The View From the Front Office

Early in June, I sat down to collect my thoughts on the past year in the Department of Chemistry, but the flood of 2008 has had such a dramatic impact on the entire UI that any reflection now must begin with the events of the last month. As the flood waters rose, the six chemistry groups in IATL had to move what they could into the relatively high ground of CB itself. Shortly thereafter, IATL was closed and, as the waters continued to rise, a small army of volunteers built a wall of sandbags through the parking lot behind CB to protect this building. In the end CB did not get flooded, but it was not unsathed either. The entire UI was closed to all but a skeleton crew for ten days, and for two of those days CB had only emergency power. Even now, full power has yet to be restored to the east campus. We’ve had to shut down roughly half our hoods to avoid crashing the grid, even as our colleagues from IATL remain working in instructional labs in CB. Yet as stressful as this time has been, these challenges also bring out the very best in our Department. From the newest students to the most senior faculty and staff, people have helped out where they were needed: moving colleagues, preserving and protecting equipment, or pooling resources to ensure that research can continue. And then in their “spare time” many have filled sandbags or moved books from the basement of the main library. These efforts are inspiring, and I’m confident that we will meet these challenges as we meet so many others, by working together.

While the flood still dominates our attention, I don’t want to overlook the many significant accomplishments of our Department through the past year. In December, we held an Open House to mark completion of Phase 1b of the renovation, and in January, we began teaching our classes in 10 new instructional laboratories. Several research groups are now found in renovated labs, and more will join them in the coming year as this building project moves into Phase 2. The scope of Phase 2 increased dramatically last August, thanks to a major new grant from the Roy J. Carver Charitable Trust that will drive renovation of the NW wing of CB. But the story of this Department is always a tapestry of the stories of our people. Three faculty colleagues earned promotions this past year, and several won prestigious awards. Sarah Larsen became an associate editor for the Journal of Physical Chemistry, and Norb Pienta was chosen to become editor-in-chief of the Journal of Chemical Education. Our graduate enrollment holds stable between 130 and 140, a level possible only because the College of Liberal Arts & Sciences has continued to support competitive TA stipends, the Graduate College has appointed a number of our current students as Presidential Fellows, and our GAANN grant brings in support from the Department of Education. The financial support of our alumni and friends continues to grow, and the moral support they provide is truly heartening - I can’t even count all the offers of support we’ve had to deal with the flood. Thus it’s an exciting time to be a part of the Department of Chemistry, and we hope to share some of that excitement with you through this Newsletter.

David Wiemer
McCloskey Donation Gives Department a Bright Future

Chester and Olive McCloskey of Altadena, Calif., through their company, Norac Inc., have made a gift of $1 million to the University of Iowa Foundation to support chemistry research and education at the UI. Approximately $750,000 of the gift has established the endowed Chester and Olive McCloskey Graduate Fund, which will support graduate students in the Department of Chemistry, a unit of the UI College of Liberal Arts and Sciences. “Chester McCloskey has been a good friend to our department and our university, and now generations of graduate students will benefit from his generosity,” said David Wiemer, chair of the Department of Chemistry. “We are proud to count him among our alumni, and extremely grateful to him and Mrs. McCloskey for this extraordinary gift.”

The remaining $250,000 of the gift has created the endowed Chester and Olive McCloskey Fund in the UI Libraries, which will be used to purchase chemistry journals and other chemistry research materials. “This gift will greatly enhance our ability to serve chemistry students and other researchers,” said University Librarian Nancy Baker. “With these resources, we’ll be able to purchase materials that the university wouldn’t otherwise be able to afford. The McCloskeys have chosen a wonderful way to support chemistry at the UI, and we couldn’t be more thankful.”

Chester McCloskey earned two degrees from the UI (M.S., 1942; Ph.D., 1944), and is a 2008 Alumni Fellow in the College of Liberal Arts and Sciences. He received the UI’s prestigious Bartow Award in 1943, given by the UI chemistry faculty to the department’s outstanding doctoral student. McCloskey said he and his wife wanted to demonstrate their deep appreciation for the university. “The University of Iowa did a lot for me and I want to do something for them,” Chester McCloskey said. “My research experience as a graduate student at Iowa enabled me to build a great career, and I’ve always remembered my time there fondly. In particular, I spent a lot of time in the library—-it was almost like home to me. We’re very pleased to support future students in the chemistry department.”

After earning his doctorate, Chester McCloskey conducted post-doctoral work at the California Institute of Technology, leading a team of researchers on defense-related projects. In 1953, he established Norac Inc., a leading manufacturer of organic peroxides, metallic stearates and pharmaceutical materials, with branches in California, Arkansas and Sweden.

Chester McCloskey, who grows walnuts and raisins on a California farm in addition to his duties at Norac Inc., has been a member for more than 30 years of the Hazardous Materials Technical Committee of the National Fire Prevention Association; is the U.S. representative on the International Group of Experts on the Explosion Risks of Unstable Substances; and was a founding member of the Organic Peroxide Producers Safety Division of the Society of the Plastics Industry.

Department of Chemistry Faculty Receive Accolades & Appointments

Several Chemistry faculty received honors and special appointments this year. National honors were received by Profs. Amanda Haes and Len MacGillivray. Amanda Haes, who joined the UI in 2006 after receiving her Ph.D. from Northwestern and conducting postdoctoral work at the Naval Research Labs, had a big year! She received both the Victor K. LaMer Award from the ACS Division of Colloid and Surface Chemistry and the NRC/ASEE Postdoctoral Research Publication Award from the Naval Research Laboratory. Prof. Len MacGillivray received the Arthur C. Cope Scholar Award from the American Chemistry Society. This award recognizes excellence in the area of organic chemistry and included a $40,000 unrestricted research account.

Our faculty also received recognition from within the UI. Greg Friestad was named as a Faculty Scholar, a three-year award that grants release time from teaching to pursue his research endeavors. Prof. Sarah Larsen was selected as the College of Liberal Arts’ first Collegiate Scholar recipient in recognition of her promotion to full professor. Her case was deemed to be the strongest of all cases considered for promotion to full professor this year.

Department of Chemistry faculty were also appointed to special assignments within their field this year, which adds responsibilities to their plates, but also gives national recognition to both their research programs and the entire department. Prof. Vicki Grassian was elected to several posts over the last year. She is holding a three year term on the Executive Committee of the Physical Chemistry Division of the American Chemistry Society. She has also committed a three-year term to each of the following Editorial Advisory Boards: Energy and the Environment, a new journal linking all aspects of the chemical sciences relating to energy conversion and storage,
The Nanoscience and Nanotechnology Institute at the University of Iowa had yet another big year! Chemistry Department faculty members, Vicki Grassian, Director, and Sarah Larsen, Associate Director, have both successfully led and been a part of several major grant efforts to further the development, infrastructure, education, and research in nanoscience and nanotechnology on the University of Iowa campus.

The Roy J. Carver Charitable Trust Foundation provided one million dollars in funds to acquire a Field Emission Transmission Electron Microscope (FETEM) which will advance both research and education at The University of Iowa. The FETEM is becoming a critically important instrument for the characterization of nanomaterials and will be used extensively by a number of researchers in the Department of Chemistry and throughout campus. The instrument will be housed in the Central Microscopy Research Facility.

Vicki Grassian partnered with the Environmental Health Sciences Research Center to receive a $1.2 million grant from the National Institutes of Health (NIH) to investigate the potential toxicity of inhaled nanomaterials. A goal of these studies is to establish a relationship between nanoparticle properties and health outcomes.

In the fall semester, it was announced that the NIH funded a $33 million Center for Translational Science Award (CTSA) to the Institute for Clinical and Translational Science. This NIH grant is one of the largest ever received by the University of Iowa. This grant will allow for the bridging of basic and clinical research. Vicki Grassian participated in writing a NanoHealth portion of the CTSA grant.

As part of the NanoHealth initiative, NNI@UI hosted a symposium entitled, “Bridging the River with Nanoscience and Nanotechnology.” Amanda Haes, Assistant Professor of Chemistry, gave a talk on “Engineering Nanostructures for Enhanced Biomedical Sensing Applications” at the symposium.

Early in the spring semester, Sarah Larsen was notified that her Research Experiences for Undergraduates (REU) grant proposal to the National Science Foundation was funded. The REU program provides undergraduate students with an opportunity to spend the summer conducting interdisciplinary research in fields pertaining to the environmental and health aspects of nanoscience and nanotechnology. Funding is provided for three summers. For summer 2008, ten students participated in the program.

This has been a very exciting year for the Nanoscience and Nanotechnology Institute, and they are looking forward to continuing that momentum into the next year!
The Undergraduate Chemistry Laboratories have moved! Beginning in the spring 2008 semester, Chemistry lab courses are being taught in the remarkable new instructional area constructed in the center of third and fourth floor. This area was previously occupied by the chemistry library and the lecture hall, 300 CB. Five general chemistry laboratories and a prep room now occupy third floor and four advanced labs, two instrument rooms, and a satellite prep area occupy fourth floor. All together the instructional laboratory space grew impressively from 13,526 to 19,923 square feet.

The move went much faster than anticipated. Due to construction delays, it had to! The new labs were commissioned in December 2007 and classes started on January 22, 2008. Twenty-two instruments, the entire contents of the “retired” prep room including approximately 1,300 chemicals, glassware, and small equipment, and over 300 student drawers were moved between November 6, 2007 and January 9, 2008. That is a very condensed version of the move!

There were countless projects associated with this move that took place throughout the fall and winter months. For example, Jeff Miller, our Systems Administrator, unboxed and set up the 96 new student computers in a satellite lab area since the new labs weren’t yet secured and operational. He loaded all the needed software and had the computers ready to go when the labs were finally finished. Jeff and David Sansbury, our Applications Specialist, installed these computers and necessary peripherals in three days between installation of the lab security system and the start of classes.

Shonda Monette and Brian Morrison, third and fourth floor Lab Managers, cleaned, cleared, and organized. Surplus and unused equipment was gathered in a central location and offered to research groups, donated to other educational facilities, or sent to University Surplus. It is amazing what accumulated in the Chemistry Department over the last 20 or so years! It felt very good to be able to share equipment with those who could use it.

Amber Seaton, Chemistry Administrative Assistant, worked on securing equipment for moving such as carts and containers, furniture installation, security system installation, keying, signage, and numerous other projects that had to be coordinated for moving. She contributed a positive “can do” attitude that made the entire move much easier.

A great deal of planning went into this move. From January to November 2007, the Prep Staff met weekly to document every logistical aspect of equipment, chemicals, and instrumentation that would have to be moved. The information was formulated into maps that showed current location and new location. Time lines and back up dates were determined. Sixty Graduate Teaching Assistants coordinated with the Prep Staff to move everything within the strict time lines governed by classes and construction schedules. Shonda and Brian supervised and participated in every scheduled move. It was an amazing accomplishment!

As with all amazing accomplishments, it wouldn’t have happened without a great deal of support, sometimes silent behind the scenes, sometimes more obvious, but always essential to success. Dave Longtine and Jeff Harney from Facilities Management made multiple compromises and negotiations to accommodate our move and assist us in meeting deadlines. DEO David Wiemer and Senior Administrator, Hazel Kerr, did more than anyone can probably know. Their constant support and encouragement kept the Prep Staff informed and optimistic. Dave and Hazel made all of the resources at their disposal available to assist in the move.

In May, one department administrator said, “I don’t think anyone understands what a large accomplishment this move was.” That was a tremendous compliment when you realize it implies the move was seamless. One day classes were in old labs and without any obvious effort the next day they were in new labs.

Several of the staff were rewarded by CLAS for these extraordinary efforts by receiving the Mary Louise Kelley Staff Excellence Award, including Jeff Miller, David Sansbury, Amber Seaton, Shonda Monette, Brian Morrison, and Earlene Erbe. But a thank you is due to many, many people who helped move the Chemistry Department forward into a new era.

“The new undergraduate facilities are a breath of fresh air. We are now able to truly give our students the quality experience they expect from a Big Ten university. “

- Shonda Monette,
Laboratory Manager
Graduate Student Achievements Recognized in 2008

This year, the department instituted a new type of recognition for excellence in research by graduate students. Dejan-Kresimir Bucar (MacGillivray group) and Martin Thuo Mwangi (Bowden group) received the first ever A. Lynn Anderson Award for Research Excellence. Lynn Anderson was a Department of Chemistry Alumni who passed away earlier this year. Bucar and Mwangi were nominated by their advisors for their publications, presentations, and ability in research. Bucar was described by Dr. MacGillivray as emerging as a premier solid-state chemist of his generation with eight publications during his career at the UI. He also received the International Centre for Diffraction Data Ludo Frevel Crystallography Scholarship Award in 2008, and both the European Crystallography Meeting Student Poster Prize and the American Crystallographic Association Special Recognition in Supramolecular Chemistry Session in 2007. When asked to describe how he felt about receiving this award, Bucar said, “I feel highly honored to receive this award! Having in mind the large number of talented, motivated, and hard-working graduate students in our Department, it is an enormous privilege to get such recognition. It truly means a lot to me! This award is a huge motivation to keep improving my skills and knowledge, but I also regard it as a pleasant obligation to lend a helping hand to younger colleagues, whether in or outside the lab.” Mwangi was highly recommended for this award as he has published six papers and has developed several unique methods of research in the Bowden group. He had this to say about the award, “I am very grateful to the department for recognizing and honoring me. The award came at the most opportune time in my graduate career as it really rejuvenated my research. This is a great honor and I feel privileged to have been one of the “inaugural” awardees.” This award will be given annually to recognize the research of the best and brightest graduate students in the DoC in conjunction with the Chemistry Graduate Student Appreciation celebration.

Travis Owen (Rohde group) received the tremendous honor this year of being named one of the Council on Teaching’s Outstanding Teaching Assistants. Travis was nominated for his phenomenal teaching abilities in Principles of Chemistry II where he both inspired students and mentored other teaching assistants. Several of Travis’ students referred to him as the “best TA ever!” It is clear from the letters of support provided by his students that he is making quite an impact on their futures and is poised to make teaching an integral part of his career. The Department of Chemistry awarded a Teaching Assistant Award this year. The recipients were Elizabeth Elacqua (MacGillivray group), Jameson Keck (Tivanski group), Matt Kelley (Rohde group), Will Rock (Cheatum group), Yulia Skvortsova (Geng group), and Vanja Stojkovic (Kohen group). The Annual UI James F. Jakobsen Graduate Conference, sponsored by the UI Graduate Student Senate, and the University of Iowa Graduate College, gives students great experience describing their research projects to the university community. This year’s winner from the Department of Chemistry was Poonam Kaushik (MacGillivray group). She received 3rd place in the Mathematical, Physical, and Engineering Sciences division. Anatoly Sokolov (MacGillivray group) received an American Chemistry Society, Division of Organic Chemistry Student Travel Award. Several additional students received travel awards and other forms of support from the University of Iowa Graduate College, Student Government, and the Graduate Student Senate. We gratefully acknowledge these contributions to enhancing the educational experience of the Department of Chemistry’s graduate students. Congratulations to all of our graduate students on another successful year!

See our new giving site (www.givetoiowa.org/chemistry) for ways that you can support the Department of Chemistry!
Completion of Phase 1b of the State Funded Renovation Project, slated for November 2007, crept into December and January posing some challenges to the instructional lab team. However, as noted in the article on page four, our dedicated staff members were successful in effecting the move by the start of the spring semester, January 2008.

Additional space completed during this time consisted of research labs, faculty offices, and research assistant/post doc offices in the NE wing for the research groups of Professor Amnon Kohen and Professor Len MacGillivray and one new hire. The Kohen and MacGillivray groups relocated to new space by the close of spring break in March. Their vacated labs are cleared out and ready to be demolished in Phase 2 of our project. The Department of Chemistry hosted an “Open House” celebration to mark the completion of Phase 1b of our renovation project. The 300+ attendees included President Sally Mason, Interim Provost Linda Lopes, Dean Linda Maxson, and many other UI community members. Staff and graduate students provided tours of the renovated space, and Amber Seaton prepared a slide show illustrating the progress of the renovation. Burge Marketplace provided wonderful appetizers and drinks for our celebration. A majority of Chemistry personnel wore “got goals?” T-shirts making for an impressive show of departmental support during this event. A second Open House will be held at the completion of Phase 2, anticipated for winter 2009 or spring 2010.

As mentioned in the last newsletter, the NE wing has enough research labs and office space (faculty, post doc, graduate students, and conference room) to house eight researchers. Four more researcher groups in addition to those of Profs. Kohen and MacGillivray, have been assigned space in this wing. The completion of these spaces is currently ongoing as Part 1 of Phase 2 and we anticipate occupancy dates in October and November 2008. This leaves space for one research group available for a new hire.

Phase 2 of the State Funded Renovation Project includes the remaining space funded by our first Carver Trust Renovation Award. This renovation will create four wet chemistry research labs and offices plus adequate space to house two theoretical researchers and their group members. The Department of Chemistry received a second Carver Trust Renovation Award for work in the NW wing.

The new Chemistry Center suite of offices and the Administrative suite of offices will be completed during Part 2 of Phase 2. There are five parts to Phase 2 with the final three parts being comprised of: third and fourth floor central/SW wing; second floor central core; and 2nd, 3rd, and 4th floors of the NW wing (funded by the second Carver Trust). We anticipate completion of Phase 2 at the end of 2009 or early 2010. Some additions we eagerly anticipate include:

- space for five biomedical research groups in the NW wing
- extensive class rooms, TA resource room, reading room, wireless computer rooms, and random student seating areas on 2nd floor central core
- substantial shared instrumentation space in the NW wing
- renovated large conference room
- faculty/staff break room with adjacent Emeritus Office on 4th floor east
- graduate student break room on 2nd floor SE

The Department of Chemistry is honored to receive this second Carver Trust Award for renovation. This award coupled with UI matching funds enables us to renovate another large portion of our building that the state project did not cover. The positive impact to our building afforded by the Carver Trust simply cannot be overstated. These funds greatly influence our ability to provide the highest quality space to more of our researchers and help us attract top candidates in current and future searches.
The Undergraduate Chemistry Awards and Poster Session was held in May 2008 to honor our best and most talented students. The selection criteria for the awards were based on each student’s academic achievement, promise shown in research, and letters of nomination from a faculty member. From this list, the awards committee selected our best undergraduate students to be recognized with awards that come with monetary awards. We were very excited to present a new award this year, the Donald J. Burton & Margaret A. Burton Scholarship. Dr. Burton retired one year ago. To honor his long and successful career at the UI, his children established this scholarship account, and from that and contributions from many others, the first awards were distributed this year. A special guest, Department of Chemistry Alumni, Robert (Bob) Harris and Ann Viksnins of Viksnins, Harris & Padys, PLLP, were on hand to celebrate. Before the presentation, most of the awardees displayed posters on their award-winning research efforts. We were fortunate to hold the award reception in the new third floor north corridor of the building and it was well attended by faculty and students. The award winners were as follows:

**Chemistry Alumni Award**

**Senior Recipient** - Garth W. Strohbehn  
**Junior Recipient** - Thomas E. Heineman  
**Sophomore Recipient** - John C. Widen  

Undergraduate Awards: 2008 Brought New Awards

The Undergraduate Chemistry Awards and Poster Session was held in May 2008 to honor our best and most talented students. The selection criteria for the awards were based on each student’s academic achievement, promise shown in research, and letters of nomination from a faculty member. From this list, the awards committee selected our best undergraduate students to be recognized with awards that come with monetary awards. We were very excited to present a new award this year, the Donald J. Burton & Margaret A. Burton Scholarship. Dr. Burton retired one year ago. To honor his long and successful career at the UI, his children established this scholarship account, and from that and contributions from many others, the first awards were distributed this year. A special guest, Department of Chemistry Alumni, Robert (Bob) Harris and Ann Viksnins of Viksnins, Harris & Padys, PLLP, were on hand to celebrate. Before the presentation, most of the awardees displayed posters on their award-winning research efforts. We were fortunate to hold the award reception in the new third floor north corridor of the building and it was well attended by faculty and students. The award winners were as follows:

**Chemistry Alumni Award**

**Senior Recipient** - Garth W. Strohbehn  
**Junior Recipient** - Thomas E. Heineman  
**Sophomore Recipient** - John C. Widen  

- **CRC Freshman Chemistry Award**  
  Michael D. Schulz  
- **Merck Index Award**  
  Ashley N. Trousdale  
- **Analytical Chemistry Award**  
  Anna K. Riessen  
- **Ken Sando Undergraduate Scholarship**  
  Rachel L. Ruffie  
- **American Institute of Chemists Award**  
  Namhoon Lee  
- **Russell K. Simms Scholarships**  
  Mark V. Riofski  
  Namhoon Lee  
- **Donald J. Burton & Margaret A. Burton Scholarships**  
  Samantha J. Connelly  
  Thomas E. Heineman  
- **Viksnins, Harris & Padys, PLLP Award**  
  Garth W. Strohbehn  

Did you know that Newsletters from recent years are available in electronic .pdf format?  
http://www.chem.uiowa.edu/news/alumninews.html  

Departmental Research Production  
published papers 2007 research expenditures (FY 07)  
86 ~$4.5M  

Presidential Graduate Fellows Add Depth to Chemistry Graduate Program

The Department boasts a group of seven graduate students supported as Presidential Graduate Fellows. The Presidential Graduate Fellowship is an annual award offered by the UI Graduate College to 20-25 distinguished Ph.D. applicants through departmental nomination and is competitive across disciplines. Fellows receive substantial financial support from the Graduate College for five years including summers if they remain in good academic standing. A Fellow’s first year and final year are free from departmental assignments, and the final fellowship year is for completion of the dissertation. The Presidential Fellows in our program include William **Ames**, Sarah **Hill**, John **Kodet**, Nolan **Mente**, Rebekah **Richardson**, Natalie **Ulrich**, and Jason **Vanlerbergh**. The Department of Chemistry is extremely appreciative of the Presidential Graduate Fellowship support provided by the Graduate College.

From left: Jason Vanlerbergh, Sarah Hill, Nolan Mente, Natalie Ulrich, and John Kodet
Chemistry Faculty Start Businesses

Two Chemistry Faculty have ventured from the academic research realm to the next stage of research development by starting up research companies. Professors Mark Arnold and Gary Small have combined with Dr. Kenneth Legg to create ASL Analytical. The objective of this company is to develop noninvasive sensing technology for applications in the biosciences. Initial efforts focus on technology for monitoring glucose in people for the purpose of warning the user of impending hypoglycemia, which can be fatal if not treated in a timely manner. Company efforts also involve the creation of novel optoelectronic devices that will provide superior optical performance at the wavelengths deemed ideal for noninvasive analytical measurements. An STTR grant has been awarded by the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) to ASL Analytical. The objective of this award is to establish the feasibility of a noninvasive nocturnal hypoglycemic alarm. The measurement concept is to pass a selected band of near infrared light through a fold of skin and determine the blood glucose level from the resulting spectrum. The research associated with this award will be conducted both at ASL Analytical and within the Arnold and Small research groups in the Department of Chemistry. This award totals $967,000 for this two-year feasibility study.

A second new startup company, Terpenoid Therapeutics, Inc (TTI) has grown from the long term collaboration of Professors David Wiemer and Raymond J. Hohl (Internal Medicine and Pharmacology). TTI is an early stage drug development company that has an emphasis on development of new therapeutic agents for treatment of cancers and osteoporosis. Current leads have been drawn from compounds originally synthesized in the Wiemer labs, studied in the Hohl group for their biological properties, and covered by patents held by the University of Iowa Research Foundation and licensed to TTI. Two STTR grants from the National Cancer Institute support the further development of the current lead compounds, along with a grant from the Iowa Department of Economic Development. TTI has its home in the Technology Innovation Center on the UI’s Oakdale Campus, although research also is conducted in both the Wiemer and Hohl labs under contract from TTI.

New Postdoctoral Associates Join Research Groups

Postdoctoral scientists play a key role in the research programs within the Department. These visiting scholars provide both expertise and perspective to our research groups and help to fuel ongoing research efforts. We attract scientists from the United States and around the world to further their scientific training in our department. Each year, as some of our visitors move on to new positions elsewhere, a new group joins the Department. The new postdoctoral associates who have joined us in the past year are (research director, Ph.D. institution, and degree year in parentheses): Jonas Baltrusaitis (Grassian, University of Iowa, 2007), Lei Yao (Friestad, University of Kansas, 2006), Larissa Stebounova (Grassian, University of Pittsburgh, 2005), Nicholas Ndiele (Larsen, University of Illinois at Urbana-Champaign, 2008), and James Zahardis (Grassian, University of Vermont, 2008)

Staff Achievements and Additions

There are exciting changes, advancements, and developments among the Department of Chemistry staff this year! Hazel Kerr was promoted in spring 2008 to Business Manager II. This promotion was awarded to all College of Liberal Arts & Sciences administrators of science departments to distinguish the complexity of these areas from other CLAS units.

Six Chemistry staff received a Mary Louise Kelley Staff Excellence Award to acknowledge their contributions to the successful move from old instructional space to new labs in time for the start of the spring 2008 semester. The amount of effort expended by these individuals was remarkable and well above the normal effort expected or required by any of their job descriptions. The six staff members are: Earlene Erbe, Director, Undergraduate Laboratories; Shonda Monette and Brian Morrison, Lab Managers; Jeffrey L. Miller and David Sansbury, Computer Services Shop; and Amber Seaton, Administrative Assistant II.

Janet Kugley received the Improving Our Workplace Award (IOWA) in December 2007. Ms. Kugley was honored as a recipient of this award for her numerous efforts as manager of Graduate Student Recruiting and Admissions.

Peter Hatch, Glassblower, has experienced a fair bit of publicity over the past year. The Iowa City Press-Citizen wrote and published an article about the Chemistry Glass Shop this spring and featured Peter. The University also featured Peter and the Glass Shop on its website, advertising the diverse employee population here. In an effort to promote the Glass Shop both internally and externally, Janet Kugley, Amber Seaton, and Peter worked with our graphic artist to create “got glass?”, a 5” x 8” postcard featuring Peter and the services he offers. This postcard will be mailed around campus in August and to area businesses this fall.

Michael Estenson joined us in May as Manager of the Electronics Shop, replacing Greg Wagner who left in January after 17 years of service to the department. Mike comes from Rockwell Collins and has extensive education and experience in the field of electrical engineering. After just a couple short months, Mike is proving to be a valuable asset to the department by offering thoughtful suggestions for improved service and shop marketing.
Faculty Earn Promotions

Three Chemistry faculty have been recognized in the past year for their contributions to teaching, research and service through well deserved promotions. Claudio Margulis was promoted to the rank of Associate Professor with tenure. Since coming to the University of Iowa in 2003, Claudio has developed a prominent and promising research program in computational chemistry and biochemical modeling. Among his interests are modeling of the solution phase behavior of ionic liquids, which are touted as alternative and “greener” solvents for synthetic chemistry and chemical processing. Claudio has also made major strides in developing software for molecular diffusion in crowded environments, such as in proteins, and for the conformational modeling of polysaccharides. Since polysaccharides are common appendages on proteins and cell surfaces, and play important roles in processes as diverse as viral infection and post-translational protein targeting, Claudio’s work is gaining widespread appreciation. Claudio’s work on ionic liquids earned him a Career Award from the NSF in 2006. Claudio is also popular teacher of courses as diverse as freshman chemistry, undergraduate physical chemistry, and graduate-level statistical thermodynamics.

Lei Geng was promoted from Associate Professor to Professor on the strength of his research program on the utilization of optical spectroscopies for the noninvasive imagine of cancerous tissue, and for monitoring of separations processes, such as capillary electrophoresis and liquid chromatography. Lei is particularly renowned as a leader in the developed of two-dimensional fluorescence correlation spectroscopy for molecular and ultramolecular imaging. His work has been supported by grants from the National Institutes of Health. In addition, Lei is known as a rigorous and innovative chemical educator. He has frequently taught, and extensively revamped, the undergraduate laboratory courses Basic Measurement and Analytical Measurements, and has introduced new graduate courses in fluorescence spectroscopy and biophotonics. Lei’s service activities are extensive. He has frequently served on NIH study sections as an ad hoc member, and is currently a permanent member on the Instrumentation and System Development Study Section.

Sarah Larsen was also promoted from Associate Professor to Professor this past year, while also being honored as a Colleague Scholar by the College of Liberal Arts & Sciences. Sarah’s research program endeavors to exploit the unique ligand binding and chemical reactivity properties of zeolite materials. Zeolites are materials that have cavities of defined size and chemical composition. Sarah exploits these cavities to promote reactions that are of interest to the chemist and of benefit to the environment, such as remediation of environmentally noxious chemicals. Her research has been supported by various agencies, particularly the NSF. Sarah is noted as an innovator in teaching at both undergraduate and graduate levels. For example, in collaboration with Russell Larsen and Norb Pienta, she has introduced nanoscience experiments in undergraduate laboratory courses. In the graduate course Molecular Spectroscopy, she has instituted student portfolios, wherein students report in class on literature articles that relate to their research endeavors and that utilize the various spectroscopies discussed in the class. Sarah’s service activities match her research and teaching in quality and prominence. In 2007, Sarah was appointed Senior Editor of the Journal of Physical Chemistry, a leading journal of the American Chemical Society.

Needless to say, all of their colleagues in the Department of Chemistry are duly proud of the achievements that Claudio, Lei and Sarah have earned. We salute these faculty for earning well deserved promotions, and look forward with interest to following their various endeavors in teaching, research and service as their career stars continue to rise.

got goals? Around the world….

How far away from U. Iowa and Iowa City will the Chemistry “got goals?” T-shirts be spotted? We’re excited to find out the answer with “got goals? Around the World.” Although still in the groundwork stages, an e-mail account will soon be created for ordering “got goals?” shirts, and for digital photos to be sent to the Department. The Departmental Web site will provide a link displaying where our shirts are emerging throughout the U.S. and the world. The shirts can also be purchased directly from the Department of Chemistry. A variety of children’s sizes are available, too! Department of Chemistry alumni, faculty, staff, and students are encouraged to sport your shirt wherever your travels take you and send us a photo. We would very much like to make you a part of “got goals? Around the World.”
Imagine the Opportunities Waiting Ahead: Building a Graduate Program

The entrance of a new class of graduate students in the Department of Chemistry at Iowa is an exciting annual event for faculty, current graduate students, and staff. Twenty-four students were admitted to the graduate program for the 2008 fall semester. This brings the number of graduate students enrolled in our program to 134. Over the past several years, our department has made important strides in graduate recruiting, including increasing the number of applications, attracting more Presidential Graduate Fellows, and developing a greater national presence as reflected in the demographics of our applicant pool. The assistance of the College of Liberal Arts & Sciences (CLAS) in supporting DEO Wiemer’s request for increased TA stipends is invaluable in this revitalization. Likewise, the department is grateful for the Presidential Graduate Fellowship resources provided by the Graduate College.

During the 2007 fall semester, Iowa Chemistry faculty were invited to give 26 seminars at colleges and universities in Midwestern states, including Illinois, Iowa, Minnesota, Missouri, Nebraska, South Dakota, and Wisconsin as part of the Iowa Lectureship Series. This has proven to be an excellent opportunity for faculty to interact with students and faculty at nearby colleges and universities and provide these schools with information about our graduate program, the UI, and life in Iowa City. If your school would be interested in a visit by one of our faculty, please contact us at chemdept@uiowa.edu.

Shriner Tuition Scholarships Awarded to Three First Year Students

Three students were recipients of Shriner Tuition Scholarships for the Fall 2007 semester. John Sander, Joseph Topczewski, and Andrew Zimmerman were selected by the Graduate Admissions Committee to receive the scholarship based on their strong undergraduate academic records, honors and awards. Sander received his B.S. in chemistry from North Dakota State University. Topczewski graduated from the University of Wisconsin-Parkside with a B.S. in chemistry. Zimmerman earned his B.S. in Chemistry at the University of Wisconsin-Stevens Point. Shriner Tuition Scholarships are awarded to first-year graduate students in chemistry with preference given to U.S. citizens from the Midwest. The Shriner Fellowship was established in 2000 by Dr. Fred Raths and the late Mrs. Bonnie Raths in honor of Dr. Ralph Shriner, long-time professor and DEO in our department.

Joe Topczewski & Andrew Zimmerman

Graduate Students Receive Support from the UI Graduate College SIF

The continued success of our graduate program was recognized in 2007-08 by significant funding from the UI Graduate College Strategic Investment Fund (SIF). The SIF program is a relatively new initiative on campus that provides support for meritorious funding requests from UI graduate programs on a competitive basis. In 2007, the Graduate College generously supported a Chemistry Departmental request from the fund. The support that was approved helped the Department to maintain the competitiveness of our Presidential Fellowship offers for prospective new students, and also provided supplemental funding targeted for senior Research Assistants in externally-funded research groups who are making good progress toward their Ph.D. In Fall, 2007, an ad hoc faculty committee selected candidates from among our post-comprehensive exam RAs, including representatives from as many research groups as possible. A variety of criteria were considered, and input from candidates' research advisors was also employed. As a result, ten of our senior RAs were rewarded for their efforts with $2,000 fellowships. This was a gratifying opportunity for the Department to provide some tangible recognition and reward to our advanced graduate students for their successes. We have recently been awarded funds to repeat this process in 2008-09, so another group of our senior students will benefit from this program in the coming year.

Notes from the Editor: I hope you have enjoyed this year’s edition of the Chemistry Newsletter! Thank you to Dave Wiemer, Dan Quinn, Alexei Tivanski, Greg Friestad, Chris Pige, Vicki Grassian, Sarah Larsen, Norb Pienta, Jim Gloer, Hazel Kerr, Earlene Erbe, Jenny MacBain-Stephens, Janet Kugley, Timothy Koon, and Bettie Baumert for their contributions to the newsletter articles. A big round of applause goes out to our wonderful alumni and friends for their updates. We received an overwhelming response! We are happy to publish all of the responses! —Amber Seaton, Editor
Chemistry Faculty Begin Editorships at The University of Iowa

In October 2007, Sarah Larsen was named Senior Editor of the Journal of Physical Chemistry published by the American Chemical Society. Jennifer MacBain-Stephens was hired to serve as her Editorial Assistant.

Dr. Larsen was recently promoted to Professor of Chemistry at the University of Iowa and is also the Associate Director of the Nanoscience and Nanotechnology Institute. Larsen’s research interests are in the applications of nanocrystalline zeolites to environmental remediation, decontamination, and drug delivery. Ms. MacBain-Stephens is a graduate of New York University and has previous editorial experience at Rosen Publishing and Scholastic, Inc.

The Journal of Physical Chemistry is organized into three sections, A, B, and C which are published weekly. The editor-in-chief is Prof. George Schatz from Northwestern University. These journals contain letters, featured articles, reports of important discoveries, and various scientific comments. The Journal of Physical Chemistry A publishes studies on dynamics; clusters; excited states; kinetics; spectroscopy; atmospheric, environmental and green chemistry; molecular structure; quantum chemistry; and general theory. According to Joe Graham, the Assistant Director of Product Marketing at the American Chemical Society, JPC A remains ranked fourth in citations in Atomic, Molecular and Chemical Physics. The Journal of Physical Chemistry B publishes studies on macromolecules; soft matter; surfactants; membranes; statistical mechanics; thermodynamics; medium effects; and biophysical chemistry. According to the 2007 Journal Citation Reports data, the Journal of Physical Chemistry B remains the number one most-cited journal in Physical Chemistry with 87,658 total cites – a significant 21% increase over 2006.

The Journal of Physical Chemistry C, newly published in 2007, publishes research on nanoparticles; nanostructures; surfaces; interfaces; catalysis; electron transport; optical and electronic devices; hard matter; and energy conversion and storage.

The JPC editorial office at UI is located in 125D CB and handles manuscripts from all three sections of the journal. As of June 2008, Dr. Larsen and Ms. MacBain-Stephens have processed over 225 manuscripts for the journal.

The Journal of Chemical Education recently announced the selection of Norbert J. Pienta as its new Editor. Norb was chosen after a process that began two years ago. He assumes the role in September, 2009. As the eighth Editor, he leads a team of feature editors from around the country that participate in the review and selection of contributions, and an editorial staff responsible for production of the final product. The Journal features articles about teaching and learning chemistry, ranging from chemistry education research to projects for high school teachers and students. It also publishes software and other multimedia including video appropriate for instruction and participates in the National Science Digital Library project as a depository for chemistry learning objects. The Journal began publication in 1924 under the direction of Neil E. Gordon and is published by the Division of Chemical Education of the American Chemical Society.

The Journal has a diverse readership and tries to serve a constituency that ranges from K-12 to community colleges, four year colleges to research institutions. Besides publishing papers and articles, JCE also serves to disseminate relevant news and information. Norb has indicated several plans or innovations that include an upgraded system for electronic manuscript submission and review, the use of Senior Associate Editors to review and select contributions, and greater utility in the online version. The goal is to continue to provide the high quality content but make necessary changes to improve delivery in a world of electronic access and changing roles of journals and libraries. The editorial headquarters will move from Madison, WI to Iowa City with the establishment of Journal offices in the Chemistry Building. Norb will be joined by a managing editor and some staff, although part of the production group will remain in Madison. The term of the Editor is for five years, and Norb expects to leave a successful University of Iowa stamp on that legacy.
As the Iowa River quickly transformed from friend to foe, the waters brought a summer of challenges for The University of Iowa. Approximately 45 researchers (including faculty, post docs, graduate students) from IATL were relocated to the Chemistry Building June 13, 2008 as the threat of rising water invading IATL became a reality. The National Guard, UI employees, and countless volunteers worked tirelessly to protect the buildings from damage, but in the end the water found its way into IATL. Current estimates show that the flood caused $232 million in damage to the university overall, including $40 million to IATL—$8 million for the building and $32 million for its contents. Many of the displaced researchers were located in new teaching laboratories that are unused during summer session. We have recently learned that IATL will not be ready for occupancy until some time after September 15, 2008, resulting in the need to find instructional lab space to teach approximately 800 incoming freshman for the fall semester. In order to save the IATL researchers from moving twice, our instructional lab team is preparing to re-occupy old labs in the west wings; not a desirable solution, but a necessary one. Fortunately, Chemistry researchers are not housed on the first floor of IATL, although many utilized the services of the Micro-fabrication Laboratory there. Millions of dollars in damages to facilities and instrumentation occurred when water entered the first floor. Our hearts go out to the researchers adversely affected by the flood and to the entire UI in general as we clean, rebuild, and prepare for the start of the fall semester. Chemical and Engineering News featured the UI flood in their August 4, 2008 issue. Please see this link for the full story: http://pubs.acs.org/cen/science/86/8631sci1.html

Special thanks to Jackie Jensen, Jill Hartz, Janet Kugley, and David Wiemer for photographs
Upcoming Special Events

MWRM 2009

Preparations for the 2009 Midwest Regional Meeting of the American Chemical Society, to be hosted by the Iowa Section of the ACS, are beginning to pick up momentum. The meeting will be held at the Sheraton in Iowa City, October 20-23, 2009, coinciding with National Chemistry Week - "Chemistry: It's Elemental". During this week of increased visibility for our field, we are fortunate to have ACS President-Elect Thomas Lane tentatively scheduled to attend. Themes for the meeting will include Energy, Health, and Environment, all of which are not only "Elemental" but also will showcase topics of regional and local importance. For more information, contact members of the organizing committee, which include UI Chemistry Associate Professor Greg Friestad and Professors Mark Arnold and Dan Quinn.

Chemistry Department to host Ida Beam Distinguished Visiting Professor

The Department of Chemistry is excited to welcome Michael P. Doyle, Professor and Chair of the Department of Chemistry, University of Maryland, as an Ida Beam Distinguished Visiting Professor. Professor Doyle is internationally recognized in the fields of synthetic organic and physical organic chemistry for his seminal contributions in the development of asymmetric rhodium catalysts for organic transformations. Professor Doyle is also a leader on the area of chemical education, especially as it relates to the inclusion of undergraduate students in cutting-edge chemical research. Professor Doyle’s efforts have resulted in numerous nationally competitive honors and awards. Most notably, he has received the James Flack Norris Award for Outstanding Achievements in the Teaching of Chemistry, the George C. Pimentel Award in Chemical Education, an Arthur C. Cope Scholar Award, and a National Institutes of Health Merit Award. Professor Doyle will visit the department in the 2009 Spring semester and more information will follow when details of his schedule have been finalized.

Wawzonek Lecture

This fall’s colloquium schedule includes a special lecture endowed in honor of Stanley Wawzonek, UI Chemistry Professor from 1944-1988. This is a long-standing lecture series in the Department which is marked by a tradition of outstanding notable organic chemists. This year’s lecture will be given in the Chemistry Building on October 6, 2008 by Professor David Gin of the Department of Molecular Pharmacology & Chemistry at Memorial Sloan-Kettering Cancer Center (New York, NY), and will be followed by a reception. For more information, contact the Department of Chemistry.

Alumni Updates and Memories

In Memoriam:

J. Reid Shelton, 96, passed away on December 31, 2007. He was a professor emeritus of chemistry and macromolecular science at Case Western Reserve University. He earned a B.S., M.S., and Ph.D. in Chemistry at the University of Iowa in 1933, 1934, and 1936.

W. Keith Weeber, 98, passed away on February 4, 2008. He received his B.A. in Chemistry in 1931, and his B.S. and M.S. in Chemical and Biochemical Engineering in 1933 and 1935, respectively.

Joseph J. Baron, 80, passed away on February 18, 2008. He received his B.S. in Chemistry in 1949.

William B. Hopkins, 78, passed away on February 23, 2008. He received his B.S. in Chemistry in 1953.

Jason R. Martin, 38, passed away on February 25, 2008 from fatal injuries in an automobile accident. He was born in 1970 in North Carolina, and graduated from Ames High School in Ames, Iowa and received his Bachelors of Science from the University of Iowa Chemistry Department in 1993. He went on to graduate from the University of Iowa College of Medicine in 1999. Jason was a board certified radiologist with Iowa Radiology in Des Moines, IA. Survivors include his parents, Jim and Linda Martin; and brother Eric Martin. He was preceded in death by his grandparents, Fred and Amelia Cox and Joel and Ida Martin.

A. Lynn Anderson, 67, of Antioch, IL passed away March 18, 2008 at his home. He was born August 26, 1940 in Fort Dodge, Iowa the son of the late Leonard and Nellie (Berkland) Anderson, living in Alma, Michigan before moving to Antioch in 1975. Lynn graduated from Luther College in Decorah, Iowa with a B. S. Degree in 1962. The University of Iowa with a Masters Degree in Chemistry in 1966 and his PHD in Chemistry in 1970. He worked for the St. Clair Oil Research in Harvey, IL, The Michigan Chemical Corporation in St. Louis, MI, where he held several patents, and the Stepan Chemical in Northbrook, IL. He had taught and lectured at the University of Wisconsin Parkside, Kenosha, WI and formerly at Triton College at the University of Iowa. He was an associate member of the Ullensvang Lutheran Church in Thor, Iowa and a member of the Shepherd of the Hills Lutheran Church, McHenry, IL. Lynn was an avid Bow Hunter and Sportsman. On June 29, 1968 he married Sandra Kleckner in St. Ansgar, Iowa. Survivors include his wife Sandy, his son Eric Anderson of Richmond, IL and daughter Karen (Todd) Weir of Wonder Lake, IL.
Bonnie M. Puls Rath, 79, passed away on April 3, 2008 in Danville, IN. She graduated in 1951 from the University of Illinois with a BS degree in Home Economics. She was a homemaker and a member of the Messiah Lutheran Church. Survivors include her husband, Fred W. Rath; son, Richard A. (Carmen) Rath; daughter Susan K. (Scott) Hooper; sisters Donna Jean McLaughlin and Carol Buckles; grandchildren, Bradford and Jeremy Rath; granddaughters, Sarah and Meredith Hooper. She was preceded in death by her brother, Eldon Puls.

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Alumni Notes (degrees and research advisor’s name, if known, are in parentheses)

William Shore (Ph.D. 1953, Tanford) has been travelling some since his wife, Elizabeth, passed away in 2004. He traveled to Israel in the fall of 2005; Turkey to see a solar eclipse in the spring of 2006; Austra-lia and New Zealand in the summer of 2007; and Spain is upcoming this June 2008, with Israel again in September this year. William says that Liz would have loved these adventures. He takes many pictures on his travels.

Patricia Sandy Bunville (B.S. 1955) Patricia married Lyle G. Bunville (Ph.D. Chemistry UI, 1959). She regrets to inform us that Lyle passed away in Jan. 2005. Lyle worked at Argonne National Lab and then at Hercules, Inc. in Wilmington, DE until he retired. His research advisor at Iowa was Charles Tanford. Patricia is now retired as of 1996. Her last job was 16 years at the University of Delaware as a Staff Assistant in the Department of Chemistry and Biochemistry.

John G. Buzzell (Ph.D. 1955, Tanford) John spent 30 years as a Sr. Research Chemist for DuPont Photo Products Dept in Research Labs in Parlin, NJ and Towanda, PA. Since retirement in 1985, John has lived in Towanda, moving in 1989 to State College. John’s avocation is sustainable forest management and stewardship. He works with individuals and small groups to promote both of these endeavors. The initial impetus came from owning, and the stewardship of, woodlots in his home state of Wisconsin. John’s experience as a graduate student at Iowa was something he will always treasure, even though only four years, because of the friendly and helpful atmosphere in the department among students and staff and a good experience both in the married student barracks and the town.

Harry A. Eick (Ph.D. 1956, Eyring) After spending 41 years in the Michigan State University Chemistry Department, Harry retired in 1999 and moved to Traverse City, MI to be closer to his youngest daughter, her husband, and their five children. Three-year-old Madison and Harry are great pals. One of Harry’s memories is the fifth floor fire in the Chemistry Building and all that water rushing down the stairs.

E. Thomas (Tom) Strom (B.S. 1958) After graduation, Tom went on to get an M.S. in nuclear chemistry from UC-Berkeley in 1961 and following that got a Ph.D. in physical organic chemistry from Iowa State in 1964, working for Glen Russell. Tom then joined Mobil Research and Development Corp. in Dallas, but shortly thereafter he entered the U.S. Army for two years as a 1st Lt. to fulfill his ROTC obligation. Tom served at the quartzmeter research facility in Natick, Mass. He returned to Mobil in Dallas and worked for them almost 32 years. Tom then became an Adjunct Professor of Chemistry at the University of Texas at Arlington, where he continued to do research and teach half-time. Tom and his wife, Charlotte, have two children, and four grandchildren.

Philip J. Garry (B.A. 1961) Philip is currently Professor Emeritus at the University of New Mexico, School of Medicine, Department of Pathology.

Robert S. Craig (B.S. 1962, Wawzonek) always enjoyed Dr. Waw-
Duane Kruse (B.S. 1970) Duane has been living and working in Turkey since 2002. He left Turkey on June 22 to take a position on the opposite side of the earth in Guam. He says it’s not quite back to the USA, but it is American territory, with American stores and benefits. Duane is still a Hawkeye fan and he misses Hawkeye sports.

William A. Feld, Ph.D. (Ph.D. 1971, Stille) William just completed 36 years in the Department of Chemistry at Wright State University. In his time at Wright State, he had 64 M.S. thesis students, two teaching awards, a University outstanding faculty award, and the continuous pleasure of interacting with a diverse array of students both foreign and US. The students continue to bring depth and perspective to not only his research he does with them but also to his (and his family's) personal life.

Jim League (M.S. 1971, Davis and Eyman) Jim has helped develop biological processes to biodegrade hazardous materials including creosote, DDT, dioxins, and more mundane things like petroleum. He is working on processes to extract usable petroleum from tar pits and tar sands/shale. Some of Jim’s memories include watching movies of the Chemistry Building burning down and attending UI musical productions. The Man of LaMancha stands out in his memory as being one if not the best production he has ever attended. The musical skills and abilities of the performers has not been matched anywhere. The Chicago Symphony came and performed in the Union Ball Room following the UI Symphony concert. The Des Moines Register reviewer commented that the UI presentation equaled, if not surpassed, the Chicago one. Watching UI hold Illinois on 3rd down from the 1 or so to run out the clock and win leaving the Illini as the only team in the Big 10 that was winless that year. Things have surely changed with both teams. Walking the alley between the AXE House and the Chemistry/Botany Building in negative 20 degree weather and having a friend tow his Corvair five or six blocks before it would start. It had a manual transmission and was air cooled. The starter could not turn the engine over even one time. He remembers swimming and taking saunas in the Field House, then freezing on the walk back to the AXE House.

Paul J. Zimmer (B.S. 1971, Buchanan) Paul is currently a Math and Science Teacher at Sullivan High School, Chicago, IL, where he teaches Algebra, Geometry, Chemistry, Biology, and Physics. Paul has been a High School Teacher for 10 years. Prior to his education sojourn, he worked for 25 years in Food Research and Development as a Research Chemist.

John A. Erbland (B.S. 1972, Pietrzyk) John worked 23 years in quality control at Cook Composites in Burlington, Iowa. Then he worked at General Electric for 12 1/2 years in West Burlington, Iowa. John is retiring now.

Terry Rooney (Ph.D. 1972, Friedrich) After leaving Iowa City, Terry worked in industry at Air Products (Linwood, PA), then Hewlett-Packard (Avondale, PA) before moving to California in 1980 to work for Spectra-Physics Analytical (SPA), where he stayed until 1998. Terry’s career at H-P and SPA was concentrated in the field of chemical instrumentation development, specifically gas and liquid chromatography and mass spectrometry, and the software which controls these devices. Somewhat ironically, he never used chromatography in graduate school but he enjoyed instrumentation development, and that's what led to his job at H-P. Over the years, Terry became more and more involved in software. When Terry left SPA, he started his consulting career in analytical chemical software and later started his own company (PC & Mac Resources), which he still operates. Terry and his wife of 41 years, DiAnn, now live in a Del Webb retirement community near Sacramento. They are active in their local community; he is the president of the PC club and DiAnn is vice-president of the sports car club (they now own a Nissan 350Z, the latest in a succession of Z-cars they have owned). The 240Z was introduced in 1970 while they were in Iowa City but Terry had to wait until he had an industry job before he could afford to buy one. Terry and his wife now spend a lot of time traveling and visiting with their grandchildren, who live in San Jose. They are wine enthusiasts so they travel often to Sonoma and Napa to check out the latest wines and restaurants. Terry and his wife have nothing but fond memories of their four years in Iowa City, where they attended virtually every football and basketball game, and often went to Doc’s and the Airliner after the games.

Mary F "Frankie" Winegardner (B.S. 1974) Mary is currently enrolled at the University of Arizona in the Integrative Medicine Fellowship. She works in the Mayo Clinic in Radiation Oncology practice.

Gary R. Buettner (Ph.D. 1976, Coffman) Gary is currently a Professor in the Free Radical and Radiation Biology Program here at Iowa in the Department of Radiation Oncology. He also is the director of the ESR Facility in the College of Medicine. Gary has been very active in the field of free radical biology, with an emphasis on the chemistry and biochemistry of these important species. His research has focused on the role of free radicals and antioxidants in cancer biology and cancer treatment. Gary is the immediate past president (2004-2006) of the leading scientific society in this area of science, the Society for Free Radical Biology and Medicine. Gary still enjoys Iowa City and The University of Iowa. His heart sinks when seeing the damage the recent floods have done to the University, many businesses, and residents of the area.

Mitchell D. (Mitch) Erickson (Ph.D. 1976, Frank) Mitch is currently the director of Northeast Operations, Interagency and First Responder Coordination, Science and Technology Directorate, U.S. Department of Homeland Security. He coordinates DHS’ Science & Technology activities with other federal, state, and local agencies in the Northeast (NJ to ME). He works with appropriate organizations in the Northeast to integrate vertically among the various organizations and horizontally across all threats. Mitch has had various technical and management positions. Most recently he was the Director of DHS’ Environmental Measurements Laboratory for over a decade. Dr. Erickson’s prior research in environmental science and analytical chemistry has developed novel technologies, identified sources and fates of pollutants, investigated chemical reaction conditions, and produced improved analytical methods, particularly with respect to PCB’s, chlorinated dioxins and furans, and radionuclides. He has published two books—Analytical Chemistry of PCBs, (2nd Edition) and Remediation of PCB Spills. He holds one patent, is the author of over 150 technical publications, and has given over 160 technical presentations. Rick C. White (Ph.D. 1977, Buckles) Since graduating from Iowa, Rick has taught at his alma mater, Sam Houston State University in Huntsville, Texas. He spent five years as department chair, and last summer, was a Visiting Professor at the Universitait Siegen in Siegen, Germany. Rick and his wife teach a Maymester class called “Discoveries in Chemistry and Textiles” in which they take students to five towns in Germany as well as Paris and discuss famous scientists (many of whom won Nobel Prizes), their lives, how the times in which they lived influenced their work, the work they carried out, and how their efforts continue to impact our lives. Rick says he misses the beautiful autumn days on campus at Iowa.

Timothy J. Lafond, P.E. (B.S. 1978) Timothy was recently named Executive Director of Environmental Engineering & Risk Management for Johnson Controls, Inc. in Milwaukee. He misses the old AXE initiation and roaming around up on the top floor of the old Chemistry Building. Timothy enjoyed helping his high school sophomore do her chemistry and he is surprised by how much he remembers (thank you Ron Pflaum, Ed Buchanan, and David Cater). Timothy’s advice to all current undergraduates: take time to enjoy yourself and don’t hesitate to sit in on some of the special symposia and lectures. You can learn a lot.
Lyn Alexander North (B.S. 1980) Lyn married her AXE "brother" Jim North (BS UI 1981, PhD Biochemistry U Iowa 1993). Most of their wedding attendees were also their AXE brothers, including the best man, Dave Rethwisch, and maid of honor, Vickie Roettger. Lyn works part time keeping the science professors in line at Indian Hills Community College. She is partially a TA, a stock room assistant, a buyer, and a safety technician. Lyn works full time on her horse farm.

H. Robert (Bob) Goltz (Ph.D. 1981, Davis) Bob joined The Dow Chemical Company right out of school and has stayed there ever since (despite a warning from some faculty). For about 24 years now, he has been working on product and application development in ion exchange. This has lead him to develop a wide variety of separations for a wide variety of applications. Right now, Bob is working on removing trace contaminants from drinking and waste water around the world. A favorite memory for Bob would have to be softball games, wandering the outer regions of the old Chemistry Building, and BS sessions with his colleagues. Bob says, "By the way, the remodeled building looks great! It is going to be a wonderful facility for doing research."

Anthony L. Markham, MD (B.S. 1981, Goff) Anthony joined the Emergency Department of The Finley Hospital in Dubuque in the fall of 2006 after 14 years at Covenant Medical Center in Waterloo. His oldest daughter, Kathryn, graduated with a B.A. in Art History from the University in May 2008. She is the third graduate from the University in Anthony’s family. Anthony’s wife, Barbara, earned her B.B.A. in 1981 and her M.B.A. in 2006. Anthony’s most memorable exchange with Dr. Goff, and the only time he remembers he was ever even partially right, was arguing the synthesis of boron trifluoride after the Advanced Inorganic Chemistry final. Dr. Goff had scored his synthesis incorrect but Dr. Goff offered him the opportunity to prove he was right. Fortunately, Anthony’s proposed method was used commercially. Dr. Goff did point out that it was not what he had taught and on that point he was correct! Anthony is sorry to learn of Dr. Goff’s retirement. A new generation of students will never be able to appreciate the fine teacher he is.

Eric T. Shimomura (Ph.D. 1982, Goff) Eric is currently working as a Forensic Toxicologist for the Armed Forces Medical Examiner Services. He has good memories of the overall graduate experience and for the support and outstanding example given to him by his advisor, Dr Goff.

Robert J. Harris, Ph.D. (B.S. 1986) Since graduating from Iowa in 1986, Bob earned a Ph.D. in chemistry from the University of California (Berkeley) and a Law degree from Widener University in Delaware. He is a founding partner of the Intellectual Property law firm of Visknins Harris and Pady, PLLP in Bloomington, Minnesota. Bob’s favorite memory from his time at Iowa was meeting his wife, Lisa. They now have three boys.

Gregory J. Snow (B.A. 1986) after graduating from the University of Iowa, Gregory worked briefly as a production chemist (Bio-Rad Laboratories, California) before enrolling at Palmer College of Chiropractic West in San Jose, CA. His social and academic development during his years at UI allowed Timothy to flourish in his chiropractic education, where he graduated Magna Cum Laude in 1990. After six years in private practice, Timothy became a clinical professor in the public clinic for Palmer College West, then in 2003, he became the Dean of Clinics for Palmer’s West Campus. What Timothy misses most about the University of Iowa is the buzz and anticipation that permeated the campus, city, and state leading up to most every major sporting event; as well as the personal discovery, growth and development that occurred in many social environments, from dorms, to the Quad, to the bars, during his four years spent there.

Jim Kling (B.S. 1989) after graduating in 1989, Jim joined Eli Lilly as a chemist for two years before graduate school to get an M.S. in chemistry. Jim finally concluded that he wasn’t cut out for life in the lab, so he turned to science writing and has been a freelance writer since 1995.

Alagappan (Alagu) Thenappan (Ph.D. 1989, Burton) Alagu has been employed since graduation with Honeywell Int. Inc.

Hans Erik Bakken (B.S. 1990, Messerle) Hans graduated from residency in neurological surgery from the University of Iowa, School of Medicine in 2001. He is currently on active duty with the United States Army. Hans was deployed to Iraq in support of operation Iraqi Freedom in December 2005 till he returned on December 2006. He is stationed in Hawaii and scheduled to deploy again to Iraq at the end of June.

Hong An (M.S. 1991 Gloer) Hong obtained a Ph.D. in Chemical Engineering from Columbia University in 1999. He worked for Millipore Corporation for a few years in viral clearance technology R&D for therapeutic protein manufacturing processes and is currently a co-author of a patent in this field. With his growing interests in medical and health care advancement, Hong co-founded Galaxy Institute with geriatric expert, Dr. Juergen Bludau, of Brigham and Women Hospital in Boston, providing knowledge based health care information consultation to seniors and their families worldwide, especially for elderly with aging health conditions. UI was his first study place in the USA and he had met so many great friends here, some are still in close contact with him. Recently, he met former Congressman, Mr. James Leach, of Harvard Kennedy School, a UI alumni, in Boston and it refreshed lots of great memories of his years at UI. Hong’s family lives in the Boston area with his wife, Xiangwei Zhang, a physician at Mass Eye and Ear Infirmary, his two daughters, Miranda (11) and Isabella (2). Hong is looking forward to hearing more exciting news from the UI and UI Chemistry Department.

Hou-Jen Tsai (Ph.D. 1991, Burton) Hou-Jen is currently a Professor and Colonel at the Institute of Technology, National Defense University in Taiwan. Hou-Jen took six excellent courses under Professors Arnold, Burton, Eyman, Gloer, Messerle, and Quinn while pursuing his Ph.D. degree. He remembers visiting the UI from Taiwan in 2004, 2006, and 2008. Hou-Jen hopes his son, Henry, an organic major masters student in Taiwan, will pursue his Ph.D. degree in the Chemistry Department at the UI next year.

John W. Tillotson (M.S. 1995, Glof) For the past twelve years, John has been a faculty member at Syracuse University in the Department of Science Teaching. He recently completed a six-year term as Executive Director of the National Association for Research in Science Teaching (NARST). At the present time, John is the Principal Investigator on the $2.5 million NSF-sponsored IMPACT Project which is a multi-university study examining the links between preservice teacher education experiences and science teachers’ beliefs and classroom practices across different career stages. John and his wife, Becky, have four children ages 10, 9, 6 and 4. The thing he misses most about Iowa City is pizza from Pagliais!

Stephen Treimer (B.S. 1995) Since graduating, Stephen has earned an M.S. from the University of Delaware under Dennis H. Evans in 1997 and a Ph.D. from Iowa State University under Dennis C. Johnson in 2001. Stephen worked for Mass Spec Facility in the Chem Building from 2001-2004 before moving to the University Hygienic Laboratory working on chemical threat (warfare agents, metabolites, toxins) identification, quantitation, and preparedness including working with and training first responders in Iowa for field detection of chemical threats. They are subprojects with Homeland Security, EPA, and the FDA. Some of Stephen’s greatest memories while an undergrad at Iowa were playing racquetball at the Rec. Center and having Wine & Cheese parties at the AXE House.

Lois Zook Gerdau (Ph.D. 1996, Leddy), was promoted recently to Associate Professor with tenure at Muskingum College in Ohio.

Todd A. Barker (B.A. 1997) Todd’s experiments are not conducted
in the lab anymore and are now in the commercial real estate market, primarily in Iowa, but also elsewhere. He is a commercial real estate broker in Cedar Rapids, Iowa and represents clients, and is also involved with several private partnerships that purchase and manage commercial projects. While it may seem surprising to some, the professors, the scientific method, and many of the critical thinking skills honed in the science halls of Iowa have been a tremendous help in his current endeavor.


Gary DeBoer (Ph.D. 1998, Young) Since graduating from UI in 1998, Gary has been teaching chemistry at LeTourneau University in Longview, Texas and during the summers he has been very lucky to have obtained summer fellowships at NASA, the U.S. Air Force Research Lab, and the Naval Research Laboratory. Gary’s family has fond memories of their life in the Hawkeye Court apartments, living with brilliant people from all over the world. They also remember the great Cambus service that connected them at Hawkeye Court with the downtown campus. Both of these, the University Apartment system and the UI Cambus service, are unique experiences of UI that made it one of the most enriching times of their lives.

Aaron M. Peck (B.S. 1999) Dr. Aaron Peck is currently an Assistant Professor at the Skidaway Institute of Oceanography in Savannah, GA where he is working to understand the sources, fate, and ecosystem consequences of pharmaceutical, personal care, and other unregulated compounds in aquatic systems. Prior to joining the faculty at the Skidaway Institute, Dr. Peck was a National Research Council Postdoctoral Fellow in the Analytical Chemistry Division of the National Institute of Standards and Technology. There, he developed methods for the analysis of flame retardants, antimicrobial compounds, and other emerging environmental contaminants in water, sediments, and biological tissues.

Shelley Minteer, (Ph.D. 2000, Leddy) was promoted to full professor at St. Louis University. She also received the St. Louis Award of the American Chemical Society and the Young Investigators Award of the Society of Electroanalytical Chemistry. Her research has focused on developing enzyme immobilization membranes that can be used to increase the stability of biosensor and biofuel cell electrodes and the incorporation of both direct and mediated bioelectrocatalysis into anodes and cathodes. In 2003, she cofounded Akemir to commercialize this technology.

Shawn Goldsmith (B.S. 2001) Shawn is now working as a perfusionist in Kokomo, IN. He earned his perfusionist certification at the University of Iowa. Shawn just had his second child, both boys: Ryne, 3, and Hayden born April 10.

Pablo Molina (Ph.D. 2003, Jensen) Pablo is currently moving to North Carolina from Murray State University where he spent five years. Pablo gives his gratitude to the Chemistry faculty and fellow graduate students for their kindness and friendship while he was in Iowa.

Angela Hunt Wolf (B.S. 2003, Leddy) Angela had been around Iowa City in the College of Pharmacy since completing her degree until moving to West Lafayette, IN to start graduate school in Medicinal Chemistry and Molecular Pharmacology at Purdue University in 2007.

Henry R Diggelmann (B.S. 2004) Henry just finished medical school and will start residency at the University of Iowa in otolaryngology.

Wayne Gellett (Ph.D. 2004, Leddy) has been promoted to the Director of Chemical Systems at Akemir, the company founded by Shelley Minteer (UI Alumni from St. Louis University), with her former student Nick Akers, to commercialize their record stable enzyme based biofuel cells.

Nitish Agrawal (Ph.D. Enzymology 2005, Kohen) After graduation, Nitish took a Postdoctoral Research Fellow with GE Global Research in Niskayuna, New York. Soon after, Nitish then left GE for a Postdoctoral Research Associate in the Department of Biochemistry at the University of Nebraska-Lincoln. Nitish is now a Postdoctoral Research Fellow in the Department of Biological Chemistry at the University of Michigan, School of Medicine. Nitish thoroughly enjoyed his student life at University of Iowa. He is grateful to the University, Department of Chemistry, and Professor Koen for providing him with an excellent research environment for his doctoral studies. Nitish enjoyed volunteering at the hospital and served as College Student Leader Board member at Volunteer Services, University of Iowa Hospitals and Clinics, during his Ph.D. research studies.

Tamara Hamilton (Ph.D. 2005, MacGillivray) Since graduation, Tamara has been an NSERC Post-Doctoral Fellow at the Universite de Montreall, and in August 2008, she’ll be starting as an Assistant Professor of Inorganic Chemistry at Barry University in Miami Shores, Florida. She says hello to everyone in Iowa City!

Kim Kenne (B.S. 2005, Small) Kim is currently a 3rd year medical student at the Carver College of Medicine and continues to enjoy the Iowa City community.

Kinesha Harris (Ph.D. 2006, Franklin) Kinesha is currently doing post-doctoral research in the Molecular Endocrinology group of Dr. Wesley Gray in the Chemistry and Environmental Toxicology Departments at Southern University and A&M College in Baton Rouge, LA. Starting in the fall, she will be an Assistant Professor in the Department of Chemistry at the same university.

Steve Purtle (B.S. 2006) Steve is currently a third year medical student at the University of Iowa. He is not yet sure which specialty he would like to enter and is hoping for some enlightenment in the next year! During his junior and senior years in the Department of Chemistry, Steve was fortunate enough to be appointed as a teaching assistant for Organic Chemistry Laboratory. It was an experience that he will never forget, and he is appreciative to Drs. Tardy, Meade, and Wiemer for providing him with that opportunity. Steve also misses the interactions with his classmates, the faculty, and staff members like Shonda Monette. He is impressed by the renovations that have been done on the Chemistry building, but he will always remember the “character” of the building before its improvements!


Lizzie Gibson (Ph.D. 2007, Grassian) Lizzie is still in Iowa, working as a Research Scientist for ASL Analytical. She says it has been a good and challenging experience so far!

Chaminda Hettige (Ph.D.2007, Leddy) is working as a postdoctoral associate in Scott Calabreses Barton’s laboratory at Michigan State modeling biofuel cells.

Addison Killean Stark (B.A. 2007) Addison is entering his second year in the Technology and Policy Program at MIT. He is researching alternative transportation fuels from gasified cellulosic biomass. Addison misses the small town feel of Iowa City. Iowa City offers all of the culture of a big city while not being crowded. Now, as an Iowan in a big city, he often finds himself yearning for the open space of Iowa!

Luke Haverhals, (Ph.D. 2008, Leddy) is working as a postdoctoral associate in Paul Trulove’s laboratory at the Naval Academy working on molten salt systems.

Murat Unlu (Ph.D. 2008, Leddy) is a postdoc in Paul Kohl’s laboratory at Georgia Tech working on batteries and fuel cells.
Your vital support works all year long…………..

Your financial support is as vital as ever for us to remain a vibrant and growing Chemistry program in an era of uncertain state and federal funding. Your generous and important annual donations provide crucial funds to support a variety of research and teaching endeavors by the Chemistry Department including:

- **scholarships and awards** for outstanding graduate student researchers and teachers (recruiting and retention)
- **student travel grants** to encourage presentations of research at regional and national scientific meetings
- **scientific instrumentation** purchases and upgrades for departmental research and teaching

- **building infrastructure upgrades** to facilitate student interactions in the building (e.g., break areas and reading rooms)

Attendance at national scientific meetings exposes our students to state-of-the-art research and publicizes our continuing research successes at The University of Iowa. Your generous financial support increasingly provides important funds to supplement and bridge the gap between university funding and the real costs of our research and teaching missions. They help us retain current faculty members and continue to draw in the best and brightest new faculty and students. As our renovation project continues in earnest, our developmental funding needs will only increase. Join us in guiding our Department strongly forward into a successful second 150 years of Chemistry at The University of Iowa!

For more information about private support for the Department of Chemistry, contact Emily McCarty at The University of Iowa Foundation, Levitt Center for University Advancement, P.O. Box 4550, Iowa City, Iowa 52244-4550; (319) 335-3305 or (800) 648-6973; e-mail: emily-mccarty@uiowa.edu.

For convenience, you may use our Chemistry Department’s new direct web-based giving page (http://www.givetoiowa.org/chemistry) to donate to several of our more popular funds including the Department of Chemistry Development Fund, the Chemistry Education Fund for undergraduate instruction, and the Ralph Shriner Graduate Student Fellowship Fund.

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Alumni Updates for 2008 Chemistry Newsletter

An update is a great way to reconnect with your former classmates and professors!

Send your replies (attach a separate sheet if needed) by mail to: Department of Chemistry, c/o Chemistry Newsletter, University of Iowa, Iowa City, Iowa 52242-1294 or email us at: chem-alumni@uiowa.edu

Name:

Degree information (years at UI, type of degree and year earned, UI faculty advisor):

Address/phone number/e-mail:

Current and past career positions:

Tell us about the significant events in your life and career since leaving the University of Iowa. Feel free to include any recollections (and photos?) from your years in our Chemistry Department.