



Department of Chemistry

New Department web address: <http://www.chem.uiowa.edu/>

Breaking News: Major Building Construction is Underway to Greatly Expand Research and Education Programs (see page 6)

The View From the Front Office

If you were to walk through the Chemistry Building today, it would be hard to miss the physical changes taking place. Significant parts of the building have been removed, including the large auditorium where so many students took general chemistry classes (300 CB), two smaller classrooms used for more advanced classes, seminars, and colloquia (321 and 221 CB), the former Chemistry Center (237 CB), and the old Chemistry Stores (135 CB). In these places we can now see the actual floors of what will be our new instructional laboratories. We have real-time webcam photos that you can view at <http://info.chem.uiowa.edu/> to see for yourself. Furthermore, the NE wing, space that once was occupied by the Biological Sciences (Botany) Department, has been gutted and new chemistry research labs are starting to take shape. While the construction and renovation of these spaces proceeds, we plan for the renovation of other parts of CB and the complex set of moves for our research groups that will continue for at least two more years.

While it's easy to see the changes taking place in the physical facilities of the Department of Chemistry, in some ways they are just a symbol of other deep-seated changes taking place. We have continued to reinvent our faculty, with

the retirement of one long time stalwart (Harold Goff) and the recognition of another (Mark Arnold appointed as Green Chair), the departure of one young colleague (Jan Jensen to the University of Copenhagen) and the addition of another (analytical chemist Amanda Haes). We've also added a new staff position to help us address the needs in our undergraduate labs, a position now held by Angelique Eslami. New people have joined us in established positions including the Director of Undergraduate Laboratories (Earlene Erbe), in Chemistry Stores (Andy Lynch), and the Chemistry Center (Lin Pierce). After a class of 34 graduate students joined us in fall 2005, and a class of 31 joined us in fall of 2006, our graduate program has reached a total enrollment of 140. The College of Liberal Arts & Sciences has continued to support competitive TA stipends, the Graduate College has appointed 8 of our current students as Presidential Fellows, and a GAANN grant from the Department of Education continues to support a number of our graduate students. Recruiting efforts already are underway for two faculty positions, as well as next fall's class of new graduate students.

As we look ahead this year, the only constant is the expectation of continued change. Yet change always affords op-

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portunities, and I remain certain that our dedicated faculty, staff, and students will meet new challenges as they arise. With the support of the College of Liberal Arts and Sciences, the Graduate College, our alumni, and our many, many friends, we will continue to make the most of each opportunity as this Department always has.

David Wiemer

By the Numbers — Fall 2006 Teaching and Research in the Department of Chemistry	
27	tenure/tenure-track faculty
5	visiting assistant professors
2	lecturers
140	graduate students
125	undergraduate majors/minors
20	postdoctoral associates
3	research scientists
23	professional staff

Continued Growth in Analytical Chemistry with Nanospectroscopist Addition

We are very happy to introduce the newest addition to our faculty, Professor Amanda **Haes**, who joins our Analytical Division. She comes to our department from the Naval Research Laboratory in Washington D.C. where she was a National Research Council Postdoctoral Associate. She received a B.A. from Wartburg College in Waverly, Iowa in 1999, an M.S. from Northwestern University in 2001, and a Ph.D. degree in Physical/Analytical Chemistry from Northwestern University in 2004. Haes arrives here with a long list of honors and awards to which she has recently added a nationally prestigious *Camille and Henry Dreyfus Foundation New Faculty Award*, marking the beginning of what is sure to be an exciting and productive academic career. Her research interests are focused on the microscopic and spectroscopic characterization of luminescent and plasmonic nanostructures and their integration with microfabricated devices. She envisions that



combining these technologies will create a well-controlled environment to study the properties of these nanostructures and lead to the development of novel biological sensors.

Few of you will believe that Haes is pictured here in her completely renovated 111C laboratory. Many of you will remember the dark and eerie 111C basement room that over the years (since it was Stwalley's laboratory) served as a TA office hours location, as a student lab safety quiz computer center, and had a wire-caged storage area with miscellaneous departmental artifacts. Thanks to Carver Trust renovation funds (see pg 6), we turned the 111C "dungeon" into a welcoming and modern laser spectroscopy laboratory for Haes and her research group. Join us in welcoming her aboard for a long and exciting research and teaching career at Iowa!

Honors Abound for Many Chem Faculty

University: Several of our faculty received well-deserved accolades for teaching and research excellence from the University. In recognition for his inspired teaching of undergraduate organic chemistry, Professor Dan **Quinn** received a 2006 *Collegiate Teaching Award* (one of only 6 awarded). He also serves as our department's *Director of Undergraduate Studies*. As no good deed goes unpunished, Professor Norb **Pienta**'s outspoken passion for undergraduate chemical education research likely contributed to his selection by the Provost as the *Director of the University's Center for Teaching* in Fall 2005. He is settling into his new position nicely and has helped garner major national research grants on curriculum reform. Professor Len **MacGillivray**'s very productive early career was recognized with a 2005 College of Liberal Arts and Sciences *Dean's Scholar Award*. Last, but not least, Professor Mark **Arnold**'s distinguished academic career was recognized in 2005 with a named Chair position. He now holds the *Edwin B. Green Chair of Laser Chemistry*. Arnold continues to serve as Director of the Optical Science and Technology Center.

National: Len **MacGillivray** is also the recipient of a prestigious and very competitive *American Chemical Society Cope Scholar Award*, whose purpose is to recognize and encourage excellence in organic chemistry. Only 10 Arthur C. Cope Scholars are named annually and only two in Len's age group. He will be honored at a banquet during the Spring 2007 ACS

National meeting. MacGillivray's recent research on organic semiconductors was also profiled in the February 20, 2006 issue of *Chemical & Engineering News*. Professor Claudio **Margulis**' past success and future potential in computational chemistry was recognized by a 2006 *National Science Foundation CAREER Award* for a research project entitled "Structural and dynamical heterogeneity in room-temperature ionic liquids. How do we engineer them to obtain the most solvent induced excited-state photoselectivity?" This 5-year NSF grant (Theoretical and Computational Chemistry) supports Margulis' research through his critical pre-tenure years. Margulis joined our Chemistry Department in 2003, after a postdoctoral period at Columbia University. He received a Ph.D. from Boston University in 2001 and an undergraduate chemistry degree in 1996 from Universidad de Buenos Aires in Argentina, which is his native country.



(from left) Quinn, Pienta, Margulis, MacGillivray, and Arnold

For Grassian It's Been a Very Good Year!

For the past few years, Professor Vicki **Grassian**'s research success has received increasing internal and external recognition. In 2005, she was elected to become a *Fellow* in the *American Association for the Advancement of Science* (AAAS), a very prestigious national honor. Then in 2006, she received a *Regents Award for Faculty Excellence*, which is one of the most significant honors awarded to successful established professors in the Iowa Regents University system. She also served as the co-Chair for an *NSF Workshop on Sustainability and Chemistry*. Her recent funding success has numerous highlights including multiple research grants for her and her collaborators totaling in excess of \$2.5 million. Much of Grassian's research involves a microscopic investigation of reaction chemistry (mainly atmospheric processes) occurring on environmentally relevant solid surfaces, including nanoparticles. She is also actively involved in collaborative studies examining the implications of nanoscale materials on human health. In recognition of her guiding efforts with these successful nanoscience programs, Grassian was named by the Office of the Vice President for Research as Director of the new *Nanoscience and Nanotechnology Institute* on the UI campus in Fall 2006 (<http://www.uiowa.edu/~nniui/>). She and her co-Director, Professor Sarah **Larsen** (Chemistry), are actively recruiting a varied palette of researchers from across

campus to foster new and interdisciplinary nanoscience research studies, with a focus on environmental aspects of nanoscience and nanotechnology.

Grassian's career at Iowa is impressive on many fronts. Since arriving at UI in 1990, she became the first woman in our Department to successfully navigate the tenure process and be promoted to full professor. During this time, she trained 20 Ph.D. students, 50 undergrads, and 15 postdocs and visiting scientists. Grassian's research success is clearly shown by the over 110 scientific articles and books published and more than \$10 million in research funding received over the past 16 years. Join us in congratulating Vicki on her mushrooming success and recognition and wishing her more of the same for the myriad of challenges that lie ahead for the next 16 years!



Grassian engaged in lively discourse after a research seminar

UI Chemical Research Production in 2005	
published papers	research expenditures
95	~\$4.3 million (fiscal 05 - 06)

Chemistry Benefactors Providing Sustaining Endowments for a Strong Future

John H. **Witte**, Jr. is a well-known benefactor to our Chemistry faculty, stemming from his long-term endowment that has provided financial support to our department since the middle of the past century. Witte attended the University of Iowa and studied chemistry, later earning a pharmacy degree. His chemistry knowledge helped him expand his family's Burlington, Iowa paint business in the 1920's (John H. Witte and Sons), later branching into successful commodities trading and banking businesses. Witte maintained a strong interest in scientific pursuits including astronomy, and funded several telescopes that eventually became the John H. Witte, Jr. Observatory run by the Southeastern Iowa Astronomy Club. He also established a sustaining endowment for UI medical and chemical research that, *to this day*, continues to provide faculty with funds to purchase instrumentation and other research tools that are greatly needed by graduate students for their thesis projects. The Witte funds are a critical bridge that fill in gaps in research funding and aid in our research growth.

One early beneficiary of Witte's support for UI Chemistry research was Dr. Fred **Raths**, who earned his Ph.D in 1954 working with Professor Ralph Shriner. Raths dissertation gratefully acknowledges a John H. Witte and Sons fellowship that helped make the research possible, and Raths is now himself a Departmental benefactor. Raths earned a B.S. chemistry degree from the University of Illinois in 1950. His organic synthesis tendencies were strongly entrenched when he came to the University of Iowa for graduate studies where he pursued further synthetic organic work with Shriner, developing strategies for the synthesis and isolation of organic dienes from epoxides and other reactive intermediates. Raths' research also explored practical synthetic applications, as his thesis describes sending 50 grams of heptanediol to a USDA laboratory for testing as a mosquito repellent. After graduating from Iowa, he began work at Dow Chemical and later moved to the newly established Buckman Laboratories, and researched novel chemical strategies for the synthesis of compounds that

could be used to control the growth of microorganisms. In the 1960-1970's, Rath and colleagues at Buckman Laboratories obtained over a dozen patents for organic sulfur-containing compounds for use as fungicides and pesticides.

In our 2001 Newsletter, we announced Dr. Rath followed up on the Witte philanthropic tradition by establishing his own UI Chemistry legacy. As we enter the current century, Fred Rath and his wife, Bonnie, began generous donations to build a sustaining endowment for the *Ralph Shriner Graduate Fellowship Fund* that has continued unabated for the past half decade. Proceeds from this growing endowment have begun to provide financial support to graduate students, primarily from the Midwest region, in the early stages of their graduate career. As this fund grows, its influence is becoming more and more ap-

parent in our graduate recruiting, retention, and support efforts. Other Chemistry alumni who wish to contribute to this growing graduate student fellowship endowment should feel free to direct contributions to the UI Foundation or use our new giving web site (see box below) where you can make a direct contribution to the Shriner Fund or several other Departmental funds. Help join the Witte and Rath traditions of sustainable contributions to develop our chemistry undergraduate and graduate programs for decades to come!

New UI Chemistry Giving Web Site

Your generous contributions support people and scientific research such as you read about in this newsletter. For ways to support UI Chemistry see pg. 15 or our new web site at:

www.givetoioowa.org/chemistry

Goff Makes an "Early" Retirement Dash

Professor Harold **Goff** has been a linchpin of Iowa's Inorganic Division for three decades. He arrived at the University of Iowa in 1976 following a postdoctoral stint at the University of California, Davis. His educational roots are Midwest-centric, earning B.S. and M.S. degrees from the University of Missouri, Columbia and a Ph.D. from the University of Texas, Austin. His research interests spanned a range of metalloenzyme catalytic and structural chemistry, with a particular focus on porphyrin-based systems. Goff's research group became particularly adept at isolation methods and renowned for spectroscopic investigations of paramagnetic metal porphyrin systems. He served on prestigious National Institutes of Health (NIH) research study sections for more than 15 years. His research program was funded for many years by the NIH and the National Science Foundation. Goff's long and productive 30-year career produced over 100 publications, and provided academic research challenges for 17 Ph.D. graduates and similar numbers of M.S. graduates and postdocs or visiting scientists, in addition to many undergraduates. Several of his former group members embarked on their own university careers in the US, Korea, and Indonesia or applied their formidable spectroscopic skills to industrial research positions at places such as Abbott Labs and American Cyanamid.

Even if Harold Goff avoided succumbing to overtures to take on the top departmental leadership DEO role, he worked tirelessly at equally important grassroots levels for many years, keeping our research enterprise thriving and successful. Goff is one of the most level-headed and practical professors in the Department. His Midwestern roots and sensibilities shone through on many occasions during challenging faculty delib-

erations. He is frequently the voice of reason in faculty decision-making and is well-known for his focus on rigorous science and a desire for excellence that benefits the Department's reputation. Goff served as Director of the UI High Field NMR Facility continuously from 1983 until his retirement. He guided the evolution of the NMR spectroscopy at UI beyond its 90 MHz days, starting with one 360 MHz system (funded by the NSF and University) and growing the facility into four systems topping out at 600 MHz today.

We are fortunate that Harold is becoming an active emeritus and has settled comfortably into our emeritus office in CB. His other colleagues look forward to availing themselves of his expertise in departmental administration and research areas for many years to come. Please join us in sending best wishes to Harold as he embarks on an active retirement lifestyle that probably includes several automobile repair projects, a few carpentry adventures (without injuring kneecaps), and many annual RAGBRAI trans-Iowa bike rides in the July heat!



Burton, Messerle, Eyman, Wiemer, & Quinn present an engraved UI "retirement" chair to Goff

Presidential Fellows Hit Record High



(from left) Soebbing, Graduate College Dean John Keller and Associate Dean Sandra Barkan, Kodet, Ulrich, and Menté

The arrival of our fall 2005 graduate student class brought 34 new graduate students to the Department of Chemistry and raised our total graduate enrollment to a new high of 129. Even as the number of our incoming graduate students has grown in recent years, the strength of our graduate classes has grown as well. One indication of this is the record number of Presidential Fellows now enrolled in the Department. The Presidential Graduate Fellowship is an annual award offered by the UI Graduate College to a very select group of incoming students nominated by various Departments who are recognized as the strongest students in their class. Our Fall 2005 class brought two new Presidential Fellows to our ranks (John **Kodet** and Natalie **Ulrich**). These two new Presidential Fellows join six others who already are part of our program (William **Ames**, Steve **Deyrup**, Sarah **Hill**, Nolan **Menté**, Sam **Soebbing**, and Jason **Vanlerberghe**) and raise the total number of Fellows in Chemistry to a new record high of eight. These students represent key additions to our program, and bring to us not only their own abundant talents but also a significant portion of their own financial support. Because the Graduate College only awards about 20-25 Presidential Fellowships each year, and these awards are distributed across the 108 programs of the Graduate College, this is certainly a sign of our graduate students' competitive strengths. It is also a sign of the significant support that the Graduate College has sent to the Chemistry Department in recent years, and that support is deeply appreciated.

Graduate Student Achievements Honored

University: The Department is very pleased to announce several significant awards earned by graduate students in our department over the past year. Annalisa **Jordan** received a 2006 *Graduate Teaching Award* from the University's Council on Teaching. Joseph **Tesene** received a newly instituted *L. B. Sims Outstanding Master's Thesis Award* in 2005 for his battery and electrochemistry research with Prof. Johna Leddy. The annual UI James F. Jakobsen Graduate Conference, sponsored by the UI Graduate Student Senate, gives students great experience describing their research projects to the university community. Several Chemistry graduate students received honors for their presentations in the Math and Physical Sciences and Engineering section in the recent years: Luke **Haverhals** (Leddy group, 2nd Place in 2005), Ioulia **Skortsova** (Geng group, Honorable Mention in 2005), and Sujith **Perera** (Gillan group, Best Presentation Award, 2006). Several of these awards receive support from the UI Graduate College and we gratefully acknowledge their tireless efforts in improving educational opportunities and recognition for our graduate students.

National: Stephen **Deyrup** (Gloer group) received a poster award for his presentation at an American Society of Pharmacognosy meeting in 2005 and is now a postdoctoral researcher at Cornell University. Following up on her Nobel Laureate meeting last year, Elizabeth **Gibson** (Grassian group) was awarded a prestigious *Department of Energy Graduate Research Environmental Fellowship*. This fellowship is part of the DOE's Global Change Education Program to promote student training in support of their global change research activities. She spent part of this fall performing research at the Pacific Northwest National Lab. Following in Gibson's footsteps, Anatoliy (Tony) **Sokolov** (MacGillivray group) was also selected from a national competition to represent the US at the *56th Meeting of Nobel Laureates* in Lindau, Germany in June 2006. He joined hundreds of other students from around the world for several days of seminars by Nobel Prize winners and eminent scientists who described their research and outlooks on the future. We are sure that taking part in such a unique experience and meeting the Laureates will have profound long term influences on our Sokolov's global research outlook.

Graduate student awardees who we were able to pry away from the lab bench for this photo are (from left) Haverhals, Sokolov, Jordan, and Skortsova



The Rise of the Phoenix: Chemistry Renovation and Reconstruction Speeds Ahead

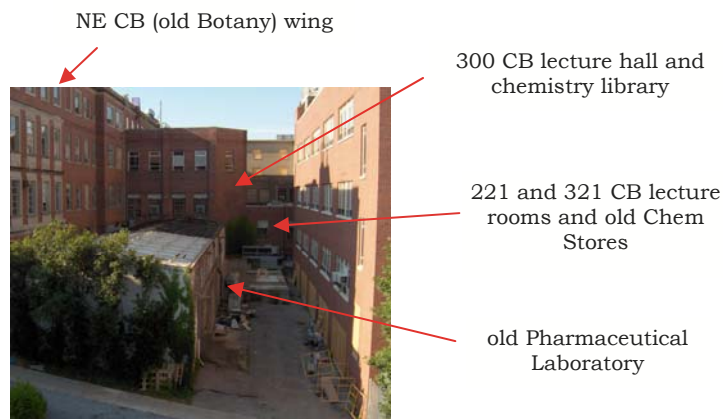
In last year's newsletter, we reported that the initial stages of our major **Chemistry Building (CB) renovation** and new construction efforts were taking shape. After one year, the new Chemistry Stores is such a convenient, modern, and safe user facility that very soon no one around here will remember the eccentricities of the old Chemistry Stores location. Many of you will remember that this space was woefully inadequate to safely store the volume of chemicals and solvents that the department needs to support its instructional and research missions. The new space meets modern standards for chemical safety, and is beautiful as well.

We are very fortunate to have strong support from the University and State of Iowa as we embark on this major financial infrastructure renovation project. Primary support for the CB renovation comes from a \$35.2 million award from the State of Iowa in 2004. While this state funding is very significant, there were several important ancillary renovation areas that were not covered by these funds. Thanks to the valiant efforts of Professors Arnold and Small, with key assistance from Hazel Kerr, Amber Seaton, and Prof. Wiemer, the Department of Chemistry was awarded \$2.85 million in August 2005 by the Roy J. Carver Charitable Trust and \$1.4 million in matching funds from the University of Iowa. The Carver renovation components will be undertaken at the same time as several phases of our major state-funded renovation that will run through late 2007. The first fruits from the Carver support lead to a jaw-dropping transformation of the 111C storage area into the new Haes Labs (see photo on page 2). Other Carver components include renovation of the X-Ray Diffraction Facility and laboratories on both the southeast and southwest wings of the 3rd and 4th floors.

With regards to the state-funded renovation and new construction, the CB northeast wing (former Botany area) underwent a complete "deconstruction" last year and it is now literally being rebuilt from the cement floors and support pillars outward (see photo below left). This wing now sports the first appear-

ance of new exterior windows that look wonderful and will eventually grace every window in CB (see NE wing windows in pg 2 photo)! Work is proceeding steadily in this wing with utilities and drywall installation. Fume hood and casework installation will take place in Spring 2007.

As the northeast wing was being gutted last year, the current CB building footprint was also literally cored out nearly to bedrock, leaving a gaping hole in the center where the old Chem Stores and the three major CB lecture rooms (300, 221, and 321) once stood (see photos below). The current CB occupants have been treated to close-up views of modern building construction as crews anchored a new foundation to the existing CB structure, and then quickly and systematically started



Rebuilding the CB core in early 2006



pouring cement into steel-reinforced forms floor by floor (see photos at right). The current plan is to have all five floors of the new central core of CB laid down by November. This renovation is taking shape in impressively visual ways!



Pouring the new floors in Fall 2006:
It's great to see CB growing upward
and outward so quickly!



The impact of these projects has been dramatic. They have already created a state-of-the-art research suite from space that was in very poor shape and substantially underutilized, improved the safety and aesthetics of Chemistry Stores, and will contribute significantly towards University energy conservation efforts. In less than two years, the completed renovations and new construction will yield a suite of modern undergraduate laboratories and allow the Department to continue its aggressive plans to expand the faculty in cutting-edge areas of research. Stay tuned for more updates in future newsletters on the greatest transformation to the UI Chemistry infrastructure that has occurred in the past 40 years!

Undergraduate Awards and Degrees Span All Chemistry Disciplines

Our Chemistry undergraduates showcased their scientific discoveries at our annual *Undergraduate Poster Session and Awards Presentation* in May 2006. This event was originally scheduled for April 14th, but the major Iowa City tornado the previous night delayed it! As you can see from the photos, the session was filled with vibrant scientific conversations. This year's *Chemistry Alumni Award* recipients were Gillian **Woodburn** (senior), Julia **Brimeyer** (junior), and Mark **Riofski** (sophomore). Other awardees were Addison **Stark** (*Ken Sando Undergraduate Scholarship*), Randy **Pho** (*American Institute of Chemists Award*), Michelle **Fox** (*Analytical Chemistry Award*), Majd **Haddad** (*Merck Index Award*), Samuel **Anderegg** (*CRC Press Freshman Chemistry Award*), and Michelle **Fox** and Laura **Parker** (*Russell K. Simms Scholarship*). Through the continuing generosity of many alumni, we were able to provide a cash prize for each of these awards and it was very much appreciated by all of the awardees.

Our department continues to train chemists at an increasing rate with 19 undergraduate Chemistry bachelors degrees awarded during the 2005-2006 year (twice as many as last year!). Congratulations to these dedicated and hardworking undergraduate chemists and best wishes to all of our recent graduates!

Dr. Thomas DeVore (B.S. Iowa, Ph.D. Iowa State) received the 2006 Ronald T. Pflaum Outstanding Advisor Award from the National AXE Chemistry Fraternity. He established a local AXE branch in 1991 at James Madison University in Virginia where he is a Professor of Chemistry.

Send us your alumni update today describing your adventures in science, business/industry, academics, life, and your favorite UI memories!
(see info on page 16)



(from left) Haddad, Pho, Fox, Woodburn, Brimeyer, Anderegg, Parker, and Professors Bowden and Larsen



“Social” science discourse among faculty, students, and postdocs at the poster session

Imagine the Opportunities Waiting Ahead: Building a Graduate Program

The 2005-2006 academic year continues the recent exciting trend of bringing great graduate classes to Iowa. The applicant pool is larger, more diverse, and more qualified every year, and our graduate student population is at an all time high, with over 140 students. This success is dependent on a number of outreach efforts that are serving to bring Iowa to the minds of potential students and advisors alike.

Iowa Lectureship Series: Organized by Professor Darrell **Eyman**, 15 faculty volunteered their time to visit local colleges such as Loras, Truman State, Carleton, Grinnell, University of South Dakota and many others this fall. This gives our faculty the opportunity to interact with faculty and students at nearby colleges, describe their research, and give an overview of our graduate program and University environment. These are our regional academic recruiting ambassadors!

New Brochures Completed: The admissions committee [Professors **MacGillivray**, **Small**, **Margulis**, and **Pigge**] completed a new set of beautiful brochures and materials that showcase our department to potential students. Check out our website for a pdf version that should appear soon!

Working Weekends at Iowa: For the seventh time, the Department hosted students and faculty from local colleges for a two-day workshop on research opportunities at Iowa. Participants brought samples or research problems and worked with Iowa faculty and graduate students to collect and interpret data and engage in social networking. The 7th WW@IA workshop, organized by Professors **MacGillivray** and Sarah **Larsen**, showcased *X-ray Crystallography and Computational Chemistry* and was attended by more than 30 participants (group

photo below). During the farewell dinner, faculty visitors, who attended the workshop with their students, presented their own research results to the audience. Professor Claude **Mertzenich** (Luther College) spoke on metal-organic frameworks and Professor Jim **Hamilton** (UW-Platteville) described creative chemical methods to clean high precision optics.



Working Weekends Fall 2005 group photo with Market Street and CB visible in the background

Got Goals? Our Department of Chemistry T-shirts are popping up all over! Perhaps you've seen one in your area. The shirts are part of a broad energizing publicity campaign spearheaded a few years ago by Prof. Sonya **Franklin**. The familiar gold on black logo is on nearly every recruiting item we have these days!



Janet Kugley (Recruiting & Admissions Manager) sporting a Got Goals shirt

New Postdoctoral Associates Fuel the Research Enterprise

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 the 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): Oksana **Chernysheva**, (Franklin, Saratov Plague Institute, Mikrob, Russia, 1996), De **Gao** (Franklin, Hunan University, China, 1995), John **Kirk** (Pienta, University of Illinois at Urbana-Champaign, 2005), Juan **Navea** (Grassian, Baylor Univer-

sity, 2006), Dhanya **Panickar** (Pigge, University of Kerala, India, 2006), Sri-kanta **Patra** (Rhode, Indian Institute of Technology, Bombay, India, 2005), Asif **Rahaman** (Margulis, Oklahoma State University, 2000), Courtney **Usher** (Grassian, University of Iowa, 2003), Venugopal **Vangala** (Pigge, University of Hyderabad, India, 2004), Zachary **Watts** (Friestad, Australian National University, Australia, 2006), and Junchao **Xia** (Margulis, Clark University, 2006).

Graduate Degrees in Chemistry Awarded in 2005 - 2006

This successful cadre of recent graduates will miss out on the fruits of our new renovations, but they successfully utilized our existing facilities to charge forward and earn well-deserved degrees!

We awarded 12 M.S. Chemistry degrees in the past year. Their names (degree year, advisor) and thesis titles (for thesis M.S. degree) are: Kathryn **Cavanaugh** (2006, Quinn); David **Drab** (2005, MacGillivray); Earlene **Erbe** (2006, Quinn); Brian **Hatvick** (2006, Cheatum); Michael **Hellstein** (2006, MacGillivray) *A Silicon Tagged Template for Monitoring Solid-state Reactivity*; Merryn **Janzen** (2005, Pienta); Anamika **Mubayi** (2005, Geng); Shannon **Stout** (2005, Grassian) *Adsorption/ Desorption and Oxidation Studies of 2-Chloroethyl Ethyl*

Sulfide on Nanocrystalline Zeolites; Joseph **Tesene** (2005, Leddy) *Magnetically-treated Electrolytic Manganese Dioxide in Alkaline Electrolyte*; Valerie **Van Zee** (2005, Arnold); Lu **Xi** (2005, Geng); Zhiyu **Yun** (2006, Arnold).

We awarded 11 Ph.D. Chemistry degrees over the past year. Their names (degree year, advisor's name) and dissertation titles are:

Nitish **Agrawal** (2005, Kohen) *Mechanistic Investigations of Classical and Flavin-dependent Thymidylate Synthases*; Hashim **Ali** (2005, Grassian) *Laboratory Studies of Atmospheric Particles: Heterogeneous Reactions and Phase Transition*; Qianli **Chu** (2005, MacGillivray) *Template-directed Synthesis in the Solid State: Inorganic Templates, Metal-Organic Hosts, and Computational Studies*; Tomislav **Friscic** (2006, MacGillivray) *Linear Templates and Hydrogen Bonding as General Tools to Control Reactivity in Molecular Co-crystals*; Kirsten **Kramer** (2005, Small) *Improving the Robustness of Multivariate*

Calibration Models for the Determination of Glucose by Near-infrared Spectroscopy; Sunghyuk **Lim** (2006, Franklin) *Modular Design, Characterization and Solution Structure Determination of Hybrid Metallohomeodomains*; Lingzhi **Liu** (2006, Arnold) *Identification of a Selective Glucose Spectral Signature for Noninvasive Near Infrared Measurements with Multivariate Calibration Approaches*; Sina **Odejinmi** (2005, Wiemer) *Syntheses of Bioactive Prenylated Compounds*; S. Brookhart **Shields** (2005, Franklin) *Design, Characterization, and Reactivity of Metallopeptides Based on the Metal Binding Regions of Avian and Mammalian Prion Proteins*; James **Woodworth** (2006, Larsen) *Characterization of Catalytic Materials by EPR Spectroscopy*; Dong **Xiang** (2006, Arnold) *Advances in Near-infrared Glucose Monitoring Using Pure Component Selectivity Analysis for Model Characterization and a Novel Digital Micromirror Array Spectrometer*.

These students' diligent efforts and struggles have prepared them for an ever-changing professional scientific community. The Department is proud of this group of talented Chemistry practitioners and we wish them much success in their future scientific career endeavors! Please keep in touch!



Students, staff, and faculty unwind at a Spring 2005 Departmental party

Professor Jan Jensen Pursues Computational Success Back in His Hometown

Jan **Jensen** arrived at the University of Iowa in 1997 as an Assistant Professor in Computational Physical Chemistry after Ph.D. and postdoctoral research at Iowa State University. Prior to that, he received a B.A. Chemistry degree with a minor in Math from Concordia College, Moorhead, Minnesota. He grew up in Denmark and was attracted to the US Midwest after a high school study abroad experience. Jensen was very successful in the computational chemistry research community, as evidenced by numerous local and national collaborations and international speaking engagements. Eventually his success attracted the interest of the computational researchers at the University of Copenhagen in Denmark and they pursued him with a hard-to-refuse faculty position offer. Jensen and his wife Maja, a Serbian native, could not resist the opportunity to move to Copenhagen, which puts them within a few hours of both of their families. During his relatively short nine-year career at Iowa, Jensen greatly expanded Departmental expertise and capabilities in computational chemistry and served for many years as Director of Graduate Studies. His practical and efficient approach in dealing with undesirable university obligations for the benefit of the students will also be long remembered. Jensen has a surprising sense of humor that was sparingly shown, but brilliantly wielded. We will miss Jan's influence in helping guide our Department's future, but we wish him much enjoyment with his new academic adventures back in Denmark.

Recognition and Evolution Among Department Staff

As often happens, we have had to say "Goodbye" to some of our staff in the past year, and now welcome several new people to the Department. It is sad to see these folks go, but we wish them well as they move on to new opportunities. At the same time we are eager to introduce you to our new staff members.

Tim **Orris** served our Department's research enterprise admirably during his many years in Chemistry Stores and this summer he moved on to new adventures in UI Accounts Payable Department. We did not have to look far for a worthy replacement, and Tim **Koon**, already on staff in our Chemistry Stores, was promoted and took over Orris' position. In addition, Andrew **Lynch** was hired in August 2006 to fill Tim Koon's former position. Andrew comes to us with substantial materials management experience from his previous position at Mercy Hospital in Iowa City. The two of them will work with Gene Hauge and a crew of undergraduate students to manage the day-to-day Chemistry Stores operations.

Earlene **Erbe** joined our department this fall as the new Director of Undergraduate Laboratories. Earlene is a UI Chemistry graduate earning her M.S. degree under the supervision of Professor Dan Quinn. Earlene comes to us from the University of Iowa Hygienic Laboratory where she worked for the past 17 years. Her level-headed and practical approach to problems and new challenges in this diverse job will pay dividends for our laboratory program and safety practices.

We also hired Angelique **Eslami** in February 2006 as a second Undergraduate Laboratory Coordinator. She will work

with Shonda Monette in the undergraduate laboratories preparing reagents and maintaining instruments to keep our instructional labs running smoothly. Prior to joining us, she was a quality control specialist for Schering-Plough Pharmaceutical Company in Iowa City. One memorable drug under her manufacturing and packaging supervision was temozolomide, a drug to treat brain cancer. She was previously a graduate research assistant in the University of Iowa Biosciences Program and math instructor at Northwest Vista College.

Dr. John **Kirk** joined our lecturer ranks this fall after completing a Ph.D. in Chemistry from the University of Illinois and conducting postdoctoral studies at the University of Arizona. He and Russell Larsen are running the laboratory portion of our complex 900+ student Principles of Chemistry course this fall.

Michele **Gerot** provided valuable service for many years to the faculty who teach our complex, large enrollment undergraduate courses through her management of our Department's Chemistry Center. In May, she moved on to new challenges in the University's English as a Second Language program.

We were fortunate to find a worthy successor for Michele with Lin **Pierce** (a University of Iowa graduate) who joined us as the new manager of the Chemistry Center this fall. She was previously the project assistant for the Center for Bioinformatics and Computational Biology in

At Long Last!

Our new building construction (pg 6) is the first major CB infrastructure addition since the early 1960's, which ushered in the entire NW Wing and later the 225 CB auditorium addition!

p.s. Did you know that the original CB structural plans from the 1920's show a building complex with 3 parallel wings of laboratories, rather than just 2?

the College of Engineering where she planned and monitored lab projects, grants, and budgets. Lin will work closely with faculty and students to provide administrative support for our educational mission. She arrived here just as a record-breaking crop of new freshman hit the UI campus and thus began her complex on-the-job-training while staring into the eye of a student storm!

Several staff members received awards and well-deserved professional recognition over the past year and we congratulate them on their success. In fall 2005, Amber **Seaton** was promoted to an Administrative Assistant II position. Dr. Dale **Swenson** (staff crystallographer) received a 2005 Mary Louise Kelley Professional Development Award to attend the ICDD X-ray diffraction meeting in Pennsylvania. Peter **Hatch** (glassblower) received a plaque and savings bond in recognition of his published article on glassblowing techniques in a recent issue of *Fusion*. He was also a profiled staff member on our UI staff website.

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

2005 Chemistry Nobel Prize - UI connections

Awarded for key discoveries in organometallic catalysis.
Richard Schrock (MIT) - One of his first graduate students in the early 1980's was Professor Lou Messerle.
Robert Grubbs (CalTech) - Professor Ned Bowden performed undergraduate research with him in the mid 1990's.



(upper left) Emeritus Professor Ed Buchanan and wife, Mary Lou, enjoying a faculty party at Wiemer's house [Did you know Buchanan and colleagues wired our building for internet access in the very early days of the internet?]



(upper right) Goff getting retirement advice from another recent emeritus Friedrich (left) and his wife, Rose Marie.

during his 20 years at RJR. Piehl then moved to Heublein Inc. and managed several laboratories related to the wine and spirits industry. He built a new technical center and designed and managed a Brand Development Center that created over 25 new products a year and developed a corporate-wide Total Quality Process that won international awards for the company. He was also active in the regional Connecticut business community helping create and run several technology councils. After a very productive 30-year industrial career, Piehl and his wife moved to Indonesia where he became an Executive Mentor and Head of R&D for an Indonesian company, built a new technical center, and trained over 100 scientists. During this time, he estimates he and his wife flew around the world nearly 10 times. Even in his current retirement on the shores of Badin Lake in North Carolina's Uwharrie National Forest, he consults occasionally and is a Teacher Link Fellow assisting with improving science and math education in the North Carolina public school system. Piehl and his wife feel blessed with two children and five grandchildren.

In addition to his personal history, Piehl sent in a few humorous and vivid anecdotes from UI in the early 1960's. He fondly remembers Prof. Shriner's valuable course on library information searches and Prof. Cater's amateur observatory (a telescope on the Chemistry building's rooftop) where he was introduced to star (and occasional dorm window) gazing. Piehl was also involved in the AXE house during the time it moved from its old house to the current one. He notes that Prof. Baenziger's wife assisted in the new house's interior design and remembers hosting monthly ACS meetings complete with a cocktail hour. As a graduate student, Piehl was one of the first occupants of the new (northwest) wing of CB. Finally, he recalled an "incident" where Prof. Bennett mistook a piece of chalk for his cigarette during a lecture, leading his students to present him with a piece of "ciggie-chalk." We thank Piehl for his fond reminiscences of his Chemistry days as they give color and dimension to our Department's history!

John E. Alter (1968 B.S.) recalled a particularly vivid incident with alkali metals that occurred during a freshman chemistry lecture taught by Prof. David Cater in our old, now demolished, 300 CB auditorium. Cater (who later became Alter's faculty advisor) was demonstrating the reactivity of alkali metals with water, but for some reason he inadvertently tossed a piece of potassium into the water and it exploded, generating a mushroom cloud of smoke in the room. To this day, Alter remembers the look on Cater's face (probably one of shocked surprise!). After his time at Iowa, Alter continued his education at Cornell University (1974 Ph.D. in Physical Chemistry). He spent more than 17 years at Miles/Bayer working on a variety of food protein and process research and analytical chemistry. He then became a laboratory director and later spent several years working at smaller companies before making a dramatic career change. Alter joined the chemistry faculty of Holy Cross College in Notre Dame in 1992 and recently became the Department Chair. To this day, whenever he performs his own sodium/water demos in class he's careful to use a small piece of sodium, but tells his students of Cater's surprising potas-

Alumni Updates and Memories

1940s and 1950s

Sherman W. **Rabideau** (1941 Ph.D.) sent us greetings from his current home in Fort Smith, Arkansas. After his educational years at UI (1939 - 1941), he moved on to a research career at the Naval Research Laboratory in Washington, D. C. where he worked on projects related to submarine development. One of his most memorable events during his scientific career was being called upon to join the atomic bomb project at Los Alamos. While he regretted that it ever had to be used, it seemed at the time that it did end up saving lives in the end.

Ronald J. **Wulf** (1950 B.S., 1957 M.S. Pharmacology) wrote to us from his current home in Princeton, New Jersey. After completing his Iowa degrees, Wulf moved to Purdue to complete his Ph.D. in Chemistry in 1964. Though he is retired now, his professional career has spanned several academic and industrial arenas including time spent at the University of Connecticut, then Carter-Wallace Inc., and finally as head of his consulting business (Wulf Associates).

1960s and 1970s

Bill **Voxman** (1960 B.S., Ph.D. in Mathematics) spent much of his career as a Professor in the Mathematics Department at the University of Idaho. He is now an emeritus professor and one of our eagle-eye faculty members spotted his name on a photographic exhibition at the downtown Iowa City Iowa Artisan's Gallery. His exhibition includes black and white photographs of mountains, waterfalls, and snowy farm field scenes.

Donald H. **Piehl** (1964 M.S., 1966 Ph.D. with Prof. Bennett) wrote to us praising last year's sesquicentennial (150th) anniversary newsletter and historical focus and we want to pass on updates on his diverse research and life experiences. Piehl started his career at RJ Reynolds Industries in North Carolina working on a variety of catalytic processes related to pharmaceuticals and later on aluminum and starch chemistries. He later held a series of management roles in tobacco R&D

sium display! We send Alter best wishes for an enjoyable period charting a successful course for his department's future.

Terry **Rooney** (1972 Ph.D. with Prof. Friedrich) sent us a note saying that he and his wife DiAnn recently moved into a Del Webb senior community near Sacramento, California. Despite this, Rooney still works part-time at his computer consulting company. After graduating from Iowa, Rooney worked for a number of chemical and instrumentation companies including Air Products, Hewlett-Packard, and Spectra Physics Analytical. He was active in the development of hardware and software for gas and liquid chromatography and mass spectrometry systems. He was also the computer columnist for *Today's Chemist*, an ACS publication. Rooney still follows Iowa Hawkeye football and basketball teams (there are many reasons to enjoy following the Hawkeyes these days!) and planned a fall 2006 return to Iowa for a family wedding.

Rick C. **White** (1977 Ph.D. in Organic Chemistry) writes to let us know that in spring 2006 he was fortunate to hop across the Atlantic and spend time as a Visiting Professor at the University of Siegen in Siegen, Germany where he conducted research on organic photochemistry working with Prof. Heiko Ihmels. White is a Professor at Sam Houston State University (his B.S. alma mater) in Huntsville Texas and has been there since 1988. He began his academic career at Drake University in Des Moines, Iowa, before moving to SHSU. His CV on the SHSU web site shows that White has a strong preference for sabbaticals at German universities and we wish him the best in being able to arrange future European research visits.

1980s to current

Eric T. **Shimomura** (1982 Ph.D. with Prof. Goff) writes that he currently resides in Maryland and works as a forensic toxicologist for the Office of the Armed Forces Medical Examiner.

Susan (**Bitner**) **Cardinal** (1989 B.S.) recalls a few vivid memories of her time at Iowa. For example, that organic chemistry lectures used to be given at 7:30 am - a painfully early hour! That reminiscence means that Prof. Burton was not kidding the junior faculty with his early morning lecture stories after all.....wow! While she pushed her way through organic and physical chemistry courses, it was her analytical courses that saved the day. Cardinal heard that Prof. Small's analytical course had a very challenging reputation, but she found it to be very practical and easier for her to grasp than theoretical quantum chemistry! After finishing up her time at Iowa and conducting research with Prof. Arnold, Cardinal moved to Syracuse, New York and joined a startup company (GRC Environmental Inc.) where she worked on PCB and dioxin analysis of contaminated soils. When GRC went through tough financial times, she moved to another environmental company, Galson Laboratories, and worked as an organic extractions supervisor. In 1992, she married Donald Cardinal. After 4 years at Galson, Cardinal decided to explore new career directions in library sciences. She obtained her Masters in Library Science degree from Syracuse University and is currently the Chemistry Librarian at the University of

Rochester in Rochester, New York. She finds great pleasure in collaborating with chemistry students and faculty, contributing to information technology instruction, and maintaining a constantly evolving chemistry research collection.

Dushyant **Varshney** (2005 Ph.D. with Prof. MacGillivray) moved to a postdoctoral associate position at the University of Minnesota working in the Department of Pharmaceutics after graduating from Iowa. Now he writes to relate good news that in March 2006, he joined Eli Lilly and Company in Indianapolis. He is a Research Scientist in Preformulation with an emphasis on the development of biopharmaceutics. We wish Dushyant and all of our other recent graduates much in success their first permanent career positions!

Kelli **Markham** (2004 Ph.D. with Prof. Kohen) and Dale **Miller** (2004 Ph.D. with Prof. Gillan) were married while in our Chemistry graduate program and they are now living and working in the Washington, D.C. area. They recently moved to a new house in Maryland, have one son, Ian (1 1/2 yrs old) and are expecting a second boy in January. Miller is working as a postdoctoral researcher at the US Naval Research Laboratory in D.C. He was awarded a fellowship from the American Society for Engineering Education (ASEE) to conduct research on aluminum nanomaterials and clusters.

Markham started a position with the US Nuclear Regulatory Commission in Rockville, Maryland to do technical chemical safety reviews to ensure regulatory adherence for industrial license applications for nuclear power generation. Currently she is working on chemical safety reviews for a Mixed Oxide Fuel Fabrication Facility, which is the result of an agreement between the US and Russia to peacefully dispose of surplus Cold War weapons-grade plutonium in nuclear power reactors. Markham is also likely to provide chemical expertise for new advanced nuclear reactor technologies projects developed under the Global Nuclear Energy Partnership (GNEP). This presidential initiative's goals are to reduce nuclear material proliferation risks and spent nuclear fuel accumulation.

In Memoriam

Robert E. **Buckles** (UI Chemistry emeritus faculty member) passed away peacefully in Standish, California on August 28, 2006. Buckles was a long-serving organic chemistry faculty member in our department from 1946 to 1984. He was born in Nevada in 1917 and moved with his parents, both educators, to Susanville, California in 1924. Buckles started his college education at Lassen College and then moved to University of California, Berkeley, where he obtained B.S. and M.S. degrees. He continued his education with a focus on organic chemistry and earned a Ph.D. degree from UCLA in 1942. He followed this up with postdoctoral work at the University of Minnesota funded by a DuPont fellowship and then spent a few years as an organic chemistry instructor at the University of Minnesota before joining our faculty in 1946. At that time, our organic division comprised four staff members (Shriner, Wawzonek, Buckles, and Smith). During his time in Minnesota, Buckles met his first wife, Rachel and they raised two sons, Bill and

Dick, both of whom still reside in Iowa City. Rachel passed away in 1977; however, two years later, Bob was fortunate to marry Arlyne Fuller who was his constant companion for the rest of his life.

Buckles established a very prolific and successful organic chemistry research program at the University of Iowa. He directed the doctoral research of more than 30 students and was known for his concern for the student's progress and well-being. Similar to his father, who was also a teacher, Buckles maintained a life-long interest in learning and seeking out new adventures. He enjoyed mountain climbing, photography, and was an avid history and football fan. His family reports that Buckles knew the chemical history of all medications that came his way. After retiring from Iowa, Bob and Arlyne returned to Northern California's former Gold Rush region near the Sierra Nevada mountain range and Sacramento. In a smart move, he stayed low enough in elevation to avoid ever having to use a snow shovel during his retirement! According to his family, Buckles claimed to have fitted a bicycle with snow tires and mud flaps for his winter rides in Iowa City. Bob is survived by his wife, Arlyne, sons Bill and Dick, stepdaughters Roxanne and Kathy, a stepson Scott, and nine grandchildren.

LeRoy **Eyring** (UI chemistry faculty member from 1949-1961) passed away peacefully November 28, 2005. Eyring joined the University of Iowa's Chemistry Department as an assistant professor of radiochemistry in 1949 after earning a Ph.D. in Chemistry from the University of California, Berkeley earlier that year. He established himself as a distinguished authority in rare earth oxides starting with his formative years in our Department. Eyring was recruited away to Arizona State University in 1961 where he became Chair of their growing Chemistry Department. He is widely credited as being the driving force behind the establishment of solid state sciences research growth at ASU and was a founding member of the National Science Foundation's Solid State Chemistry program.

Thomas **McGee** (Ph.D. 1960, Organic Chemistry) passed away on March 7, 2006 as reported in *Chemical and Engineering News*. Our 1960 Newsletter notes that McGee and Robert Doone assisted Prof. Buckles on one of his research projects on halogen complexes, so presumably McGee conducted research in the Buckles group. He earned an undergraduate degree from Creighton University and was a graduate student contemporary with one of our emeritus faculty, Prof. Friedrich. After graduating from UI, McGee joined Dow Chemical and embarked on a 34-year career with Dow until his retirement in 1994. He is survived by his wife, Peggy, five children, and

nine grandchildren. His daughter, Kate McGee Lanigan, followed in her father's footsteps and received her Ph.D. in Chemistry from our Department in 1996 conducting physical chemistry research with Prof. Grassian. She is currently a chemistry professor at the University of Detroit, Mercy.

Howard Major **Thomas** (Ph.D. 1949) passed away on August 6, 2005 as reported to us by his son Pat Thomas. Pat notes that one of the highlights of Thomas's last few years was an Iowa City visit to see his granddaughter, Arianne Waseen, currently working on her doctorate at UI. They toured the chemistry building and took a picture of him in front of the building.

Howard Thomas was born in Nebraska in 1918 and graduated from eighth grade at the age of 12. He spent the next three years away from school while he helped out on the family farm, but later graduated from high school in 1937. He then enlisted in the Civilian Conservation Corps and spent almost a year on building projects in Nebraska and South Dakota. Thomas then went to Kearney State Teacher's College, graduating in 1942. He taught high school in Edison, Nebraska before enlisting in the 14th Army Air Corp piloting a B-24 bomber in China with the Flying Tigers. Before being sent overseas, he married his college sweetheart, Mary Porter.

After being discharged, Howard returned to school and attended the University of Iowa, earning a Ph.D. in Chemistry in 1949. He took his oral examination a day after the birth of his third daughter. After his time at Iowa, he taught at St. Ambrose College in Davenport, served in the Korean Conflict as a National Guard member (army intelligence), and then taught for five years at the University of South Dakota. In 1958, Thomas moved to Wisconsin where he taught chemistry at the University of Wisconsin, Superior, until he retired in 1982. He also taught short periods in Madison and Cape Coast, Ghana.

After his retirement, he and his wife, Mary, bought a nine hole golf course in Hayward, Wis., which they ran for nine years. They spent their summers in Wisconsin and their winters in Texas until recently when they had retired to apartment living in Minnesota close to family. Thomas was well known for his long stories about interesting times in his life. He was active in his communities, being involved in the Boy Scouts for many years, long after his children were all grown. He was a life long member of the Methodist Church, sang in the church choir and loved the old hymns. He remained an active learner his entire life, belonged to the American Chemical Society and attended their meetings throughout his academic career.

Notes from the Editors: We thank several people for assisting with this newsletter. Bettie Baumert, Michele Gerot, Lin Pierce, and Amber Seaton are gratefully acknowledged for assistance in collecting student and departmental data, and organizing alumni submissions and mailing information! We thank Janet McCune Kugley for carefully proofreading this newsletter. We hope you enjoyed reading about our recent year in Chemistry!

Ed Gillan, Chris Cheatum, and Sonya Franklin

P.S. Ed is "retiring" as Newsletter lead editor/writer/photographer/layout designer after 7 years, but you'll likely still see his literary and historical contributions in future issues for many years to come!

Thank You to All of our Annual Alumni Donors!

Due to space considerations, we are only able to acknowledge the names of a few donors above, but be rest assured that the scores of alumni who contribute to our program at smaller, but regular levels are *very much appreciated*. There is power in numbers and your donations pool together to allow us to maintain and advance our education and research endeavors!

Your vital support works wonders 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 ongoing and future 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 results 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 the first major renovation project of the new millennium begins 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 Bridget Wombacher 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: bridget-wombacher@uiowa.edu.

For convenience, you can use our Chemistry Department's new direct web-based giving page 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**.

See our new Departmental giving site (www.givetoiowa.org/chemistry) for more info!

Alumni Updates for 2007 Chemistry Newsletter

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

Send your replies by mail to (**attach a separate sheet if needed**) : 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.

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