of Professors Clive, Harrison, and Lucy). Complete demolition of the space quickly followed and was completed by spring. Construction is on schedule and should be complete by March 31, 2018 of all three floors.

Chem East is also seeing some renewal, which is underway on the 5th floor south. A section of the former Bundle labs is currently undergoing renovations and will soon become the labs of Professor Matt Macauley.



Demolition (left), renovations of Chem West South in progress (centre), and the new look coming in 2018, based on Chem West North (right).

UNDERGRADUATE TEACHING LABS

In Chemistry East, the undergraduate teaching labs on the 1st and 2nd floors are finally being renovated. Beginning at the south end of the wing and moving north, a lab on each floor is being tackled each term starting in the summer 2017. The first two sets of labs have been completed and the third set has been initiated and should be completed by summer 2018.



Undergraduate renovations before (left), and after (right)!

A FEW HIGHLIGHTS FROM 2017

WCUCC

The Western Canadian Undergraduate Chemistry Conference (WCUCC 2017) was hosted by the U of A Chemistry students on May 3–5, 2017. The conference was highlighted by an American Chemical Society (ACS) on-campus event featuring ACS editors and keynote talks by our own faculty members **Jillian Buriak** and **Robert Campbell**. U of A students excelled at the conference and received 10 presentation awards!



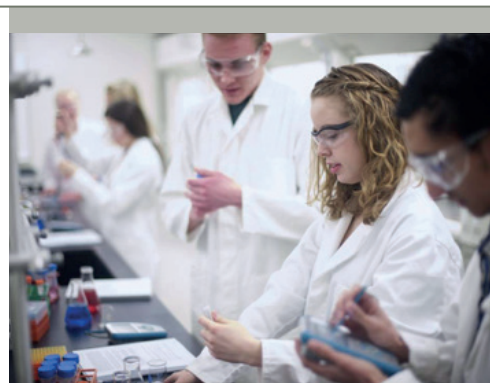
MARGARET-ANN ARMOUR

In 2017, **WISEST** (Women in Scholarship, Engineering, Science & Technology) celebrated its 35th anniversary! It's hard to believe that since 1982 WISEST has been committed to the attraction, retention and advancement of women in roles non-traditional for their gender. Vital to this mandate has been the work of our own **Margaret-Ann Armour**. And speaking of **Margaret-Ann Armour**, it is with great pride that she was honored by the opening of a new school in the Edmonton Public School System for the 2016–2017 year that bears her name, the **Dr. Margaret-Ann Armour School** – how cool is that!



UNDERGRADUATE RESEARCH

The year 2017 also brought a new research course to our undergraduate curriculum, one that offers an additional opportunity for students to gain valuable research experience. This fall, **CHEM 399** was introduced, which bridges the gap between CHEM 299 and CHEM 401. CHEM 399 is designed to be a “research only” course, and there are no assignments – the focus is solely on getting our third-year students into the lab for one of their first research experiences.



iGEM

In 2017, the UAlberta **iGEM** (International Genetically Engineered Machine) competition team was established as a joint effort between the Faculties of Science and Engineering. This team of 9 undergraduates was led by PIs **Robert Campbell** and **Dominic Sauvageau** (Engineering), and graduate student mentor, **Rochelin Dalangin**.



The team's project focussed on developing a continuous directed evolution-based to evolve stronger protein-protein interactions that could serve as leads for the development of protein-based therapeutics. The team put in a tremendous effort and won a Gold Medal at the annual **iGEM** competition and Jamboree, held in Boston during November.



FACULTY AND STAFF AWARDS 2017



Dennis Hall
 Elected to the Royal Society of Canada



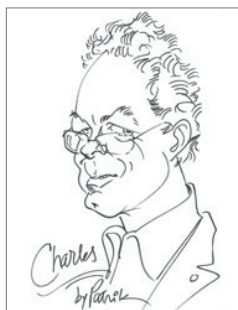
Jillian Buriak
 EWR Steacie Award



Ratmir Derda
 Martha Cook Piper Prize
 David Gin Young Investigator Award,
 American Chemical Society Carbohydrate Chemistry Division



Todd Lowary
 The University Cup



Chuck Lucy
 CIC Award for Chemical Education



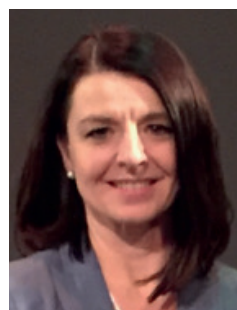
Eric Rivard
 Alexander von Humboldt Fellowship



Jon Veinot
 CSC Award for Research Excellence in Materials
 Faculty of Science Commercialization Fellowship



Rick McCreery
 Faculty of Science Commercialization Fellowship



Kerrie Johnston
 University of Alberta APO Award



(from left to right)

Juli Gibbs
 Faculty of Science Research Award

Christie McDermott
 Faculty of Science Service Award

Mariusz Klobukowski
 Faculty of Science Excellent Teaching Award

CONGRATULATIONS

STUDENT AWARDS 2017

DEPARTMENT OF CHEMISTRY GOLD MEDAL

- Qiming Shen

ANDREW STEWART MEMORIAL GRADUATE PRIZE

- Patrick Moon
- Cong Jin
- Xiaobin Mo
- Amin Morteza Najarian

IZAACK WALTON KILLAM MEMORIAL SCHOLARSHIP

- Patrick Moon

MARGARET THOMPSON MEMORIAL PRIZE IN CHEMISTRY

- Hwee-Ting Ang

ROBERT SWINDLEHURST GRADUATE BOOK PRIZE IN CHEMISTRY

- Robin Abel

DR. R. NORMAN AND MAGDA KEMENY JONES TRAVEL AWARD

- Shuang Zhao

GILEAD ALBERTA GRADUATE AWARD OF EXCELLENCE IN ORGANIC CHEMISTRY

- Sicheng Lin

WALTER AND PHYLLIS HARRIS GRADUATE SCHOLARSHIP IN CHEMISTRY

- Qiming Shen

MARSHALL SYSKA CHEMISTRY GRADUATE SCHOLARSHIP

- Casey Rusin
- Vitor Silva Cunha
- Keisean Stevenson
- V. Narasimharao Thota
- Hanh-Thuc Tran
- Eiman Osman

JEAN COOLEY GRADUATE SCHOLARSHIP IN ANALYTICAL CHEMISTRY

- Maya Abou-Ghanem
- Rochelin Dalangin

NOVARTIS PHARMACEUTICALS CANADA INC. GRADUATE SCHOLARSHIP

- Khyati Gohil

OSMAN JAMES WALKER MEMORIAL SCHOLARSHIP

- Qiming Shen



2016 Gilead Alberta Graduate Award of Excellence in Organic Chemistry awardees, **Parick Moon** (left, centre) and **Burcin Akgun** (right, centre), with Prof. Dean Toste (left) and Dr. Stacy Bremner (right), at the Gilead Lecture in Organic Chemistry on September 26, 2017.

IN MEMORIAM

WE HONOR THE PASSING OF PROFESSOR RON CAVELL

Lastly, we take a minute to reflect. The year 2017 also marked the passing of **Professor Ron Cavell**, on November 25, 2017. Ron joined the Department of Chemistry at the University of Alberta in 1964 as an Assistant Professor, retiring as a Full Professor in 2004. Ron's research at the U of A began with the synthetic chemistry of phosphorus, nitrogen and sulfur derivatives and the interactions of these compounds with transition metals. In the latter part of his career, Ron continued his synthetic studies in phosphorus chemistry, developing, for example a series of electron-rich bis(imino-phosphorano)methandiide pincer ligands capable of complexing a wide range of metals throughout the periodic table. Ron was a founding member of the Canadian Institute for Synchrotron Radiation, the organization that developed the Canadian Light Source (CLS) facility from concept through design and development to construction. Ron served as president of the Institute from 1999 to 2006, and his influence was instrumental in bringing the CLS facility to Saskatchewan. Ron's broad chemistry interests, combined with his passion for the CLS, cemented his legacy as a talented and imaginative researcher having wide-ranging impact.



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