Q-CHeM CHRONICLES

Queen's UNIVERSITY

AUGUST 2006

A Fond Farewell

At the beginning of April, I announced to the Department that I had accepted the position of Dean of Science at the University of Western Ontario, effective July 1, 2006. I am writing this note several days after having begun my employment at Western as the Dean-elect for the month of June. In the interceding two months I have had the time and perspective to reflect on my 22-year academic career at Queen's. I have been asked to share some of these thoughts with the readers of QChem Chronicles.

I arrived at Queen's in 1984 as an Assistant Professor, fresh from a stimulating and productive postdoctoral fellowship at the California Institute of Technology in Pasadena. In 1989, I was granted tenure and promoted to Associate Professor, and in 1994 became a full Professor. I served as Head for four and a half years from January 2002 to May 2006 and Acting Head for one year prior to the Headship. The people, the culture, and the infrastructure of Queen's have played a prominent role in my development as a teacher, a researcher, an academic leader, and a person. My family and I feel very fortunate to have spent two decades in Kingston. Our children grew up here and this community has had a positive influence on their development as individuals and citizens.

It is important to me that you know that my decision to change jobs and institutions is entirely positive and in no way reflects any discontent in my dual roles as a faculty member and Head in this Department. The Deanship is a challenge and an opportunity that comes at the right time in my academic career. I have had the privilege of a wonderful academic career at Queen's. I am leaving a fabulous Department that is strong in every area and that has a superb cohort of undergraduates, graduate students, postdoctoral fellows, research associates, staff, and faculty. As the Head I had the unique opportunity and the distinct pleasure to meet numerous alumni and to work closely with members of the Queen's Chemistry Innovation Council. Every morning when I entered Chernoff Hall I felt invigorated and motivated. I loved coming to work in this Department. I shall miss this place and its people enormously.

With the appointment of Bob Lemieux as Acting Head, I leave Queen's being fully confident that the Department has outstanding leadership. Bob has been a superb Associate Head for the past four years and has transitioned smoothly into the Headship. The Department is in the capable hands of someone who has a vision for the future of the Department but who also knows how to manage ongoing operations.

Dr. David Wardlaw

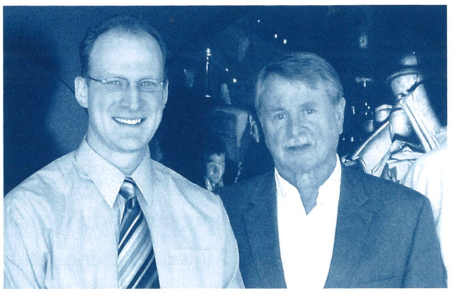
Q-CHeM CHRONICLES

Queen's UNIVERSITY

AUGUST 2006

Chemistry Faculty Impresses...

The Department of Chemistry is pleased to announce that **Dr. Richard Oleschuk** is the recipient of a 2006 Chancellor's Research Award. This Queen's award provides junior researchers with demonstrated high research potential the financial means to achieve significant impact in their disciplines, and helps strengthen their potential to receive similar support and recognition at the national and/or provincial level. Richard's research is in the area of microfluidics, and focuses on the development of lab-on-a-chip devices coupled with mass spectrometry. "Lab-on-a-chip" technologies have the potential to provide rapid clinical diagnosis at the bedside for a variety of diseases and, coupled with the universal detector (mass spectrometry), have the potential to revolutionalize the area of analytical and bioanalytical chemistry. Richard focuses on microfluidic devices constructed from different polymeric materials in order to produce low cost devices and then modifying the surfaces of these devices to allow for a variety of different applications. This has garnered much attention from industry and he is currently commercializing some aspects of his research. In order to accomplish such a goal, Richard's scientific efforts have become truly interdisciplinary and straddle the areas of microfabrication, materials and surface chemistry, analytical and bioanalytical chemistry and biology.



Dr. Richard Oleschuk and Dr. Stan Brown

The Chemistry Department congratulates **Dr. Stan Brown** on being awarded a Killam Research Fellowship. This is the second Killam Award Dr. Brown has received. The first Killam Award was received in 1993 while he was a faculty member at the University of Alberta. The purpose of a Killam Research Fellowship is to provide two years of release time from teaching and administrative duties to allow an individual scholar to pursue independent research. Stan won the fellowship for his work in studying how pesticides and chemical warfare agents can be broken down through chemical reactions. Stan's research looks at ways to speed up the decomposition of such agents, both in bulk and where they have been sprayed or spilled, leaving as little toxic waste or byproduct at the end of the process as possible. He has developed a metal-catalyzed chemical reaction using an alcohol based solution to achieve rapid chemical breakdown of these toxic substances and will continue improving on the concept through further experimentation Governmental agencies, including the U.S. Army Research Office, are very interested in the results of his work.

An Undergraduate Success Story!

Dr. Din Lal and Bonnie Lampe

We at Gamble Technologies Limited are pleased to announce that we have hired Bonnie Lampe as the newest member to our family. The search for an associate with the desired qualities to join GTL proved to be extremely difficult and took a total of four years to complete. For one, the search was difficult because the credentials required were a person with a degree in Chemistry, Physics or Engineering, and there were very few graduates that were interested in pursuing a career outside their current discipline. Second, "We were in search of a personality". This implied a pleasant individual, an individual with empathy towards a customer and most importantly a person with the ability to listen. Bonnie Lampe proved to be an excellent candidate.

Bonnie, unlike most of her classmates, had a desire to pursue a career in sales and marketing and desired to do so in a way that would complement her degree in chemistry. There were several aspects of joining GTL that appealed to Bonnie. For one, she was excited about the fact that GTL offered such a broad base of instrumentation with cutting edge technology. Second, Bonnie, although not a researcher at heart, knew that a career with GTL would truly help her to make a difference in the scientific community. Lastly, and likely the most prevalent reason why Bonnie chose to work for GTL was the amazing rapport amoung all of the employees of GTL. Since day one, Bonnie has had a true feeling of being part of the GTL family.

GambleTechnologies Limited (GTL) is a wholly owned Canadian corporation providing instrumentation solutions in Nuclear and Radiation Measurements, Optical Spectroscopy and Materials Characterisation. The company is proud to distribute the products of Advanced Measurement Technology (ORTEC, Princeton Applied Research and Signal Recovery); Thermo Electron Radiation Measurement and Protection; Andor Technology; IR-Microsystems; Ocean Optics; Sciencetech; and surface science solutions from Mikropack and Uniscan Ltd. We have sales offices in Quebec City, Ottawa, Calgary and Vancouver and our distribution facility in Mississauga.

2005 – 2006 DEPARTMENTAL HIGHLIGHTS

June 2005

Article on QCIC in Gazette

Gregory Jerkiewicz becomes a Member of the Board of Directors of the Canadian Society for Chemistry (CSC) and is appointed as Director Awards for a three year term commencing June 2005.

July 2005

Anne Petitjean and Derek Pratt take up their new faculty positions at Queen's.

Suning Wang appointed to NSERC Grant Selection Committee 24 for a three-year term commencing July 1, 2005.

Hugh Horton appointed to NSERC Scholarships & Fellowships Selection Committee for a three-year term commencing July 1, 2005.

September 2005

Renewal of Weekly Seminar Series sponsored by Dow Chemical @ $15,000 per year and Lanxess @ $20,000 per year, each for three-year period (year 1 of 3).

TA Teaching Awards: In order to promote and recognize excellence in teaching by Teaching Assistants (TAs) in Chemistry, the Department has added six (6) new TA awards. Previously there was only one award funded from an endowment honoring Paddy Doolan, a chemical technologist and lecture demonstration assistant extraordinaire in this department from the 1920's to the 1950's. The set of seven awards provides comprehensive coverage both tutorial style and laboratory teaching in 1st, 2nd, and 3rd years. Each TA award is $500. Awards for the 2004-05 academic year were presented at the TA training day Sept. 9, 2005:

Merck Frosst Canada TA Award: Alison Holliday

Merck Frosst Canada TA Award: Krista Laugesan

William Patrick Doolan Prize: Goran Stojcevic

Fisher Scientific TA Award: Dalia Abdallah

David Thomas TA Award: Owen Clarkin

Varian Canada TA Award: Dominique Turcotte

Din Lal TA Award: Andrew Munro

The following Chemistry TAs were presented with Certificates in University Teaching and Learning: Robyn Gatreau, Rodica Ghenea, Alison Holliday, Saroja Hettiarachchi, Chaoyang Huang, Dominique Turcotte, Kalam Mir, Ruibing Wang, Vivian Wang, Ian Wyman & Lina Yuang.

Chirstopher Knapper Teaching Assistant Awards were presented by the Alma Mater Society to Ian Wyman & Eagranie Yuh

October 2005

Peter Loock receives the Smiths Detection Spectroscopy Award from the Canadian Society for Analytical Sciences and Spectroscopy in Quebec City on Oct. 11, 2005.

Annual meeting of Queen's Chemistry Innovation Council

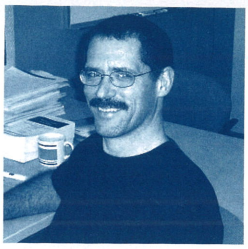
2nd Annual Careers Luncheon for undergraduate and graduate students

Diane Beauchemin receives certificate for completion of the Focus on Foundations Program at the Centre for Teaching and Learning. Diane is the 1st person at Queen's to complete all the requirements for this program.

The ultra-high vacuum (UHV) surface analysis system is ready for use. The system was purchased second hand last winter by a consortium of researchers in Chemistry and other departments with financial contributions from the departments, the Office of VP Research, and the Faculty of Arts & Science. The purchase was organized by Gregory Jerkiewicz with assistance from David Wardlaw. Gregory is the facility manager.

November 2005

Victor Snieckus is selected as the Novartis Chemistry Lecturer for 2005-06. Vic will deliver lectures at five Novartis sites around the world in the coming months.



Message from the Acting Head

BY BOB LEMIEUX

It is with mixed feelings that I take the helm of the Chemistry Department as Acting Head. On the one hand, I am thrilled to take on this new role, and to have the opportunity to lead an outstanding group of faculty, students and staff as we steadily progress towards our goal of becoming one of the leaders in undergraduate and graduate chemical education in Canada. But, on the other hand, I will miss working with Dave Wardlaw, who was an outstanding Department Head and role model. After four years as Associate Head, I learned a great deal from Dave about the Headship, and how to create a positive environment that promotes excellence in teaching and research. Dave's appointment as Dean of Science at the University of Western Ontario is a testament of his leadership excellence, and I wish him the very best in his new role.

Dave leaves the Chemistry Department in a position of strength. During his tenure as Head, he spearheaded the hiring of several outstanding new faculty members, including Canada Research Chairs in Bioorganic and Physical Chemistry, Chiral Photonics (joint with Physics), Green Chemistry, and Materials Science, and one Queen's National Scholar. In addition, we are in the final stage of negotiations with a nominee for a Canada Research Chair in Computational Chemistry. Our undergraduate and graduate enrolments have grown in numbers and quality, and our state-of-the-art research and teaching infrastructure remains the envy of Canadian Chemistry departments. So, it is indeed with a sense of excitement that I take over from Dave; I have big shoes to fill, and I intend to work hard to achieve the ambitious goals we, as a department, have set towards becoming one of the top Chemistry departments in Canada. In doing so, we will rely on the advice of the Queen's Chemistry Innovation Council, which has become a very effective organization for the promotion of the Department and the enhancement of its activities. In addition, we always welcome the input of our alumni, and I hope to meet many of you at Homecoming this fall. Your generous financial support is a key component of our departmental development, and I hope you will continue to support Queen's Chemistry in the future.

A faculty member moves on...

Dr. Becke will be leaving the Chemistry Department after 22 years with Queen's University. We congratulate Axel, one of seven outstanding Canadian researchers to be named a new Killam Research Fellow for 2005. Axel heads to Dalhousie University to take up his position as Killam Chair in Computational Chemistry on July 1st, 2006. He will take a two year leave of all teaching and administrative responsibilities to concentrate on his current research.

He is internationally renowned for his research in the field of computational chemistry: the simulation of molecular structures, energies, and chemical reactions by computer calculations. His best-known work, published in 1993, was the most-cited Canadian paper of the 1990s, and the second-most-cited in the world. Axel is a leader in the development of a relatively new approach to computational chemistry known as density-functional theory. This theory allows scientists to perform computer simulations on much larger problems than are possible with other approaches, opening the way to exciting new applications in chemistry, physics, materials science, and biology. Best of luck Axel!

Message from the Manager

BY RICK BOSWELL

Chemistry has had, yet again, another very busy year. In 2005/2006 the department underwent a large renovation in the undergraduate lab area in order to accommodate CHEM 397, a new program that integrates all of the third year labs into one program. This renovation involved the addition of 4 fume hoods and the modification to the bench layouts in what used to be the analytical undergraduate lab. The renovations were completed over the summer and the program went ahead as planned in September. The project consolidated all of the lab space required for 397 and freed up significant space in adjacent lab areas, thus allowing for easier scheduling with the increased enrolment numbers.

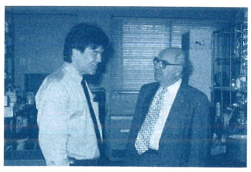
On the research side of the house, the third floor underwent some extensive renovations as well. A new lab was created for Dr. Jerkiewicz, and new space was created for Dr. Buncel. These modifications were necessitated by the addition of new faculty to the Department. As part of our ongoing efforts to keep a handle on space allocations, modifications to the labs will become a norm in order to ensure that we keep research programs together rather than stratifying similar programs over three floors.

This year will also see further renovations as we consolidate newer faculty, and these renovations will for the most part be confined to the 5th floor. One major addition will be of two new fume hoods to Dr. Crudden's lab. The addition of Dr. Nunzi will see some modifications on the third floor in order to accommodate his laser lab, and we are installing a new cold room for use by the researchers in the Department who are involved in doing protein work.

The Department Staff has also undergone some changes in the past year. In recognition of the importance of the roles that development work and events organization play in the day to day activities in the Department, a new position has been created that is dedicated to each of those functions. Diane Sullivan has assumed those responsibilities, starting on June 1 of this year. Barb Armstrong has assumed the responsibilities as the Administrative Secretary and will work directly for both the Head and myself. Kathy DeBenedetti will look after the undergraduate portfolio, and Annette Keyes remains as the Graduate Assistant. There will no longer be a traditional 'receptionist' role.

In addition to the above changes, the Department was given permission to recruit and hire a new staff member who will take over the stores operation. We would like to welcome Susan Thomson-LaFosse to this position. Pam Bandy-Dafoe will now be able to concentrate more on the financial end of the Department's operations. With the increased level of staffing, I am anticipating that we will be able to grow stores to better meet the needs of the research and undergraduate communities.

Special announcement



The Department of Chemistry is pleased to announce that Dr. Victor Snieckus has been appointed the Bader Chair Emeritus for a three-year term effective July 1, 2006. Dr. Snieckus completes an eight-year stint as Bader Chair of Organic Chemistry on June 30, 2006. Vic moved to Queen's to assume the Bader Chair in 1998 from the University of Waterloo, where he held the Monsanto Chair in the Department of Chemistry. He is recognized internationally as a leader in synthetic methodology in organic chemistry. Vic continues to direct a thriving research group, to be in high demand as a seminar and conference speaker around the world, and to serve as a consultant to a large number of companies in the pharmaceutical sector. During his tenure as Bader Chair, Vic raised the profile of the Department across Canada and internationally. The appointment of Dr. Victor Snieckus as Bader Chair Emeritus is applauded by the Chair's benefactor, Dr. Alfred Bader, who points out that Vic remains an energetic researcher, a dynamic departmental ambassador, and an intellectual leader in the field of synthetic organic chemistry.

Please Welcome Our Newest Professor

Jean-Michel Nunzi will join our Department on July 1st, 2006. Jean-Michel is currently a 1st class Physics Professor and plastic solar cells team leader at University of Angers, France. His credits include an Engineering degree from ESPCI school, a 1st PhD thesis on nonlinear optics at surface in 1984, a 2nd PhD thesis on nonlinear optics with polymers in 1990, a research fellowship at French Atomic Energy Commission from 1984 to 1995, Organic device team leader from 1995 to 2000, a Habilitation thesis in 1999, 11 patents and 155 publications in scientific journals. He has educated 6 research fellows, 11 postdoctoral fellows, 22 PhD students, and 28 undergraduate. We welcome Jean-Michel and his family to Kingston and our Department.

Alumni Contact Information

Do we have your current, correct mailing and contact information? Do you have a new email address? Let us know. We would really like to locate and/or hear from all of our "extended family" of alumni. Please feel free to write/email/call and give us details of where life has taken you since your days in the Department!

Chemistry Department, Queen's University
90 Bader Lane, Kingston ON K7L 3N6
Tel (613) 533-2616 or 1 800 267-7837 toll free
Fax (613) 533-6669
head@chem.queensu.ca
http://www.chem.queensu.ca/

Surface Canada 2006

Chernoff Hall hosted several events in 2005/2006. Amongst our highlighted symposiums were Surface Canada 2006, the 20th Canadian Conference on Surface Science and The Materials and Nanotechnology Symposium. Other events included the production FEN from Knockabout Theatre Co. and The Single Thread Theatre Company which took place in the Chernoff Courtyard.

Surface Canada 2006, the 20th Canadian Conference on Surface Science, was held in the Chemistry Department at Queen's from May 14 – 17. The Surface Canada conferences are biannual meetings of the Surface Science Divisions of both the Canadian Society for Chemistry (CSC) and Canadian Association of Physicists (CAP). This year's conference featured some 40 talks and 80 posters presented by chemists and physicists from across Canada and internationally on topics such as surface catalysis, electrochemistry, biological interfaces, and nanochemistry. The plenary speakers included Dr. Franz Giessibl of the University of Augsburg, a pioneer in the development of atomic force microscopy, Dr. John Stickney of the University of Georgia, an internationally recognized electrochemist, and Dr. Dan Frisbie of the University of Minnesota, a leader in the fabrication of organic semiconductor electronic devices. The conference also featured the Hobson and Carette competitions, the Surface Science Division's awards for best student oral presentation and poster. This year's Hobson prize was won by Josh Lipton-Duffin of the Physics Department at Queen's. On a lighter note, Erik Jensen of the University of British Columbia gave a talk "Friction with a Twist: The Physics of Rock Curling Motion" at the conference banquet. While a more "fun" talk, his work in this area has a serious side and has engendered both interest and controversy on the international scene. Besides the excellent scientific program, we also had a number of commercial exhibitor's booths present with representatives from major vendors of vacuum and surface analysis equipment in Canada. One of the largest Surface Canada conferences in recent memory, the meeting served to not only bring together researchers in surface chemistry and physics from across Canada, but also highlighted the world class research and facilities in the Chemistry Department at Queen's.

Press Release...

March 20, 2006... At the end of the month, Knockabout Theatre Company will open its inaugural season with Caryl Churchill's Fen. Artistic director Sasha Kovacs directs this edgy and compassionate play about a group of women in the British Fenlands.

Fen demonstrates the immoveable bond that ties our land to our lives. It is a story of survival and struggle in a rural society on the brink of corporatization. This innovative production highlights an outdoor theatrical experience that will challenge its audience to evaluate land as a life cycle. Featuring a cast of six vibrant and young actors that play over 18 different characters, Fen reveals the plight and growth of mothers and daughters in the waste land of a not-so-distant past.

The Materials and Nanotechnology Symposium 2006

The Materials and Nanotechnology Symposium 2006 at Queen's, a science and technology forum for Queen's University researchers, postdoctoral fellows, graduate students and Eastern Ontario-based industry, took place on April 28th, 2006. The Keynote speaker was Prof. John C. Polanyi, presently a faculty member in the Department of Chemistry at the University of Toronto and Nobel Laureate, The title of his lecture was Molecular Imprinting: A Chemist's Approach to Building Nanostructures. The opening lecture of the Symposium was given by Prof. Eugenia Kumacheva, a professor at the Department of Chemistry at the University of Toronto The title of her lecture was Microfluidic Reactors for Continuous Polymer Synthesis Sponsors included **Queen's University, Office of VP Research, Faculties of Arts and Science of Applied Science, Departments of Chemistry, Physics, and Chemical Engineering, NSERC Nano Innovation Platform, Emerging Materials Knowledge Network , CMC Microsystems, Datacomp Scientific, Systems for Research, PANalytical.** The winners of the student poster competition were Andrew Mark and Josh Lipton-Duffin (both from Queen's Physics department) and Tobin Filleter from McGill University. The attendance this year was 117 people!

We thank the department of Chemistry for hosting this event, and we thank all the sponsors for their support. Next year's conference will be on April 26, 2007(tentative date). For more info, please email lisak@chem.queensu.ca

Looking Back...

A year has nearly gone by since our lab "was born", and, as for an infant child, that 1st year was pretty intense and filled with discoveries of all sorts.

Anne and Liyan (PhD student; not present on the picture) dove into many lab catalogues in order to get the lab "dressed" with the minimal initial equipment, set of chemicals and glassware and actually discovered the names of a few items which no-one knew the official names of! Prof. Whitney is greatly acknowledged for generously donating very useful and rare pieces of equipment (the use of a few of which is still a mystery for us!). Our first experience with grant writing and submission was also memorable, the stories of which will certainly constitute a unique chapter in the lab's history. Once the initial equipment was in, Liyan had to discover how to create space and to assemble the pieces (fortunately easier than IKEA!). The first reaction and first NMR spectrum was quite a big event! Liyan was soon joined by Dean Latham, an enthusiastic Engineering Chemistry 4th year student who courageously conducted his 4th year project in the group, ran our 1st memorable microwave reaction and learned to enjoy column chromatography. As everyday life in the lab was getting more comfortable in the winter term, Alison, a co-op student, brought more life learning about the research environment, synthetic and spectroscopic techniques with an amazing ease. At that stage three projects were developing in the lab when Liyan decided to take a year leave to go back to distant China. As spring came, the lab started blooming with the addition of two researchers, namely Charline Wiegert (PhD student) and Dr Farhana Oueslati (post-doctoral fellow) both from France. Dean was successfully awarded an NSERC undergraduate summer research award and continues his project in the lab over the summer, while Marinha Capela, also an NSERC USR awardee, has started her summer project on DNA adducts. All four researchers turned the lab into a purely bilingual environment!

From left to right: Marinha Capela (3rd year Eng. Chem.), Dr. Farhana Oueslati (post-doctoral fellow), Dean Latham (4th year Eng. Chem.), Charline Wiegert (1st year Ph.D) and Dr. Anne Petitjean (group leader).

Getting a lab started from not much takes a lot and it would certainly not have been possible without the kind and generous help and assistance of the whole Chemistry Department, faculty, staff and students, as well as Queen's officers, who have always been extremely welcoming, helpful and encouraging. As we look into the future, we anticipate our progress in both fields of self-assembly and DNA damage recognition to be boosted as new equipment should be available at our final destination on the 4th floor.

Dr. Anne PetitJean

When I think back to all of the "first year" experiences I've had, it is quite clear that my first year at Queen's falls into a different category. The fall semester was filled with acronyms: CRC, CFI, ODRA, NSERC, DG, RTI, LEF, ARC, PDF, ACS, PRF, MRI, ERA, to name a few... each representing a painful, but critically important lesson learned (read: grant application, progress report or worse, budget finalization – uck!). In the winter semester I enjoyed my first ever opportunity to lecture, thereby associating it with yet another acronym: USAT. USAT stands for University Survey of Student Assessment of Teaching. Fortunately, I became deathly ill during the last week of the semester and only 10% of my class showed up to vent their frustration at my inexperience, but we won't talk about that...

The redemption this year: interacting with exceptional colleagues (faculty, staff and administrators) bright, enthusiastic undergraduates and graduate students and most importantly, the individuals shown in the photo below.

Heather Stefanison, Tony Zemanek and Mike Tam, my first set of 4th year undergraduate students showed up in the fall on the first day of classes to an empty lab. To make matters worse they had to learn how to do everything from the boss – no cool grad student or phenomenally-talented, laid-back post-doc – and routinely had to put up with a demonstration that was prefaced by, "this isn't really the right way to do this, but it works...". Being the bright minds that they were, this generally prompted the question "what is the right way?" and better yet, "why aren't we doing it that way?" which was usually answered "the right way requires a _____, and we don't have one of those yet".

Despite these challenges and thanks in no small part to the timely arrival of post-doc Susheel Nara from Université de Montpellier (France) in November, Heather, Tony and Mike made impressive progress on their research projects over the course of the year. Susheel's arrival saved the lab. He took over supervisory and mentoring duties for the undergrads, allowing me to get a few things done (read: clear backlog of paperwork from my desk) and even he managed to get quite a lot of work done. The winter semester saw the arrival of graduate student Johan Brinkhorst from Amsterdam and later, post-doc Mukund Jha from the University of Saskatchewan. All told, one year in, things in 539 Chernoff Hall are actually starting to look like a research laboratory and not a bad garage sale!

Dr. Derek Pratt

Dr. Mukund Jha (post-doctoral fellow), Mike Tam (4th year Eng. Chem.), Tony Zemanek (4th year Eng. Chem.), Heather Stefanison (4th year Eng. Chem.), Johan Brinkhorst (1st year M.Sc.), Dr. Susheel Nara (post-doctoral fellow), Dr. Derek Pratt (group leader).

2005 – 2006 DEPARTMENTAL HIGHLIGHTS

December 2005

Francoise Sauriol receives the Department of Chemistry Staff Recognition Award as staff person of the year.

January 2006

Gary vanLoon receives the 2005 Excellence in Education Award from the Canadian Mortgage & Housing Corporation.

Jean-Michel Nunzi accepts terms of offer as new faculty member jointly appointed between Chemistry and Physics. Jean-Michel submitted a CRC application to the CRC Secretariat in Ottawa in December 2005. He expects to begin his new job at Queen's in July 2006.

March 2006

Stan Brown awarded one of ten Killam Research Fellowships for 2006-07 and 2007-08. Killam Research Fellowships enable Canada's best scientists and scholars to devote two years to full-time research and writing. Twenty-one fellowships were awarded in 2006 consisting of ten new ones and eleven 2nd year renewals including the Killam Research Fellowship awarded to Axel Becke in 2005. The recipients are chosen by the Killam Selection Committee, which comprises 15 eminent scientists and scholars representing a broad range of disciplines.

The Deputy Minister of Research & Innovation, Dr. Alistair Glass, visits the Department 9 as part of a one-day visit to Queen's to listen to presentations on selected research projects from five researchers.

April 2006

Jean-Michel Nunzi is awarded a Tier I Canada Research Chair (appointment at Queens' commences July 2006).

Richard Oleschuk is granted tenure and promoted to rank of Associate Professor, effective July 1, 2006.

Richard Oleschuk is nominated for the Frank Knox Award for Excellence in Teaching.

May 2006

Bill Newstead awarded First Year Teaching and Learning Award for 2005-06.

Richard Oleschuk receives a Chancellor's Award from Queen's University.

Cathy Crudden is appointed to three-year term as member of NSERC Strategic Grant Selection Panel (Competitive Manufacturing & Value-Added Products & Processes).

Class of 2005-2006 has quality and quantity:
14 of 28 students in Engineering Chemistry (ENCH) graduate with 1st class Honours and 11 of 30 students in Chemistry programs (BSCH CHEM)graduate "with Distinction" (over 80% average). Combined with 3 additional students who will likely graduate with BSCH CHEM degrees in the Fall, this is a total of over 60 CSC accredited Chemistry graduates, 25 of whom are First Class. A recent article (last Winter) in C&E News indicated that there are only a very few universities (less than 10) in the U.S.A. that graduated more than 50 accredited chemists (data from two years ago). There is a reasonable possibility that, for this year, we are amongst the top institutions in North America in terms of graduating accredited chemists.

Undergraduate summer research: 18 students holding NSERC Undergraduate Summer Research Awards and 12 other students begin four months of research work in various research laboratories in the Department.

Undergraduate summer industrial research: One student begins four months of summer industrial research at Alphora Research in Mississauga. This position is made available annually by Alphora as a project between the Department and the Queen's Chemistry Innovation Council, aimed at providing Queen's Chemistry students with industrial research experience.

Departmental Retreat: The annual departmental retreat was held on Monday May 8 at the Kingston Yacht Club. The entire day was devoted to a strategic planning session facilitated by Erik Lockhart of the Queen's Executive Decision Centre. Nineteen chemistry faculty members attended.

Former Chemistry graduate student Graham Gibson receives a 2006 Governor General's Gold Medal for excellence in Ph.D. research at Queen's University. Graham's Ph.D. supervisor was Stan Brown. Graham is now a postdoctoral fellow with Richard Oleschuk.

Queen's Chemistry Innovation Council: A Message from Jan Oudenes, Council Chair

The Queen's Council in Chemistry is an advisory council to the Chair of the Chemistry Department and continues to promote the interaction between the chemistry department (chair, staff, undergraduate and graduate students as well as postdoctoral fellows and research associates), industry, government and our society at large. We would like to congratulate Dr. Bob Lemieux with his new position and certainly would like to offer him our encouragement and assistance. We also would like to congratulate Dr. David Wardlaw who has accepted the position of Dean of Science at the University of Western Ontario. Personally I think that David's appointment represents a strong recognition of the vision and leadership that Queen's University has provided within the greater academic community in Canada.

From a very general perspective one can certainly see that science and education have gained further prominence in Ontario during the last several years. As an example, we have seen that the Premier of Ontario, Dalton McGuinty, has become very involved in the biotechnology industry which was shown by his involvement and support of the major industry trade show at BIO2006 in Chicago. In addition the establishment of the various regional biotechnology centres in Ontario bodes well for the long term growth of science and technology at Queen's, in Ontario and Canada.

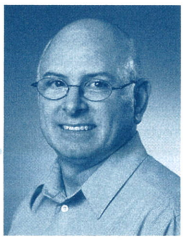
The QCIC has focused during the past year to be a catalyst in connecting academia and industry. Our society will demand technology solutions to ever more complex problems in diverse disciplines (for example clean energy, environment, materials, life sciences) and will undoubtedly look towards our universities and colleges for skilled personnel to bring about change. Together with the challenges of global competition from emerging countries we need to ensure that we develop the best academic programmes. That is the task that we face together.

In summary I believe that the Chemistry Department of Queen's University and its students are well prepared for the future. We would like to extend our congratulations to all new graduates, wish you a great summer and all the best in your future endeavours.

A few words from members of the Council

When I was approached by Queen's to consider joining the Queen's Chemistry Innovation Council three years ago, I readily accepted it. I was excited about the opportunity to serve as a Council member because of the solid education which the Department had provided me and my fond memories of many of the professors and fellow students. In the past three years, I have witnessed the unity of the Council members and the growth of the Council in fulfilling its mandate. Being the only non-industry member, I not only am able to offer a complementary perspective, but also to learn from the other Council members and professors. Together, we make a unique contribution to the Department.

Dr. Walter Chan



I am currently the Life Sciences Specialist at The Equicom Group, a company that specializes in investor relations for small to mid size public companies, including about thirty five life sciences companies as clients. How did I arrive in this profession twenty nine years after obtaining my Ph.D. in carbohydrate chemistry from Queen's University in 1977? The journey included an MBA from York University, done on a part-time basis over six years. It was a long and twisting journey, through the biopharmaceutical and financial industries, with positions in research, manufacturing, marketing and as a stock analyst.

It has been a thoroughly enjoyable journey starting with a great four years in the Chemistry Department at Queen's. The carbohydrate group included about fifteen graduate students and post-docs under the direction of the recently retired Walter Szarek and the late J.K.N. Jones. We were a tight group, three of us shared a house, all of us shared coffee, dinners and a few drinks. We came from a number of countries including Canada, U.K., Japan, Korea and Poland and we currently work in a number of professions including academia and industrial research, and some unrelated to our first careers in chemistry such as woodworking.

I still have a connection with Queen's through my work with the QCIC. I have benefited throughout my career from my four years of training at Queen's, where I think the most important thing we learned was not our technical skills but how to solve complex problems. I am happy to have an opportunity to give something back to the current staff and students. My connection to Queen's will also continue through my son, who starts his B.Ed. this fall exactly thirty years after his mother chose that same path.

Dr. G. Wayne Schnarr

Lisa Menard,
Advancement Officer
Phone: 1-800-267-7837
Extension 75501
E-mail:
lisa.menard@post.queensu.ca

Patty McHenry,
Senior Development Officer
Development & Business Relations
Phone: 1.800.267.7837
Extension: 75646
E-mail:
mchenryp@post.queensu.ca

Advancement News

What does Advancement do for our Students? Have you ever wondered how a graduate student finds funding to complete their Master's in Chemistry? Or, what and who made it possible to build Chernoff Hall? How does this department establish a scholarship for students? Or, even how a class can organize a reunion gift?

It is the focus of the Arts & Science Office of Advancement to work closely with the Department of Chemistry and its graduates to match your philanthropic and volunteer interests with the needs of the Department and the University.

Thank you for your past contributions to the Department, the Faculty and the University – your invaluable support is making a difference to the Queen's student experience. With your involvement, we hope to continue to create opportunities for current and future students.

Department of Chemistry TA Award Recipients

In order to promote and recognize excellence in teaching by Teaching Assistants (TAs) in Chemistry, a set of seven awards provides comprehensive coverage both tutorial style and laboratory teaching in 1st, 2nd, and 3rd years. Each TA award is $500. Awards for the 2004-05 academic year are presented at the TA training day in early September:

William Patrick Doolan Award
Presented to the top TA working in 1st year chemistry laboratory
Goran Stojcevic

The Fisher Scientific TA Award
presented to the outstanding TA in 2nd or 3rd year tutorial
Dalia Abdallah

Din Lai TA Award
Andrew Munro

Merck Frosst Canada
TA Awards presented to the top TAs involved in 1st year tutorials
Alison Holliday
Krista Laugesen

David Thomas TA Award
Owen Clarkin

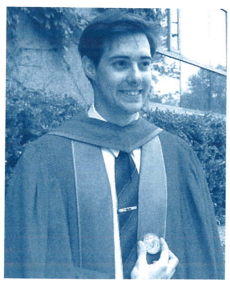
Varian Canada TA Award
Dominique Turcotte

New Analytical Equipment in the Master of Art Conservation (MAC) Program

Emeritus Professor H.F.(Gus) Shurvell has passed a Government of Canada examination to be a licensed operator of a portable X-Ray Fluorescence (XRF) analyzer purchased recently by the Art Conservation program at Queen's with funds from the Getty Trust. Dr. Shurvell is an adjunct professor in the Master of Art Conservation (MAC) program. He gives lectures on infrared and Raman spectroscopy and helps the students with the spectroscopic analysis and chemistry aspects of Art Conservation. Gus is now "The XRF man". The instrument is proving to be very useful in the analysis of antique objects such as coins and bronzes and other metallic artefacts. The instrument also can identify heavy elements in paint pigments and other artists' materials.

The radiation source in the instrument is a miniature x-ray tube (not a radio active source). A minute amount of x-ray radiation is produced during a 30 second test. However, because x-rays are ionizing radiation, the instrument falls under the Government of Canada "RED" (Radiation Emitting Devices) Act, which covers everything from nuclear reactors down to XRF analysers. Any operator of a "RED" has to pass an examination set by Natural Resources Canada to obtain a "Driver's Licence" with photo ID. This photo shows Dr. Shurvell and Dr. Alison Murray of the MAC program. They are the only licensed operators at Queen's of the XRF analyser.

Dr. Graham Gibson awarded The Governor General's Academic Gold Medal



The Governor General's Gold Medals are awarded to two graduate students who achieve the highest academic standing in their graduate degree program. Dr. Graham Gibson was awarded a Gold Medal at the 2006 Spring Convocation. Graham's Ph.D. supervisor Dr. Stan Brown was quoted as saying "I believe he is truly destined for an outstanding career." The Department of Chemistry congratulates Graham on his tremendous achievement.

Special Public Service Award

A very special award was presented for outstanding contribution to the TAs of the Department of Chemistry. The recipient worked with six ESL graduate students in the Department of Chemistry helping them to better communicate in English by working on their pronunciation skills. Pictured is recipient Sarah Chan (4th year, Biology) being presented with her award from Patrick Deane, V.P. Academics.

Staff Person of the Year

Presented to

Françoise Sauriol

In recognition
of outstanding contributions to the
learning and working environment
at Queen's University
Department of Chemistry 2005

Saying Goodbye

Vedene H. Smith was a member of the Department of Chemistry for 33 years and served two terms as Head. He joined the Department of Chemistry at Queen's University in 1967 as an Associate Professor, was promoted to full Professor in 1970, and became a Professor Emeritus of Chemistry upon retirement in 2000. Vedene established an international reputation in the field of theoretical chemistry for his extensive research program in the area of quantum chemistry. During a very active and distinguished career he produced over 360 refereed papers, supervised 28 graduate students (M.Sc. and Ph.D.) and 29 postdoctoral fellows and research associates, and delivered numerous invited lectures around the world. Vedene was diagnosed with a rare form of blood cancer (multiple myeloma) in 1996. He fought this illness valiantly, beginning with an experimental treatment, and steadfastly refused to allow it to interfere with his research, his work or his travels. His strength is an inspiration to all of those who knew him. Vedene succumbed to this illness on Sept. 30, 2005 in Kingston. He is survived by his daughter Stefanie and his wife Regina.

Nico van Gelder was an adopted emeritus faculty member in the Department of Chemistry. He retired from Univeristé de Montréal in 1997 and moved to Kingston to continue his research in neureochemistry in Don Weaver's group. Nico was the author or co-author of three books and 87 articles in scientific journals and a member of the editorial boards of many international journals, as well as an appointed expert of the United Nations and the World Health Organization. Nico was very active in health promotion, especially in Latin America. For his accomplishments he was awarded several distinctions in Japan, Italy and the Netherlands, and received the Order of Andres Bello of Venezuela. His fatal heart attack struck him on Sept. 19, 2005 when he was ready to drive home after yet another day in the laboratory. Nico is survived by his wife Louise and their three children, and two grandchildren.

Hans Colpa was a member of the Department of Chemistry for 22 years as a teacher, a researcher, a mentor, an editor, and a collaborator. While at Queen's Hans taught theoretical chemistry to upper year and graduate students and introductory courses at the 1st and 2nd year levels. Hans was more than a scientist. He had a passion for music: He was a connoisseur of fine music and played the piano every day. He also had keen interest in the history of science: He was fascinated by the history of quantum mechanics – the subject that underlies all of modern physical science – and researched this subject at every opportunity. In the 1950's Hans taught part-time at an art school in Amsterdam while a graduate student. He taught a course on the chemistry of paint. In his latter years Hans suffered from Alzheimer's disease. He died peacefully on Nov.10, 2005 in Kingston. Hans is survived by his wife Johanna and his son Alexander.

DESIGN: QUEEN'S MARKETING AND COMMUNICATIONS 06-0453