

Fall 2002  
Issue No. 10



# QChem Chronicles

[www.chem.queensu.ca](http://www.chem.queensu.ca)

## Official Opening of Chernoff Hall *by Stan Brown*

The official opening of Chernoff Hall will be on Friday, November 1st, with additional festivities to continue on November 2nd, 2002. The November 1st official ceremony will commence at 4:30 p.m. in the foyer of the building. There will be several invited guests, university officials and dignitaries (including the Chernoff family after whom this building is named), representatives from the government, the Ontario Superbuild Corporation and the Canada Foundation for Innovation. A ribbon cutting ceremony will follow this event, after which some limited tours of the new building are planned. On Saturday morning, November 2nd, the Department of Chemistry will host a public event to which all members of the public and Queen's community

are invited. Commencing at 10:00 a.m., a two-hour mini-symposium, featuring two internationally recognized chemists, will take place in the new 250-seat lecture hall adjoining Chernoff Hall. The speakers, Professor Ronald Breslow from Columbia University in New York, and Professor Mary-Ann White from Dalhousie University will give talks of public interest concerning the future of chemistry, including teaching and research in the university setting. Following the mini-symposium there will be conducted tours of the building between 12:30 and 4:00 p.m. so that members of the community can see the facilities. The tours will end in the fourth-floor atrium lounge where refreshments will be served.

# QChem Chronicles

Department of Chemistry, Queen's University, Kingston, Ontario, Canada

Fall 2002 Issue No. 10

EDITORS: Donal Macartney and Maureen Brown

## Head's Message

by David Wardlaw

In this year's message from the Head, I wanted something that would provide readers with a perspective on the Department that is rarely available to those who now see it only through alumni publications, Homecoming Weekend, or through the eyes of off-spring attending Queen's. It is tempting, sometimes convenient, to think of "The Department" as an inanimate entity. It is of course exactly the opposite. People are the most valuable commodity in any enterprise. The theme of my message is simply "people power". Rather than to diminish any of the news items and individuals appearing here, the purpose is instead to reveal the surprisingly large numbers of people who comprise "The Department" and to applaud their day-to-day effort. As at summer 2002, there are 186 members of the Department of Chemistry, consisting of 24 faculty, 10 technical support staff, 8 administrative staff, 7 adjunct faculty, 15 emeritus faculty, 91 graduate students, 24 postdoctoral fellows, and 7 research associates. Collectively they are the backbone on which

everything is built. Everything the Department does, is, or becomes, including individual achievement, relies at some level on this network of people doing their jobs well and interacting positively with their fellow department members. The steady progress that has been made since 1995 towards our goals of being one of the top-ranked departments for chemical research in Canada and a leader in chemical education is largely attributable to the hard work, cooperation, and commitment to excellence of these 186 people. It is from this background of ongoing collective success that the more obvious, more easily quantifiable, and more "newsworthy" indicators of success punctuate the annual cycle of reporting on departmental activities. One of the most enjoyable aspects of leading this department is the response of individuals or groups to requests to take on tasks aimed at improving the environment for teaching, research, or general operation. Keep up the good work!

## Chemistry Building Project

By Rick Boswell

Chernoff Hall is on track for occupancy as of July 2002. The Undergraduate program was moved during the week of June 17, allowing two months of setup by our technical staff to welcome the first group of Undergraduates to our new home. The move went smoothly and the unpacking continues as of this writing. The rest of the Department moved during the weeks of July 8 and 15. The enthusiasm and excitement of relocation is infectious and the hard work continues as we adapt to our new home and adjust to this state-of-the-art facility. I want to thank all of those who have made this a rewarding experience so far. The staff of the Department have been incredible and have pitched in above and beyond to help with the monumental task of organizing and expediting many issues related to the logistics of moving. The Faculty members and their groups were very cooperative (and patient!!) during this process. I also want to thank the contractor, M. Sullivan & Son, and all the sub-trades, who have worked very hard to deliver to us a remarkable facility that we will be proud of for many years to come. To all the Chemistry alumni, we would like to extend an open invitation to visit us in our new facility!

## ALUMNI WEEKEND

by Laurie Rushworth

This past Alumni Weekend saw the Department of Chemistry host a catered reception providing a wonderful opportunity to catch up with old friends and meet some of our newer Faculty members. This year is a new and exciting one and we look forward to sharing our experiences with you at the next reception, to be held September 27 and 28, 2002. We would love for all of you to come and visit our new home in Chernoff Hall and see displays of the Department and its Faculty over the years. As well as having a

catered light buffet and guided tours, we will also have faculty and current undergraduate students on hand to reminisce and discuss what's new in Chemistry. We have a special request for our alumni: dust off some old memorabilia and bring it to Alumni Weekend. Additional items will be accepted over the following month. These memorabilia will be on display at the Official Opening of Chernoff Hall on Nov. 1, 2002. Selected items will be placed in the Chernoff Hall time capsule.

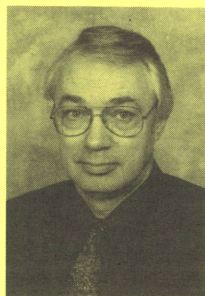
## New Head of Department

Dr. David Wardlaw was appointed Head of Chemistry on January 1, 2002 for a five and a half year term ending June 30, 2007. David previously served as Associate Head and two 6-month terms as Acting Head. He succeeds Dr. Stan Brown who served as Head from July 1995 to December 2001. The Department is indebted to Stan for his tireless and successful efforts in advancing its interests and stature within Queen's and on a national scale.

## AWARDS TO FACULTY

### MICHAEL BAIRD

received the 2002 Catalysis Award from the Chemical Institute of Canada (CIC).



This award is presented biennially to an individual who, while resident in Canada, has made a distinguished contribution to the field of catalysis. Dr. Baird's research over the years has revolved around

organotransition metal chemistry and catalysis, notably mechanisms of catalytic processes, homogeneous catalysis of olefin hydrogenation, hydroformylation and polymerization and heterogeneous catalysis of CO and CO<sub>2</sub> hydrogenation.

### Retirements and Departures

Three long serving members of the Department have recently taken early retirement: **Dr. Brian Hunter** (29 years as faculty member), **Mr. David Dunton** (> 20 years as stores-keeper), and **Mr. Dennis Hannah** (> 30 years as machinist). Brian has made valuable contributions to the educational careers of thousands of undergraduate and hundreds of graduate students. David and Dennis have made valuable contributions to the operation of the Department. The dedication and service of these three individuals to the Department and the University are appreciated by the faculty, staff, and students. We wish them a healthy and productive retirement.

**Dr. Don Weaver** left the Department last summer to take a prestigious Canada Research Chair in the Department of Chemistry at Dalhousie University, effective September 2001. Don made important contributions to the Department's research program and his expertise in medicinal chemistry has been missed. We wish Don all the best in his new academic setting.

### SUNING WANG

was elected a Fellow of the Chemical Institute of Canada (CIC) in 2002. She is



best known for her extensive contributions to materials science. Recently, her group made impressive achievements in the development of new luminescent materials for applications in

electroluminescent displays and sensor technology. Dr. Wang was also selected as the winner of the 2001 Award of Merit of The Federation of Chinese Canadian Professionals (Ontario) Education Foundation, to recognize her outstanding achievements.

### TEACHING AWARD

Congratulations to **Drs. Michael Baird and Walter Szarek**, who jointly received the Teaching Excellence in Chemistry Award from the graduating class of 2002.

Congratulations to **Bill Newstead** who won two teaching awards in 2001-2002: the 1st year instructor winner of the Golden Apple, and the Winter term recipient of the Applied Science First Year Teaching and Learning Award.

### OTHER DISTINCTIONS

A group of seven faculty (**Mike Baird, Stan Brown, Cathy Crudden, Richard Oleschuk, Vic Snieckus, Walt Szarek, and Greg Thatcher**) obtained \$3.73 million worth of funding from the Canadian Foundation of Innovation in January 2002 for their project "Accelerating New Drug Discovery through Design, Synthesis, and Activity Evaluation." With matching funding from various sources the total project budget is \$9.34 million over 5 years.

**Diane Beauchemin** has been elected Vice-President of the Spectroscopy Society of Canada and received their Distinguished Service Award.

## NEW FACULTY

*The Department extends a warm welcome to three new faculty:*

**Gregory Jerkiewicz** (Ph.D Ottawa) joined us in June 2002 as an Associate Professor. University of Sherbrooke as a research associate in 1991, and became an Assistant Professor in 1992 and an Associate Professor with tenure in 1997. Gregory's research and teaching interests are in the areas of physical and analytical chemistry with an emphasis on electrochemical surface and materials science. He received the 1997 Electrochemistry Award of La Société Française de Chimie (the first time ever awarded to a foreign researcher).

**Cathleen Crudden** (Ph.D Ottawa) joined us in August 2002 as an Associate Professor and a Queen's National Scholar. In 1996 Cathy joined the faculty at the University of New Brunswick where she began a research program directed towards the use of metal catalyzed reactions in synthesis and the development of unique supports for organic chemistry and catalysis. She has won a Research and Innovation award from the Research Corporation and a University of New Brunswick merit award. Cathleen was promoted to Associate Professor with tenure in 2000, and was made a University Research Professor in 2001.

**Bill Newstead** joined the Chemistry Department in July 2002 for a three-year term as a Special Term Adjunct, a new position designed to help the University cope with the double cohort enrolment bulge. Bill is a retired secondary school science teacher who taught for 30 years in the greater Kingston area, serving 22 years as head of science at both Frontenac Secondary School and Sydenham High School. Bill obtained his B.Sc. (Engineering) and M.Sc. (Engineering) degrees from Queen's and for the past two academic years has taught at Queen's as a sessional adjunct. In his new position, Bill has teaching duties and numerous related responsibilities in first year chemistry for Applied Science students.

## STUDENT SCHOLARSHIPS AND PRIZES

*Congratulations to the following recipients of scholarships and prizes*

At the 2001 Canadian Society for Chemistry conference David Kreller won the best poster prize in the Analytical Chemistry section and Constantin Romanescu, Jennifer Clarke and Sergei Manzhos shared the best poster prize in the Physical Chemistry section.

Alison Holliday received the best poster award from the Spectroscopy Society of Canada at the 48th International Conference on Analytical Sciences and Spectroscopy in May 2002.

The winners of the **2002 A.C. Neish prizes** for their 4th year research project oral presentations were: Jake Magolan (1st), Emily Mitchell (2nd) and Stephen Hennigar (3rd).

**NSERC Undergraduate Student Research Awards:** Alexander Wright, Megan Palmer, Yoonjung Huh, Andrew Carrier, Sheldon Lyn, James Laughren, Christopher Smith, Kristen Hamilton, Lisa Thorne, Randall Harris, Lauren Gerard, Emily Mitchell, Laurie Brown and Michael Motala.

**2002 Pfizer Summer Undergraduate Research Fellowship** Michelle Chang

**NSERC Postgraduate Scholarships**  
Adrian Andriescu, Lisa Thorne, Graham Gibson, Chris Hartley, Stefanie Smith, Corey Seward, Anthony Lee, John Brownie

**NSERC Postdoctoral Fellowships**  
Ken Maly, Allyson Campbell

*The following awards were given at the Spring 2002 Convocation ceremonies:*

**Mathematics and Physical Sciences Outstanding Thesis** – Stephen MacNeil  
**Medal in Chemistry** – Lisa Thorne  
**Medal in Chemistry and Mathematics** – Erin Cressman

**The Society of Chemical Industry Student Merit Award in Chemistry** – Kristin Hamilton

**Departmental Honour Roll** (graduating students with a first-class average in Chemistry courses): Jennifer Cottman, Erin Cressman, Marlene Hollinger, Alison Lee, Kristin Hamilton, Jakob Margolan, and Lisa Thorne

Dalia Abdallah won the **2002 William P. Doolan Prize** in Chemistry for the Best 1st year Teaching Assistant, while Eric Antcil won the distinction of Best Tutorial TA for CHEM 281/282 and Josephine Tsang the Best Lab TA for CHEM 281/282.

### *We've heard from...*

**Dennis Gillespie** has spent 34 years teaching Chemistry and Physics and being a school Principal  
(pam.gillespie@sympatico.ca)

**Nathalie Pankiw** presently Supervisor for the Quality Control department for the Classical Chemistry laboratory for MDS Pharma Sciences, Blainville (Quebec) (pankiw@total.net)

**Wendy Keeney-Kennicutt** Associate Director of the First Year Chemistry program at Texas A&M University. Received Texas A&M Association of Former Students Distinguished Achievement Award in Teaching, 2001 (kennicutt@mail.chem.tamu.edu)

**Eric Aubanel** is an Assistant Professor in Computer Science at the University of New Brunswick.

**David W. Thompson** has joined the Department of Chemistry of the Memorial University of Newfoundland as an Assistant Professor.

*Please write and let us know what's new with you and what is your preferred way for us to stay in touch with you....*

## Departmental Student Council (DSC)

by James Anderson and Emily Mitchell

This year the DSC organized another year of exciting events, increasing awareness and promoting social interactions between chemistry students and professors. Students and faculty were welcomed back to another academic year in September with the Annual Fall BBQ. November also proved to be a busy month for the DSC: a Departmental Wine and Cheese event was held at the Queen's Pub, along with a Chemistry Pub Crawl to varied establishments in the Kingston area. In addition the DSC supported the weekly departmental seminars throughout the year, providing refreshments, and were also involved in judging an elementary school science fair. A successful year was concluded with the Annual Chemistry Banquet for students and faculty in the Chemistry and Engineering Chemistry programs.

## Engineering Chemistry Club by Stacey Cirtwill

This year was busy and packed with excitement for Engineering Chemistry students. We started out the year with our friends from Chemistry at the Welcome Back BBQ. The annual Chemical Engineering/Engineering Chemistry Barbeque, welcoming all of our new 2nd year students, was also a huge success. A major event for us this year was a field trip to Halifax in October to attend the Canadian Chemical Engineering conference, providing an excellent opportunity to meet other students from across the

country and learn about emerging fields of research. We also found time to sightsee and tour the Keith's Brewery. This year we had a spring Welcome to Chemical Engineering/Engineering Chemistry Barbeque that gave students in 1st year a chance to meet the upper year students they will be joining in the Chemical Engineering/Engineering Chemistry department. We brought the year to a close with an informal Wine and Cheese party at the Queen's Pub.

### Recollections and Reminiscences

A second printing of the book "Recollections and Reminiscences of the Life of the Chemistry Department," consisting of faculty members' personal accounts of the last half-century, and published last fall, is planned. Details about purchasing the book will be listed shortly on the Chemistry website.

# Queen's Chemistry Innovation Council

by Doug Puffer

In the Fall of 2000 a group of Queen's alumni, the Queen's Chemistry Innovation Council (QCIC for short) met for the first time over a common cause, the future of chemistry education at Queen's. They identified four legs of a program that would ensure that Queen's retained its quality reputation and became the leader among Canadian University chemistry departments: a new building, a new curriculum, updated undergraduate lab facilities, and adequate operating revenue. The members established some basic objectives and adopted the terms of reference for voluntary service to the Department of Chemistry. Their goal is to develop solid relationships with global chemicals and materials based industries, to ensure that Queen's programs in chemistry are innovative, are aligned with the foreseeable needs of industry, and are appropriately funded (see our webpage at [www.chem.queensu.ca/qcic](http://www.chem.queensu.ca/qcic) for full details).

In May 2002 Department Head David Wardlaw and group reported to the

QCIC that the new building would be ready this summer with \$3 million left to raise from private gifts and that the new curriculum would begin in Fall 2003. An integrated and interdisciplinary approach to modern experimental chemistry will be emphasized, but there is still the need to upgrade equipment in the undergraduate labs in order to carry out the new experiments. On the good news front the Davos Chemical Corporation Challenge appeal raised about \$64,000 over the last 8 months and the money has been allocated for new and upgraded equipment for new experiments in the physical chemistry undergraduate lab. Additionally, Bayer Inc. (Rubber Division) has funded the Distinguished Lectures in Chemistry and Dow Chemical Corp. has funded the weekly seminar series in Chemistry for the next 3 years.

At many universities, including Queen's, philanthropy appears to be filling in where government shortfalls have created a void. Private support for the Department of Chemistry has come from

a wide variety of sources. Annual gifts and Class gifts help to fund the immediate and ongoing needs of the department and the money is spent where it will have the greatest impact for students. Major gifts through the Queen's Campaign have allowed us to build Chernoff Hall, to set up endowed funds, and to significantly enhance the overall learning experience for students. Planned gifts allow people to create a legacy for the future of chemistry at Queen's and in one specific case, has helped to build the administration wing of Chernoff Hall through the creation of a charitable trust. To all those who have supported chemistry, you have our heartfelt thanks. For the rest of you who have been thinking about giving to chemistry I hope you now know that all gifts are important and will be used effectively.

Please contact: Doug Puffer, Senior Planned Giving Officer, Department of Development, Queen's University. (613) 533-2060 or in U.S.A. and Canada (800) 267-7837 ext. 77444

[www.chem.queensu.ca](http://www.chem.queensu.ca)

