As everyone who has been associated with Northern Illinois University is well aware, the 2007-2008 academic year was a difficult one. The tragedy of February 14 made us all too aware of the fragile nature of life. There is not a faculty, staff member, or student on campus who is not grateful for the support and encouragement they received from loved ones, colleagues at NIU and elsewhere, and alumni. Then, on April 23, just when the air seemed to be clearing, the untimely death of our glassblower of 17 years, Dan Edwards, occurred. Needless to say, we were devastated by the loss of Dan, a well-liked employee who truly loved life, his job, and the department. It would be an understatement to say that the events of this year have affected us. However, the introspection brought about by these events has helped strengthen our resolve to make our department the best it can be.

This April, the department hosted its Inaugural Alumni Assembly. The event was attended by 24 alumni from locations ranging from Pickerington, Ohio (Leonard Adzima), to DeKalb, Ill. Graduates from 1956 (Glenn Green) to 2007 (Sara Koepke), as well as current and retired staff and faculty, attended. The preceding night’s mixer allowed chances to reconaunt and discuss old and new times. Events such as the departmental move from Davis to Faraday, the move into Faraday West, road-trips following NIU’s Football Huskies 1965 trip to the Excelsior Springs, Mo., Mineral Water Bowl, and getting through those “special courses” were embellished to the nth degree! NIU President John Peters welcomed the alumni on the day of the assembly, followed by Emeritus Chair Joe Vaught’s antecdotal walk through the departmental history. Other events included a state of the department message, a tour of newly renovated Altgeld Hall, and graduate student presentations highlighting their research. Finally, alumni and faculty split into groups and developed the first seeds of what we hope will become our Alumni Advisory Group, Distinguished Alumni Selection Committee, and Collaborative Research and Student Involvement Initiative. The next department of Chemistry and Biochemistry alumni event is being planned for the Thursday and Friday before homecoming weekend in 2009.

In a world where prospective and current students rely heavily on the Web, maintenance of a high quality website is of paramount importance. With that in mind, Recruitment and Public Relations Coordinator Shannon Gates has completely revamped the departmental website, www.niu.edu/chembio. The new format is now aligned and consistent with that of the university. The site is updated weekly and is full of information useful to students, faculty, alumni, and outside individuals wishing to learn about the department. In addition to basic information such as degree programs, faculty research, contact information, seminars, etc., we are also posting employment opportunities on the site. If you have such information, please feel free to contact Shannon. And, even if you don’t have information to provide, be sure to visit the site. I know that you will be impressed.

Congratulations go out to Petr Vanýsek, whose promotion to full professor became effective August 16 of this year. The department welcomes a joint appointee, Professor and Department of Teaching and Learning Chair Paul Kelter. Paul’s expertise lies in chemical education and he is the author of a number of textbooks. In the spring semester, Paul and David Ballantine together hosted the annual departmental chemistry magic show. The department will miss Rathindra Bose, chemistry and biochemistry faculty member and vice president for research and dean of the Graduate School. After five years at NIU, Rathindra has elected to take a position at Ohio University in Athens, Ohio. Our own James Erman, distinguished research professor emeritus, has been appointed by Provost Alden as the interim vice president for research until a permanent replacement is found. The upcoming academic year will see searches to replace retired Electronics Technician Charlie Caldwell, and, of course, Dan Edwards. The searches are ongoing and we hope to fill them early in the fall semester.

Faculty research remains strong. The 2008 program review showed that the department external grant income has increased from the $2,460,000 for grants submitted during the 1995-1999 period...
Charles A. Achilles (B.S., '68) completed his M.B.A. at Loyola University of Chicago in 1972. He has been employed by the Institute of Real Estate Management for 35 years and currently serves as vice president of legislation and research. He is married to Ann Pellegrini-Achilles, and has two children: Amber, who is an assistant corporation counsel for the City of Chicago and a Notre Dame law graduate; and Brylan, who is a technical sales representative for Hitachi in New York City and an engineering graduate of the University of Illinois, and pursuing his M.B.A. at Indiana University.

Steven W. Anderson (Ph.D., '85) was recently promoted to full professor at the University of Wisconsin - Whitewater. He obtained his Ph.D. under Professor Emeritus Dennis Kevill.

Ehren Bucholtz (B.S., '93) attended the University of North Carolina at Chapel Hill, studied medicinal chemistry, and earned her Ph.D. in 1998. She taught part-time at a community college for a number of years, taught at Saint Mary-of-the-Woods for five years, and is now teaching at St. Louis College of Pharmacy. She teaches organic chemistry for about 100 students and is the organic lab director for 200 students. She also teaches a pharmacology course, “Contemporary Drug Education.” Ehren is married and has three children.

Debashis Das (Ph.D., '01) lives in Long Island, NY, with his wife, Ranu, and newborn son, Pratyush. He works at Endo Pharmaceuticals as a manager in the analytical development group. His group provides analytical support for development and FDA filing of new and generic drug products. He adds, “So far it has been a wonderful experience working in the pharmaceutical industry.”

John R. Grawe (B.S., '67) is an associate professor of chemistry at Palm Beach Atlantic University, since 1994. He completed his M.S. in 1974 and Ph.D. in 1980 at the University of Southern Mississippi. He says, “Thanks to NIU I have been able to work in research and teaching all my life. Rosalie Reynolds taught me Gen. Chem I. I still remember her.”

Ron L. Haussner (B.S., '07) has been accepted into the Midwestern University College of Pharmacy, his school of choice, starting fall 2008. He adds, “I have to thank my education that I received at NIU for preparing me to be competitive in the application process.”

Ronald R. Hennis (M.S., '69; Ph.D., '72) is currently hired as a consultant for R&D analytical development at Fontarome Chemicals (St. Francis, Wis.), a specialty chemical, pharma and flavors-fragrance company. He re-united with Charlie Spangler at the Chicago ACS Meeting in 2007; he was Spangler’s first Ph.D. student. Hennis says, “It was nice to reminisce and reflect on those moments during my time at NIU.”

Menard Heydanek (B.S., '64) received his M.S. at Utah State University in 1966 and his Ph.D. at Northwestern University in 1968. He began at Kraft Foods in R&D (1968-1971). He was then employed by Quaker Oats (1971-1994), where he retired as vice president of R&D Convenience Foods. From 1995-2006, he was owner/president of Filterfresh Coffee Service, in Des Plaines/Elk Grove.

Daniel A. Jelski (Ph.D., '85), since graduating from NIU, was a post-doc at the University at Buffalo, he went through the academic ranks at SUNY Fredonia, and became head of the chemistry department at Rose-Hulman Institute of Technology in Terre Haute, Ind. Since August 2007, he has been the dean of the School of Science and Engineering at SUNY New Paltz, NY.

Leila Maurmann (Ph.D., '06) began a new position this past spring as the NMR facility manager at Kansas State University. She had previously worked in our department as an instructor and post-doctoral researcher under Professor Rathindra Bose.

Christopher C. Mulligan (B.S., '03) received his Ph.D. in analytical chemistry from Purdue University in May under the advisement of Prof. R. Graham Cooks. He is currently a post-doctoral researcher with Prof. Zheng Ouyang in the Department of Biomedical Engineering at Purdue, and in August, he will start an assistant professorship at Illinois State University. His research will focus on the design and application of miniature mass spectrometers and forensic chemistry.

John T. Norton (B.S., '03) graduated in December 2007 with his Ph.D. in cancer biology and drug discovery from Northwestern University Medical School. He is currently a post-doctoral researcher in the same lab, but plans to move to the Scripps Institute this year to continue his training in medical research.

Victor Pinks II (Ph.D., '91) is the science chairman at Marmion Academy. As a 1972 graduate, he joined the Academy faculty in 2000. He is also CSO for Edgebrook Research, LLC, which is headquartered on the Marmion Academy campus.

Robert J. Ross (B.S., '81) earned his Ph.D. in chemistry from The Ohio State University in 1986. Ross and his wife, Sue, who also graduated from NIU with her B.S. in 1981, reside in Elmhurst. He is a patent attorney for Olson & Cepuritis, Ltd., in Chicago.

Aneta Szczurowski (M.S., ’05) and husband, Oskar, are the proud parents of Adrian. He was born November 5, 2007, weighing 8 lbs., 7 oz., and measuring 20 inches. Oskar also graduated from NIU with his M.S. in computer science.
Meet Paul B. Kelter

“Chemistry is about communicating ideas. It is about working and learning together to solve interesting and, often, useful problems relating to the nature of matter. It is about looking at our universe in a rational, experimental way. And it is about working with everyone who wishes to know, no matter whom they are, what they look like, where they come from or what they believe. This is what chemistry is and does.”

These are the ideas that have been the focus of Professor Paul Kelter’s career as an internationally known chemical educator. As a reflection of his interest in both chemistry and education, Kelter is professor and chair of the College of Education’s Department of Teaching and Learning as well as professor of chemistry and biochemistry at NIU. Professor Kelter has authored three chemistry textbooks, including Chemistry: A World of Choices (McGraw-Hill), and his recent first-year chemistry text with Mike Mosher and Andrew Scott, Chemistry, The Practical Science (Houghton Mifflin).

Professor Kelter has been honored with many teaching awards, including his favorites, the Inaugural Recipient of the “Outstanding Teacher of the Year Award” as voted by the University of Nebraska - Lincoln Student Body, and the second “Outstanding Teacher of the Year Award” as voted by the University of Nebraska - Lincoln Student Body. He comes to NIU from the University of Illinois at Urbana-Champaign, where he was professor of chemistry and University Distinguished Teacher/Scholar. Kelter’s scholarship focuses on examining the qualities of great teaching, and looking at the relationship of measures of preparation for chemistry and outcomes in the chemistry classroom.

Message from the Chair

of our last review to $3,976,000 during the period of 2002-2006. While this 62% increase is an excellent indicator, it appears that, when all proposals submitted during the 2007 calendar year are finalized, the departmental external grant income goal of $1,000,000/year will be achieved. Since the summer 2007 newsletter, new funding has been awarded for the following projects: “Superelectrophilic Considerations in Heterocyclic Chemistry” (Douglas Klumpp), “Nano-Diamond Growth and Applications” (Chhiu-Tsu Lin), “Analysis of Protein Phosphorylation by Mass Spectrometry” (Viktor Ryzhov), “X-Ray Scattering Studies of Interfaces Between Two Immiscible Electrolyte Solutions” (Petr Vanýsek), “Solar Thermoelectric Energy Conversion in Photothermal-Photoelectric Cells” (Tao Xu), and the prestigious Alexander von Humboldt Foundation award was renewed for Narayan Hosmane.

Our programs and enrollments continue to evolve and grow. In the spring of 2008, Viktor Ryzhov taught our first offering of “Chemistry of Everyday Life,” renewing the old CHEM 100 designation. Chong Zheng and David Ballantine will teach the course in the coming academic year. Elizabeth Gaillard was an integral instructor in the team-taught interdisciplinary course entitled “Introduction to Medical Physics, Radiation Biology, and Radiation Chemistry” (PHYS 459 and 559). In an effort to enhance the writing skills of our undergraduates, all chemistry majors, beginning with students entering next fall, will be required to take ENGL 250, a course entitled “Practical Writing.” The spring of 2008 saw our first M.S. teacher certification option student graduate. This academic year will have seen over 50 registrations for undergraduate research (CHEM 498 and 499). The 2007-2008 enrollment marks the highest number of undergraduate researchers this decade. The percentage of graduate students in the doctoral program has also continued to rise. In the fall of 2007, 34 of our 49 graduate students (69%) were enrolled in the Ph.D. program.

The department and students truly appreciate the donations received from alumni. As you may be aware, these funds are placed in two types of accounts at the NIU Foundation. The first is a general fund used primarily to support graduate and undergraduate student travel to national meetings. The educational gains are obvious. The primary requirement is that the student presents a poster and/or talk at the meeting. In the fiscal year ending June 30, more than $5,900 was used to support travel for 16 students. The other funds are placed in scholarship accounts. This year, more than $9,100 in scholarships was awarded to our top chemistry students to support their education. You can read more about the specific scholarship funds on page 12 of this newsletter.

It is hoped that the year finds you well and in good spirits. We wish you all the best. And, lastly, please keep in touch. Just as we share the happenings in the department, we want to hear about the developments in your careers and lives.

All the best,

Jon Carnahan
Professor and Chair
Jon W. Carnahan, professor and chair, has been elected president of the Society for Applied Spectroscopy. He began his duties as president-elect in January 2008 and will serve as president of the non-profit society beginning in 2009. Carnahan presented “Atomic Spectrometry: Overview and New Developments” at a 2008 Chicago SAS Workshop, Sample Preparation and Introduction for Atomic Spectroscopy AA, ICP-AES and ICP-MS (May 2008). The talk was co-authored by graduate students Adam Dill and Courtney Cherok.

Elizabeth R. Gaillard, associate professor with a joint appointment in the Department of Biological Sciences and adjunct professor in ophthalmology at Columbia University, New York, was recently elected to serve on the Inter-American Photochemical Society (I-APS) Advisory Board, for a term which began on July 1, 2008. The I-APS serves researchers in photochemistry, photophysics and photobiology and has over 600 members in academia, industry, and government throughout North and South America. She presented at a New Ideas in Science: Saving Lives with NIU’s Research conference, held on NIU’s main campus and attended by local area high school teachers (March 2008). She has given research presentations at two professional meetings, Association for Researchers in Vision and Ophthalmology (April 2008) and American Society for Photobiology (June 2008), and is the chair of a joint American Society for Photobiology – Radiation Research Society symposium at the American Society for Therapeutic Radiology and Oncology meeting in Boston (September 2008).

James R. Horn, assistant professor, received the NIU 2008-2009 David Raymond Grant for Use of Technology in Teaching. Horn will use the $2,500 award to develop an innovative lesson incorporating the use of wiki-technology – the same software responsible for the popular Wikipedia website. Students in two of Horn’s advanced undergraduate courses will conduct independent laboratory experiments with the aid of small laptops, a digital camera with video and photo capabilities, and wiki-based websites. Students will be required to write and edit research protocols and short reviews of their lab research projects, resulting in a collaborative-authorship resource for fellow and future students.

Narayan S. Hosmane, distinguished research professor, received a rare second invite by the Alexander von Humboldt Foundation. He’s among a very small percentage of awardees asked to return to Germany for a further three month period of research. At right, he is photographed with Helmut Schwarz, president of the Humboldt Foundation, at the Berlin meeting (June 2008). In January 2008, the NRI® Institute presented eight Lifetime Achievement Pravasi Awards to NRIs (non-resident Indians). Hosmane received one of those eight awards and a Bharath Samman Medal, both of which were presented to him by the former Prime Minister of India I.K. Gujral. Hosmane was featured in an article published by NRI Achievers magazine in its January-March 2008 issue. In March 2008, Hosmane traveled to Korea participating in a new Visiting Scholar Program. He presented a host of lectures at Korea University in Chungnam, as well as other institutes near Seoul. Following Korea, Hosmane traveled to Singapore as a visiting professor at the Institute of Chemical & Engineering Sciences (ICES).

Douglas A. Klumpp, associate professor, co-authored Superelectrophiles and Their Chemistry (Wiley, Nov. 2007). The book reviews a relatively new type of reaction in organic chemistry, the superelectrophilic reaction. His co-author is Professor George A. Olah (Nobel Laureate in Chemistry, 1994) from the University of Southern California. Most recently, the National Science Foundation has awarded Klumpp a continuing grant for three years, totaling $330,000, in support of his project entitled, “Superelectrophilic Considerations in Heterocyclic Chemistry.” This grant has put Klumpp over the $1 million mark in external funding over the course of his career.

Chhiu-Tsu (C.T.) Lin, distinguished teaching professor and distinguished research professor, was one of 18 faculty across the university to be featured at the NIU Foundation’s annual Red and Black event held in October 2007. With nearly 350 alumni, donors, and friends in attendance, the event celebrated NIU pride, philanthropy, and Faculty Excellence. In spring 2008, Lin used his Presidential Research Professorship Award to conduct research and lecture “nanoscience and nanotechnology” at Tamkang University, Taiwan. While in Taiwan, Lin also collaborated with Industrial Technology Research Institute, NanPao Resins Chemical Co., Ltd., Kinik Company, and Triplex Technology, Inc., to promote the possible commercialization of his nanocoating technology.

Larry Metcalf, storekeeper, was named Marine of the Year by the Marine Corps League. In October 2007, Metcalf attended the Installation of New Officers Dinner for the DeKalb County Marines, where he was presented with the award and recognized for outstanding service and involvement in the community. Metcalf has been serving as Quartermaster of the DeKalb County Marines since 2000.

Andy Small, laboratory manager, was inducted into the Ashford University Hall of Fame in recognition of his successful college basketball career. Prior to graduating in 1977, Small led the conference in scoring, was awarded team MVP honors as well as first team All Tournament and first team All Conference in the Catholic Collegiate Conference. He also set a school record at the time, scoring 44 points in one game.
In each issue of *The Northern Chemist*, we will “spotlight” at least one of our staff. Although their work is often behind the scenes, it’s an integral part of running a smooth operation.

Our most senior staff members (based of course, on years of service), John Tobias and Larry Gregersen, both joined the department in 1981.

If you need a computer fixed, software installed, or a new printer set-up in the Department of Chemistry and Biochemistry, then Electronics Engineer John Tobias is your guy! He provides any and all support for computers, software, and high tech instrumentation in the department. He likes the variety of his job, facing each day’s new challenges, and building strong campus connections. Tobias came to NIU in July of 1981, shortly after graduating from DeVry Institute of Technology with his B.S. in electronics engineering technology. Tobias recalls one of his first major projects, resurrecting the Varian A60 NMR with more than 100 vacuum tubes. Although successful, it was a daunting task considering he had no previous experience with vacuum tube based instrumentation. He has since overseen the department’s transition to computer controlled instrumentation. Tobias, a man of technical talent, possesses a playful personal side. He and his wife, Sarah, have been married for 11 years and live in DeKalb with their four kids (all with 4 legs: 3 dogs and 1 cat). When Tobias isn’t working or spending time with family, he enjoys playing ice hockey and professional tournament poker.

He often calls himself a “glorified toy maker.” Senior Lab Mechanic Larry Gregersen joined the department in October of 1981. He engineers and fabricates scientific equipment for the department. Gregersen works with professors and graduate students to design and construct specialized equipment for their laboratories. From microwave cavities to laser equipment to spectrometry equipment, he’s had a hand in it all. Gregersen, a man of many trades, brings a variety of experiences to his work. He completed a machinist apprenticeship and a five-year tool and dye apprenticeship after high school; served as an airborne ranger during the Vietnam War; and has been a construction worker, landscaper, auto mechanic, apartment manager, and machine job shop owner. He and his wife, Mary, have been married for almost 24 years and have two grown sons, Mike and Ryan. They reside in Rockford, where Gregersen was born and raised. Plans, however, are in the making for the couple to move to Shabbona, Ill., at least some day. Over the last nine years, Gregersen has spent most of his time outside work constructing a very unique house. He and a modest crew of friends are building a home mostly out of reinforced concrete. It’s a two-story with vaulted ceilings and 10-12 foot walls. When asked about a projected date of completion, Gregersen just laughed and said, “It’s a good thing Mary’s a very patient woman!”

**In Memoriam Daniel B. Edwards**

Departmental glassblower and forever friend, Daniel B. Edwards, 60, died on April 23, 2008, in a motorcycle accident in Rochelle. Dan, a member of our department since 1991, had planned to retire in July.

He was born on Nov. 8, 1947, in Oconomowoc, Wis., the son of Glenn George Edwards and Mary Helen Hilmer. He married Diane Berg on Oct. 28, 1971, in Okauchee, Wis.

He was a former member of St. Joan of Arc Catholic Church in Okauchee, former president of the American Scientific Glassblowers Association, a 1966 graduate of Oconomowoc High School and former soccer and wrestling coach in Oconomowoc and in Illinois.

He is survived by his wife, Diane; two daughters, Danielle Scherf, of Waukesha, Wis., and Nicole (Matthew) Williams, of Bloomington; grandchildren Alexandria and Jaiden Scherf and Kaitlyn Williams; brothers and sisters, Glenn (Marge) Edwards Jr., of Fairview Heights, Gail (Richard) Rupp, of Hartford, Wis., Dr. Keith (Virginia) Edwards, of Hacienda Heights, Calif., Thomas (Debbie) Edwards, of Waupun, Wis., and Kimberly (Steve) Jaye, of Oconomowoc, Wis.; mother-in-law, Jeanne (Jerome) VanAsten, of Milwaukee; and nieces, nephews and other relatives and friends. He was preceded in death by his parents.

“Dan was just extremely generous and kind-hearted,” says Andy Small, department lab manager. Dan had a passion for his family and many friends, for fishing, and for life.
Spring 2008 Awards

Freshman Chemistry Achievement Award ........................................... Mark Richmond & Emily Sorenson

Freshman Chemistry Achievement Awards Honorable Mention:
- Anthony Antonacci
- Caitlan Ayala
- Nathan Cooper

& Emily Sorenson

Outstanding Sophomore Award .................................................. Kristian Campbell

Outstanding Junior Award .......................................................... Matthew Tokarz

ACS Undergraduate Award in Analytical Chemistry ...................... Matthew Hurt

Chemistry Alumni Undergraduate Scholarship ................................ Matthew Tokarz & Kristian Campbell

George L. and Lillian Traister Scholarship .................................... Matthew Tokarz

Rosalie Reynolds Memorial Scholarship ....................................... Nathan Grobe

Van Acker–Duminy–Kovarik Scholarship ........................................ Heather Schmidt

John D. Graham Scholarship ....................................................... Ang Li

Kevin Cull Memorial Teaching Awards ......................................... Jay Barre & Elliott Franco

Joe W. Vaughn Teaching Award .................................................... Yuriy Pyatkivskyy

NIU Chemistry Club Outstanding
- Undergraduate Research Award .............................................. Matthew Tokarz

ACS Rock River Section Award ..................................................... Gregory Sonneson

NIU Chemistry Club Edwards-Hyland Award ................................ Erin Post

American Institute of Chemists Student Award ............................ Andrew Malanchuk

Dean’s Award .............................................................................. Larecia Knoerzer

Outstanding Senior Award .......................................................... Mindy Milosch

University Honors ........................................................................ Mindy Milosch

Outstanding Capstone Award ...................................................... Robert Hoey

2008 Dissertation Completion Award ........................................... Kiran Kumar Solingapuram Sai

2008 DCA Alternate ....................................................................... Elliott Franco

Rhoten Smith Scholarship ............................................................. Elliott Franco

University Fellowship ..................................................................... Robert Hoey

2008 graduates presented with mugs made by Glassblower Dan Edwards

Mindy Milosch

Kiran Kumar Solingapuram Sai

Jay Barre (left) and Elliott Franco

Yuriy Pyatkivskyy

Emily Sorenson and Mark Richmond
Degrees Awarded in 2007-2008

Undergraduate Degrees

AUGUST 2007
Ron Louis Hausner

DECEMBER 2007
Joshua John Bohac
Philippe Rene Gauthier
Krzysztof Klimaszewski
Paul Gregory Klisiewicz
Megan Jean Long
Matthew John O'Connor
Nicholas Weston Oney
Keval Patel
Gina Marie Ranieri
Frederick Hugo Schau
Shaun Sharrett
Adeel Tariq

Graduate Degrees (Faculty Advisor in Italics)

AUGUST 2007
Mark Alexander Zabawa (M.S.) - Narayan S. Hosmane

DECEMBER 2007
Kellen Lee Hunter (M.S.) - Jon W. Carnahan
Ang Li (M.S.) - Douglas A. Klumpp
Zhirui Wang (M.S.) - Jon W. Carnahan
Douglas Norman Bryhan (Ph.D.) - Chong Zheng
Tigabu Kassa (Ph.D.) - Oliver Hofstetter
Kaho Kwok (Ph.D.) - Jon W. Carnahan
Naw May Pearl (Ph.D.) - James E. Erman

MAY 2008
Mohini Ravula (M.S.) - Kui Shen
Sarah Julie Stoub (M.S.) - Gary M. Baker
Matthew Ryan Sheets (Ph.D.) - Narayan S. Hosmane and Douglas A. Klumpp

Graduate Student Highlights

Adam E. Dill and Courtney A. Cherok (Ph.D. candidates) presented their research in analytical atomic spectrometry at the 59th Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (Pittcon 2008) held in New Orleans in March. Dill presented his research in plasma mass spectrometry, dealing with method development for the detection of nonmetal analytes in pharmaceutical compounds. Cherok presented her research in plasma spectroscopy, dealing with the fundamentals of ionization chemistry inside an argon inductively coupled plasma. Both Dill and Cherok are fourth-year Ph.D. candidates in Professor Jon W. Carnahan's research group.

Robert J. Hoey (M.S. candidate) won an “Outstanding Poster Award” at the 2007 Current Trends in Microcalorimetry Conference in Boston (July 2007). The award included a trophy and a $1,000 cash prize. Hoey presented his poster, co-authored by his advisor, Assistant Professor James R. Horn, to an audience of international scientists from both academia and industry. The conference focused on applications of microcalorimetry in the life sciences, a technique that provides valuable information for the discovery, design and development of new drugs and biotherapeutics. Hoey and Horn’s research investigated the molecular basis of recognition of an in vitro matured antibody and used microcalorimetry to reveal important insights into the mechanism of antibody binding. Most of the work presented was acquired by Hoey as an undergraduate honors capstone research student in Horn’s lab. The judges of the poster competition were some of the top biophysical scientists in academia. Hoey was also recognized by the University Honors Program for his research. Each year, the Honors Program selects one capstone out of approximately 100 senior capstones from across the university. In April 2008, Hoey received the “Outstanding Capstone Award” in recognition of his 2007 undergraduate capstone. Most recently, Hoey was awarded a 2008-2009 University Fellowship by the NIU Graduate School.

Laura S. Murdaugh (Ph.D. candidate) presented at the 2008 Association for Research in Vision and Ophthalmology (ARVO) annual conference. Over 11,000 medical doctors, medical students and research scientists met in Fort Lauderdale, Fl., to present the latest innovative techniques, protocols and scientific studies in vision science. Associate Professor Elizabeth R. Gaillard’s research group presented groundbreaking research on the molecular basis for the degenerative eye disease known as “age related macular
degeneration” (Compositional Studies of Human Retinal Lipofuscin; L. Murdaugh, J. Dillon, S. Mandal, E.R. Gaillard). Research presented by Murdaugh suggests an alternative to the currently accepted explanation for the observed tissue damage and provides a unifying concept for many previous experimental observations. As a result, this presentation generated a great deal of interest and positive feedback from the international vision research community. The authors are currently preparing a manuscript for submission to a peer reviewed journal that describes this work. Surender R. Mandal (M.S. candidate) is also a co-author. Co-author James Dillon is an adjunct professor, with a primary appointment at Columbia University.

Kiran Kumar Solingapuram Sai (Ph.D. candidate) received a 2008 Dissertation Completion Award, while Elliott J. Franco (Ph.D. candidate) was named a DCA Alternate. Both join an impressive group of previous chemistry awardees, including the 2007 DCA recipients: Ang Li, Matthew R. Sheets, and Hao Guo. Sai also recently co-authored two peer-reviewed journal articles: “Superacid Promoted Reactions of N-Acyliminium Salts and Evidence for the Involvement of Superelectrophiles” Zhang, Y.; DeSchepper, D. J.; Gilbert, T. M.; Sai, K. K. S.; Klumpp, D. A. Chemical Communications 2007, 4032-4034; and “Knorr Cyclizations and Distonic Superelectrophiles.” Sai, K. K. S.; Gilbert, T. M.; Klumpp, D. A. Journal of Organic Chemistry 2007, 72, 9761-9764. The later study was also presented by Sai at the National Meeting of the American Chemical Society in Chicago (March 2007). This work is notable because it corrects an error that is found in many chemistry reference books and review articles.

Franco, Dill, and Sheets (all Ph.D. candidates) were selected by a committee of faculty members to present their research at the departmental Inaugural Alumni Assembly in April. Franco presented on “Knowing Right from Left: Antibodies as Tailor-Made Chiral Selectors,” Dill presented on “Studies of the Effects of Sample Introduction on the Detection of Nonmetals in LC Matrices Using ICP-MS,” and Sheets presented on “Synthesis and Catalytic Application of Immobilized Ruthenium Complexes.”

Alumni News

Michele Z. Thomassen (B.S., ’06) worked a short while in plating and coatings for a metal finishing manufacturing company upon graduation. Now she’s employed by the City of Rockford in water quality control, where she adds, “My main instrumentation method is UV-VIS Spectrophotometry.”

Tina L. Tomschin (B.S., ’99) is a research chemist at Hexion Specialty Chemicals, resides in Elgin with her husband and their son, Joshua Elliot, who celebrated his 1st birthday on July 30.

Gregory K. Webster (Ph.D., ’91) is a section manager for Global Analytical R&D at Abbott Laboratories. He reports 2008 marks the 18th anniversary of the annual “Plasma Open” golf outing held by former Carnahan group members, including A. Viscomi, J. Gehlhausen, M. Wu, and G. Webster.

Brent D. Yeager (B.S., ’04) earned his PharmD degree from Albany College of Pharmacy in 2007. He now works as a pharmacist at Rockford Memorial Hospital.

In Memoriam


Alumni Kudos

Olujide T. Akinbo (Ph.D., ’97) and fellow faculty members Michael Samide and Jody Britten of Butler University were awarded a $150,000 NSF-CCLI grant to work on the development of thematic modular laboratory experiences for incorporating problem-based learning into the undergraduate analytical chemistry curriculum at Butler University. Details of the approach have been described in a paper that will come out in the September edition of Analytical and Bioanalytical Chemistry. The focus of this work is to utilize the strengths of traditional and the more modern inquiry-based pedagogies in the delivery of analytical curriculum by using project-based, theme focused, and standalone laboratories courses to support the lecture portions of the instrumental analysis course. This approach is being used for (a) facilitating in-depth training on the whole analytical process while providing hands-on experience on multiple analytical instrumentation, (b) promoting and developing connections between multiple scientific disciplines, and (c) stimulating students to develop interest in, and ideas for, solving scientific problems.
Thank You Alumni and Friends for a Successful Inaugural Event!

The Department of Chemistry and Biochemistry welcomed over 20 alumni back to campus with a reception on Thursday, April 17, and our Alumni Assembly on Friday, April 18, 2008.

The group of 24 alumni, whose graduation years ranged from 1956 to 2007 and degrees from Bachelor of Science to Doctor of Philosophy in chemistry, had plenty to talk and reminisce about. Many of the department’s faculty and staff, as well as emeritus faculty, joined the alumni group throughout the days’ festivities.

On Friday, April 18, President John Peters kicked-off the event by welcoming the alumni group back to campus. Professor Emeritus Joe Vaughn shared a wonderfully entertaining History of the Department. Department Chair Jon Carnahan presented on the State of the Department. Graduate students Matthew Sheets (Narayan Hosmane and Douglas Klumpp, advisors), Elliott Franco (Oliver Hofstetter, advisor), and Adam Dill (Jon Carnahan, advisor) gave excellent talks highlighting their current research. Alumni toured the newly renovated Altgeld Hall, as well as the Faraday/Faraday West complex. The afternoon working groups were productive and plan on further development in three main areas: an Alumni Advisory Group; Collaborative Research and Student Involvement; and a Distinguished Alumni Award.

Join Us Next Time...

We are planning to hold our next alumni assembly the Thursday and Friday before homecoming in 2009. Dates are not yet available, but it generally lands in mid-October. We hope that you make plans to join us in 2009!!

For more pictures and information about the Inaugural Alumni Assembly, go to: WWW.NIU.EDU/CHEMBIO/AUDIENCE/ALUMNI.SHTML
Thank you alumni and friends! Due to your generosity, we again received more than $20,000 in donations for the 2007 calendar year (January - December 2007). We received $15,519.82 in individual contributions, with an additional $7,310.89 in corporate and matching funds. The NIU Chemistry Club also donated $2,000 to the Edwards-Hyland Award, which was newly renamed in special recognition of departmental glassblowers, Dan Edwards and Ed Hyland. Donations in 2007 totaled $24,830.71. Organizations listed below in italics represent corporate/matching gifts.

Michael Faraday Society ($1,000 & above)
David (B.S., '65) & Lauretta (B.S.Ed., '65) Clayton; Michael (B.S., '73) & Norma Cornell; Gary & Isabelle (B.S., '80; M.S.Ed., '87; M.S.Ed., '07) Kovarik; William (M.S.Ed., '50) & Dolores (B.S.Ed., '51) Minkema; Abbott Laboratories; American Chemical Society NIU Chemistry Club; UOP LLC

Marie Curie Circle ($250–$999)
Steven W. Anderson (Ph.D., '85); Robert M. Arduini (B.S., '85); Shuyu Lee & Xi Chen (M.S., '93); John (M.S., '75) & Sharon Daniels; Everett (B.S., '51; M.S.Ed., '56) & Clara (B.A., '51) Greinke; Ronald (M.S., '69; Ph.D., '72) & Elizabeth Hennis; Thor (B.S., '65; Ph.D., '72) & Darlene Jondahl; Charles (B.S., '57) & Gail Kemper; Robert V. Kennedy Jr. (B.S., '67); Raymond (B.S., '70; Ph.D., '77) & Leela Lohr; Raymond M. Sylvester (B.S.Ed., '53); Barry (B.S., '88) & Blenda Williams; Dennis Evans & Mary Wirth (B.S., '74); Abbott Laboratories Fund; Johnson & Johnson Fund

Mendeleev Group ($100–$249)
Thomas (B.S., '90) & Kimberly Anderson; Richard & Nancylee (B.S., '71) Arntzen; John (M.S., '74) & Mary Camp; John (B.S., '58) & Mary Davison; Danny (B.S., '83) & Laurie (B.S., '82) Fagan; Robert (M.S., '68) & Trudy Feldt; John (B.S., '51; M.S.Ed., '53) & Gilda Ferrara; David J. Grampovnik (B.S., '76); William (B.S., '72) & Phyllis Hartman; Robert (B.S., '69) & Marjorie (B.S., '69) Herman; Irma Hernandez (M.S., '90); Thomas (M.S., '79); M.B.A, '84 & Susan (M.S.Ed., '81; Ed.D., '96; M.S.Ed., '97) Hillison; Boyd (B.S., '78) & Patricia Keys; Stanley Lott (B.S., '63; M.S., '67); Kellan & Bronwyn (B.S., '93; M.S., '95) Miller; Gale (B.S., '72) & Kris (B.S., '73) Moline; Cynthia A. Pomerenereng (Ph.D., '00); Heather E. Price (B.S., '89); Ruth N. Rolf; Robert (B.S., '81) & Sue (B.S., '81) Ross; David Schroeder (B.S., '03); Peter (B.S., '82) & Margaret Sexton; Christina Szafroni (M.S., '95); Paul (B.S., '64; Ph.D., '71) & Karen Taylor; Eugene (B.S., '81) & Kathleen Turowski; Laura L. Unger (B.S., '76); Paul (B.S., '05) & Virginia Weber; Ying & Taolin (B.S., '94; M.S., '98) Wei; Genentech, Inc.

Kekulé Ring ($50–$99)
Leonard (B.S., '72) & Mary (B.S., '72; M.S., '74) Adzima; David (B.S., '70) & Anne (B.S., '70) Swanson; Ling Bei (Ph.D., '94); Patrick J. Camodeca (B.S., '83); Christopher W. Connell (B.S., '03); Ronald (B.S., '65) & Teresa Dombrowski; John & Marjory (B.S., '60) Fluegel; Steve & Bettyceyp (Ph.D., '00) Gailbreath; Michael (B.S., '63) & Katherine (B.S., '65) Guerin; Brian (B.S., '81) & Dawn Haggerty; Michael (B.S., '75) & Mary Holland; John C. Jensen (B.S., '65); Melvin (B.S., '54) & Maribel (B.S.Ed., '54) Joesten; John Kane (B.S., '73) & Arlene Delapaz-Kane; Joseph (Ph.D., '76) & Peggy Katzenberger; Lee & Simone (B.S., '82) Konner; Pamela L. Kramer (B.S., '00); Duane (B.S., '58) & Barbara Kuhl; Steven J. Layng (B.S., '75); Steven (B.S., '83) & Allyson Meredith; Nand (Ph.D., '76) & Kanak Narain; Edward L. Safford (B.S., '58); Michael (B.S., '82) & Sandra Schick; Paul & Judith (B.S., '87) Swanson; Mary C. Whitten (Ph.D., '99); Peter (B.S., '73) & Janell Zamic; Hospira

Lavoisier Associates ($49 & under)
Richard S. Banick (B.S., '82); Abhiram Bapat (M.S., '98); Peter & Nancy (B.S., '72) Bryant; Robert E. Drzymala (B.S., '72); David & Nancy (B.S., '82) Fritts; David (B.S., '73) & Nancy (B.S., '74) Getsla; Robert (B.S., '63) & Susan (B.S.Ed., '63) Hamilton; Thomas (B.S., '76) & Lorelta (B.S., '97) Hebert; Theodore & Marilyn (B.S., '67) Hofman; Jian Yu & Karen Jones (M.S., '91); David (B.S., '69; M.S.Ed., '73) & Cheryl (B.S.Ed., '69) Lippold; Richard (B.S., '57) & Phyllis McKeever; Gerald (M.S., '68) & Pearl Roth; Gary (B.S., '69; M.S., '73) & Lois (B.S., '69; M.S.Ed., '71) Seiler; Michael (B.S., '58) & Judy Smith; Emmanuel & Nellie Sullivan; Bruce C. Teipel (B.S., '72); Richard (B.S., '72) & Cynthia Thornton; Anthony S. Viscomi (Ph.D., '89); Alan Wickman (B.S., '75) & Susan Leahy; Daniel (B.S., '71) & SandraWiczer (B.S.Ed., '73)

We make every effort to acknowledge the generosity of our alumni and friends, but at times the paperwork does not arrive before press time for our annual issue. If you made a donation this year and are not listed (the above is in recognition for the 2007 calendar year), please be assured that your gift is appreciated and will be acknowledged in The Northern Chemist next year. If for any reason you wish to remain anonymous, please tell us on you contribution form, or when the volunteer from the Huskie Telefund contacts you.
Let Us Hear from You...

Please update information about yourself. We look forward to hearing from you and hope you will also consider making a contribution to the department.

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ADDRESS

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DEGREES RECEIVED
AT NIU:

DEGREE      YEAR

DEGREE      YEAR

OTHER:

DEGREE/INSTITUTION      YEAR

DEGREE/INSTITUTION      YEAR

NEWS ABOUT YOURSELF AND/OR YOUR FAMILY:

Yes! I would like to help the Department of Chemistry and Biochemistry achieve its goals by making a contribution. Please use my gift of $___________ for:

☐ General contribution in area of greatest need
☐ Chemistry Alumni Undergraduate Scholarship (CAUS)
☐ Kevin Cull Memorial Scholarship Fund
☐ John D. Graham Memorial Scholarship Fund
☐ Chemistry Club Edwards-Hyland Award
☐ Rosalie Reynolds Memorial Teaching Scholarship
☐ Van Acker-Duminy-Kovarik Scholarship Fund

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Please send form, and check if applicable, to: Shannon Gates, Department of Chemistry and Biochemistry, Northern Illinois University, DeKalb, IL 60115-2862 (or e-mail updates to slgates@niu.edu)
Top Scholars of 2007-2008

On May 8, the department held its annual Chemistry Club Awards Banquet, recognizing our top chemistry students for their academic achievement, service, and leadership. Thanks to the generosity of our alumni and friends, many student awards were presented including the following endowed scholarships:

Chemistry Alumni Undergraduate Scholarship (CAUS) is awarded to a continuing undergraduate based on overall academic excellence. The 2008 recipient is Matthew Tokarz.

Kevin Cull Memorial Teaching Awards are presented to outstanding graduate teaching assistants at all levels of instruction. The 2008 recipients are Jay Barre and Elliott Franco.

John D. Graham Scholarship is given to a graduate student based upon scholarship, including both academic and research achievements. This year’s winner is Ang Li.

NIU Chemistry Club Edwards-Hyland Award is given to a junior who is an active member of the Chemistry Club. The winner is Erin Post.

Rosalie Reynolds Memorial Teaching Scholarship is given to a junior or senior based on overall grade point average and intention to pursue a career in teaching. The 2008 recipient is Nathan Grobe.

Van Acker-Duminy-Kovarik Scholarship is awarded to an incoming undergraduate or graduate student with preference given to students planning to study inorganic chemistry and/or pursue a career in teaching. The 2008 recipient is Heather Schmidt.

For a complete listing of awards and recipients, see page 6 or visit www.niu.edu/chembio/giving.