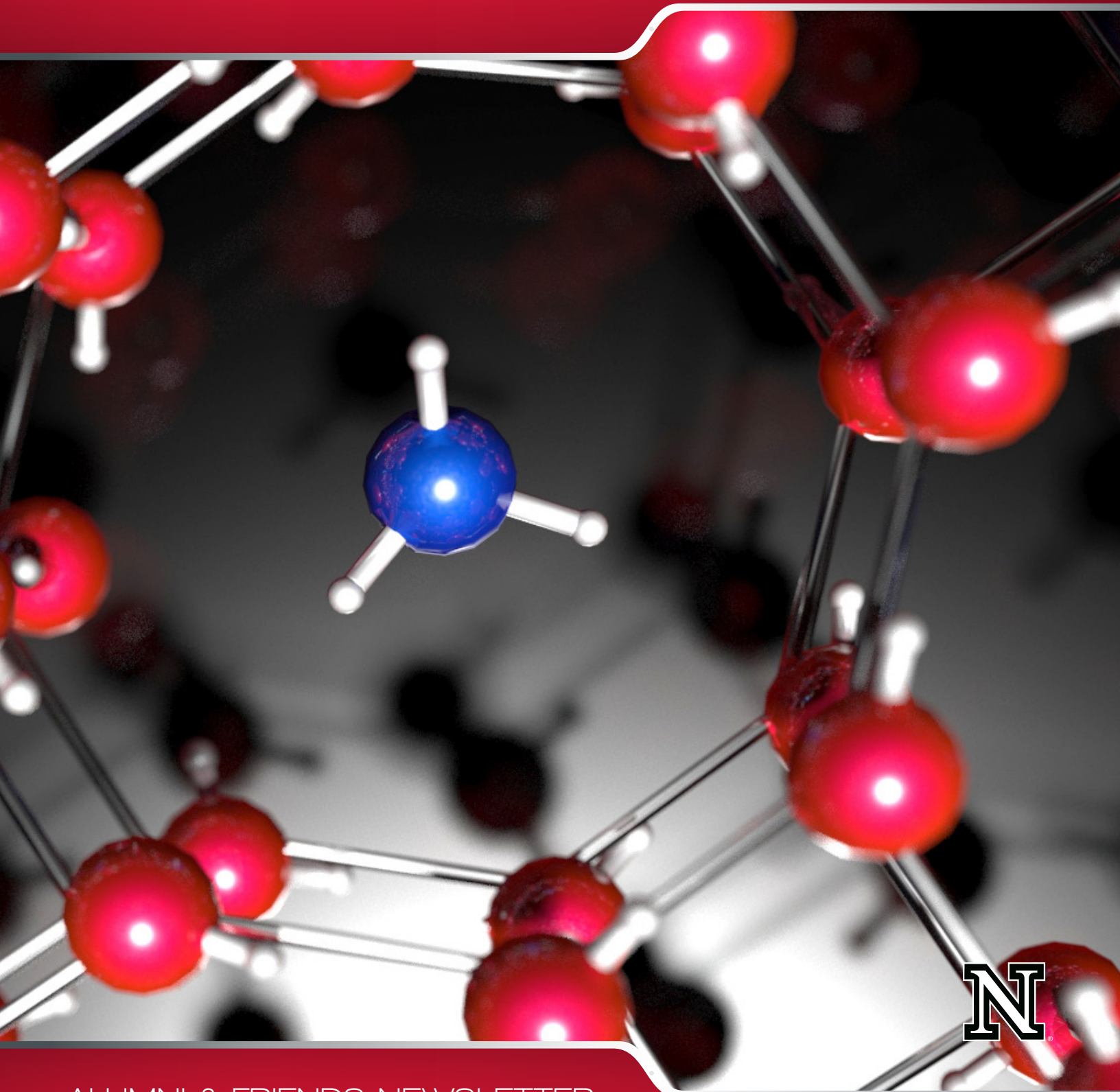


DEPARTMENT OF **CHEMISTRY**

UNIVERSITY OF NEBRASKA-LINCOLN



ALUMNI & FRIENDS NEWSLETTER
Summer 2013

Letter from the Chair



Dear Alumni and Friends,

In just a few short weeks, my six-year term as department chair will come to its conclusion, and Dr. David Berkowitz will begin his term as the incoming chair. David and I have been talking frequently over the past several weeks; the transition is well underway. For those of you who do not know David, he is an outstanding scientist and an exceptional individual. A feature describing him and aspects of his career is located elsewhere in this issue. The department will be in great hands.

The University and the department have undergone many changes over the past six years. Joining the Big Ten has had major impact on the expectations for academics and the research enterprise; very exciting. The renovation of Hamilton Hall, at times painfully slow but nonetheless steadily ongoing, has completely engulfed the first and second floors of the building with new classrooms and 100-level chemistry teaching laboratories. In addition, the remodels on 7th and 8th floor, most of the 6th floor, and part of the 4th floor have newly remodeled research space to accommodate new faculty hires. A second cold room and a cell culture lab have been added and a new 700MHz NMR spectrometer will be installed in the coming months.

The administration has recognized the potential of the department and consistently been supportive of its growth, reversing the shrinking trend that had dominated the previous decade. Seven outstanding new faculty were hired as assistant professors over the past six years joining four faculty promoted to associate professor and tenured, two faculty promoted to the associate professor of practice, and five faculty promoted to full professor during that period. The department is now back to 25 tenured or tenure track faculty and eager to continue rebuilding on that momentum.

In closing, I'll share one memory. Once per week as my travel schedule permitted, I arranged an 8:15 AM meeting at a local coffee shop with the assistant professors, whomever was available rain or shine, summer or winter. The time was simply intended for answering their questions, informal discussions, and getting to know one another. It is no secret that the 8:15 AM meeting time was popular with no one (yes, including me). However, the secret is that, while the meetings were intended for the benefit of the young faculty, I quickly realized that it was I who most benefitted. The dozen young faculty who participated over the past six years, and who now form the core of the department, are outstanding young scientists with great ideas, enthusiasm, insights, and energy. Those meetings over coffee were truly energizing for me. This department has a great future.

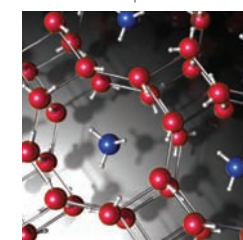
All the best,

James M. Takacs
Charles J. Mach Professor and (and soon to be former) Department Chair

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Cover Image

Illustration by Joel Brehm,
Office of Research and
Economic Development



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DEPARTMENT OF CHEMISTRY

Story ideas, activities, and achievements can be submitted by sending an email to kerry.vondrak@unl.edu. Receipt does not guarantee publication and the editor reserves the right to edit for space, clarity, grammar, and style.

Editor and Writer

Kerry E Vondrak

Contributing Writers

Tom Simons and Kelly Tuttle

Designer

Stephanie Severin

Editorial Correspondence email

kerry.vondrak@unl.edu
or write Kerry E Vondrak
University of Nebraska-Lincoln
515A Hamilton Hall
Lincoln, NE 68588-0304
Phone: 402.472.4453

Updates

Alumni members, now you can update your contact information by visiting <http://chem.unl.edu/dept/alumnreg.shtml>.

Support the Chemistry Department

If you would like more information about specific needs of the department, such as graduate and undergraduate fellowships/scholarships, award lectureships, or research instrumentation, please contact:

Director of Development

Amber Antholz

(402) 458.1182 direct
(800) 432.3216 toll free
aantholz@nufoundation.org

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Baton Passed to New Chemistry Chair



Dr. David Berkowitz

Every so many years the Department of Chemistry has a “changing of the guard” as it were, for the department chair. This year, Dr. James Takacs is leaving his position as chair, and he will pass the reigns on to Dr. David Berkowitz. Many of you may know Dr. Berkowitz from your time here as a student. He’s been with the department for 22 years. However, for the last several years Dr. Berkowitz has been in Washington working for

the National Science Foundation (NSF) as the Program Lead for Chemistry of Life Processes (CLP) while still managing a research lab at UNL. Not an easy task to say the least.

Dr. Berkowitz is a Midwesterner, born and raised in Illinois. His undergraduate studies were with the University of Chicago. Berkowitz mentions several faculty who influenced his direction as a student/scientist in his early undergraduate years. These include professors Bruce Ganem, David Cane, John Law, and Joseph Jarabak. “I was so fascinated with the chemistry of endocrinology, that I asked Dr. Jarabak after class one day if I could work in his lab. The result was a great hands-on learning experience in enzyme kinetics, two undergraduate publications, and an undergraduate thesis.”

Dr. Berkowitz’s graduate studies were at Harvard and eventually at the *Eidgenössische Technische Hochschule Zürich* (ETH) or the Swiss Federal Institute of Technology in Zurich, Switzerland, where his advisor, Steve Benner, took a position. “This meant that I had to learn German which I dreaded at the time, having intensely studied French and having spent a year abroad in France,” commented Dr. Berkowitz. However, German proved doubly beneficial. It was in this German language class for international students that he met his wife of 25 years, Ania. And, of course, German is quite useful scientifically since so much of the classic organic chemistry literature is in German.

His doctoral work was primarily in the area of enzymology/protein characterization. “Benner was a wonderful mentor, motivating all of us with free-flowing, curiosity-driven group meetings.”

For his postdoc experience he chose a more synthetic direction at Yale, studying under Sam Danishefsky with a Merck Fellowship. “This too was an inspiring period, in a large research group with many postdocs, surrounded by a lot of experience, ambition, and camaraderie.”

At this stage, it was clear to Dr. Berkowitz that he would go the University route, and endeavor to build his own independent

research program in an academic setting. “As a faculty candidate, I interviewed widely and found the University of Nebraska to be a very special place. Pill-Soon Song was at the helm in chemistry, and he was an active and dynamic chair. Hamilton Hall was the largest single building I visited that was solely dedicated to chemistry. And the place was buzzing with energy; so many young faculty members had just been hired. I learned that the chemistry department had a long and proud tradition, being one of the leading departments west of the Mississippi, and being the anchor to one of the earliest ACS local sections. I also learned that the chemistry department staff was an excellent group, dedicated, efficient, hard-working, and proud. It was really a no-brainer to sign on and become part of the department.”

Dr. Berkowitz started his journey here as an assistant professor at UNL. He has been quite active in both undergraduate and graduate teaching, having embraced the ever-changing classroom and research technologies along the way and adjusting and/or developing his own chemistry curriculum. His service work includes 1) serving tours of duty on the Executive Committee, 2) being Graduate Admittance Chair, and 3) currently representing the University and the department as a program director at NSF.

Even while serving as program director at NSF, Berkowitz was still able to supervise his research group back in Lincoln with great success. He describes the work his research group is doing as “active at the interface of synthetic organic chemistry and mechanistic enzymology. This includes the development of novel, quaternary amino acids for the mechanism-based inactivation of vitamin B6-dependent enzymes. A number of these enzymes are very important in signaling, controlling the levels of important neuroactive amines such as dopamine (Parkinsons), GABA (epilepsy), and D-serine (excitotoxicity/stroke).”

The group is also involved in developing the area of “teflon phosphates.” These are fluorinated phosphonate functional groups that serve as surrogates for biological phosphates and can be used as tools in chemical biology or as elements of enzyme inhibitor design. His team is currently working collaboratively with both Rick MacDonald at UNMC and Julie Soukup at Creighton in this area of research.

They are also working on creative uses of enzymes in synthetic chemistry. This ranges from cloning/expressing new enzymes for use in asymmetric synthesis to developing an enzymatic system that allows the organic chemist to rapidly screen a matrix of conditions (e.g. ligand, metal, protecting group, substrate) to arrive at an optimized catalyst structure for a targeted transformation. They term this as “In Situ Enzymatic Screening.”

Over the years, Berkowitz has seen many of his former students blossom and grow in many directions. “I have many cherished memories of Hamilton Hall and most revolve around the thrill of seeing undergraduate, graduate, and postdoctoral alumni of the group or the department mature and go on to successful careers.”

‘New Chemistry Chair’ continued on page 14

‘Nebraska Ice’ leads to Three more discoveries

‘Nebraska Ice’ is the discovery that just keeps on giving for chemist Xiao Cheng Zeng and his research team at the University of Nebraska-Lincoln.

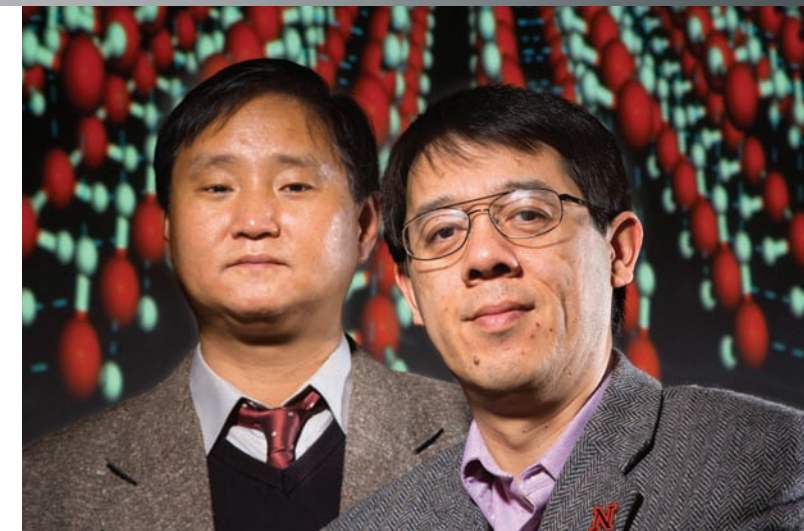
Modeled by Zeng’s lab in 1997 and confirmed by laboratory researchers in the Department of Energy’s Pacific Northwest National Laboratory in Richland, Wash., in 2009, Nebraska Ice is the nickname for a startling discovery that water contracts rather than expands when it is frozen at extremes of subnanoscale confinement. A two-dimensional form 0.8 billionth of a meter thick, the ice is as flat as flat can be—thus its moniker. Its technical name is Two-Dimensional Bilayer Ice I.

Thanks to research that grew out of that discovery, Zeng and his colleagues went on to publish two more papers in two of the highest-impact scientific journals based on Nebraska Ice, one in *Nature* (2001) and one in the *Proceedings of the National Academy of Science* (2010). This week, Zeng and research assistant professor Jaeil Bai add to that total with a paper in the Dec. 10-14 online edition of *PNAS*. The article details three separate discoveries made in a series of computer experiments directly related to Nebraska Ice using the University of Nebraska’s Holland Computing Center.

One is a two-dimensional ice glass formed by applying lateral pressure equivalent to 30,000 atmospheres to Nebraska Ice. The resulting amorphous form had no long-range crystalline order in the water molecules, which instead formed a jumble of squares to pentagons. The significance here, Zeng said, is that because the hydrogen bonds connecting the water molecules form a diamond pattern in normal ice, similar to those found in carbon diamond and silicon, this two-dimensional ice amorphous discovery can thus provide a window into the much more complex glassy behavior of those elements at the two-dimensional thin-film level. That knowledge could help advance their use in solar panels, protection for computer hard disks, and even the bottoms of ships, where cheap, environmentally benign carbon coatings could prevent corrosion from seawater.

The second discovery is a new two-dimensional bilayer ice form. Three-dimensional ice has 15 crystalline forms, but only one was known for the two-dimensional bilayer Nebraska Ice, so Bai and Zeng subjected it to lateral pressure equivalent to 60,000 atmospheres. The ice this time transformed into a square nanotube array, demonstrating a second crystalline form for Nebraska Ice.

The third discovery is something of a “grandchild” of Nebraska Ice, growing as it did out of the *PNAS* paper that Zeng, Bai and C. Austen Angell of Arizona State University published in 2010 about the discovery of a two-dimensional monolayer ice clathrate (a clathrate is essentially a network of molecular cages, usually three-dimensional in nature, in which molecules of one substance are completely enclosed in the crystal structure of another). The earlier discovery involved a computer experiment with monolayer Nebraska Ice where water-resistant argon atoms filled octagonal cages in the ice clathrate. For the new experiment, however, they decided to use two layers of Nebraska Ice, allowing them to substitute much larger methane molecules for the argon.



Jaeil Bai (left) and Xiao Cheng Zeng. Projected behind them is a computer model of the square nanotube array, a new two-dimensional ice form that they discovered.

Photo courtesy University Communications

After a computer simulation that lasted nearly six months, Bai and Zeng found that the Nebraska Ice and methane would form a bilayer clathrate. That’s significant for two main reasons, Zeng said. One is that three-dimensional methane hydrates buried in seabeds around the world are potentially immense energy sources, estimated by the Department of Energy to provide as much as 20,000 terawatt-years of energy, compared to the 1,000 terawatt-years estimated to remain in conventional oil and gas. A second is that gas clathrates tend to form in deepwater oil and gas pipelines and block the flow. Again, he said, the two-dimensional study should provide insights into understanding the properties of the more complex three-dimensional gas hydrate materials and help prevent blockages.

“I came here as an assistant professor 20 years ago, and I started to do research on water and ice, year after year,” said Zeng, Ameritas University Professor of Chemistry. “I’m still amazed by its fascinating properties. Water is kind of an exquisite artwork of Mother Nature, and that’s no exaggeration.”

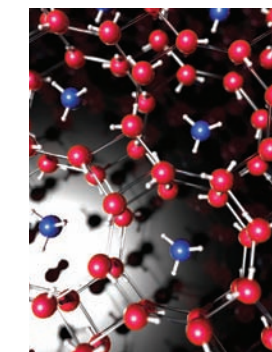
“Each discovery gives us new excitement, but it also raises more questions. That’s why water fascinates me. It amazes me every time we create something new that we’re not expecting.”

It’s the 11th time in as many years (and the third time this year) that work in Zeng’s lab has been published in one of the four highest-impact interdisciplinary journals—*Nature*, *Science*, *PNAS* and *Nature Communications*. Research for this week’s paper was supported by grants from the National Science Foundation, the Army Research Laboratory, the Nebraska Research Initiative, and the Holland Computing Center.

— Tom Simons, University Communications

At right and on cover: Artist’s conception of the two-dimensional monolayer ice clathrate. The blue-and-white figures represent the methane molecules.

Illustration by Joel Brehm, Office of Research and Economic Development



Inventor, Entrepreneur and Visionary Gets His Start at UNL

Playing hide-and-seek in Lincoln, Nebraska, hadn't changed much until 1950, when 15-year-old Robert Allington designed and built a night-vision scope. Suddenly, the boys in his neighborhood could play in the dark. In his CHF oral history, Allington says of that time, "I wanted to astound the kids in the neighborhood, get their admiration, and all that kind of stuff."

Born in 1935 in Madison, Wisconsin, where his father was a professor of plant pathology, Allington spent most of his life in Lincoln, where the family moved in 1948. Junior high was a social disaster—Allington says he wanted no part of the social scene, unless he could sidetrack the bullies with his inventions. The idea was that they would stop tormenting him, and he could make friends and impress people. He started experimenting out of curiosity, but what he made was often determined by what other kids wanted. Electronics interested Allington, and, along with building a working radio at age 13 and the night-vision scope at 15, he also put together high-voltage, "truly evil" Tesla coils and designed a stereo system.

A natural next step for the young tinkerer was the University of Nebraska—Lincoln (UNL), and he went there as a 16-year-old to study engineering, with a sideline in chemistry. In the summer of 1955, he interned at the Lincoln Laboratory in Lexington, Massachusetts, working on the 100-square-foot by four-stories high Semi-Automatic Ground Environment (SAGE) air-defense computer AN/FSQ-7, which went online three years later and was retired only in 1983. Allington loved working with the computer built to track and intercept enemy bomber aircraft. In August of that year, shortly before he was to return to school, Allington was diagnosed with polio. The Lincoln Lab doctor dropped him at the emergency entrance of the nearest hospital and told him to call home. Allington walked slowly to the hospital's elevator. He never walked again.

In June 1958, after three years of treatment, recovery, and agonizing physical therapy, Allington was finally done with all hospital care. He returned to UNL to complete his studies. A masters degree in electrical engineering followed quickly. But the acute boredom Allington suffered during his recovery contributed more to his future life than any degree. In 1957, this boredom drove him to open a part-time business based in his home, repairing and making scientific instruments. In partnership with toolmaker Jacob Schafer, Allington took requests for specialty equipment, which he designed and Schafer built.

In 1959, a near disaster resulting from Allington's business naïveté ultimately turned the tide for Isco, their company. A customer in the veterinary science department at UNL had asked for a device to measure potentially fatal gas pressure in cow stomachs. Too much rich food like alfalfa can cause dangerous bloating, which can be deadly to the cow if not treated. This was a technically difficult project that took almost a year to complete. Allington says "the transmitter had to be small enough to be shoved down the animal's throat." It also had to float with its pressure-sensitive end above all that digesting food. When Allington delivered the product and a bill for \$3,500, he discovered his customer had no money. Instead, he offered Allington 10 cents on the dollar.

"I figured my pride was worth more than \$350," says Allington, "so I flounced out, or at least flounced as well as somebody in a wheelchair can flounce!" Fortunately for Isco a man from the Feed Service Corporation called that very day asking for a similar product. Allington was shocked and remembers thinking, "I could sell my ruminant pressure apparatus for mechanical oxidation-reduction potential for studies in ruminant animals." "Why, yes, indeed," he told the man on the phone. "We can probably supply you with one of those systems in just a couple of months, and how much is it worth to you?" Not only did that single order (for which Allington made sure to have a contract) provide him with enough money to leave his basement for better business quarters, it also gave him a quick but effective lesson in management.

By 1964, Isco was established enough to allow Allington to buy out Schafer's share when he decided to leave. The company had mostly stopped making one-off items at that point since they were not worth the trouble. The cash cows were an ultraviolet absorbance detector and a fraction collector, both used in chromatography.

Allington headed his company for another 40 years, shepherding it through several major expansions and restructurings, and playing a significant role in R&D right up until its sale two years before his death in 2006. As part of his bequest Robert Allington endowed the Allington Fellowship at CHF's Beckman Center, which funds short-term research on any topic in the history of chemistry. Past Allington Fellows have researched topics ranging from English alchemy to the history of Prussian blue to quantum chemistry in the Soviet Union.

— Kelly Tuttle is an editorial intern at *Chemical Heritage*.

Alum Survives Grad School While Working Full Time and Lives to Tell the Tale



Chad Briscoe

One the major pieces of advice our department gives first-year graduate students is "time management, time management, time management." So it is understandable when fellow classmates of Chad Briscoe thought he was absolutely crazy to attempt graduate school while married, with kids, and working full time. But he did do it. It took Chad nine years, but with perseverance and a lot of support from every angle, he made it happen.

"Even though I was in a non-traditional situation, I was welcomed in the department by staff, faculty, and students," Chad remembers. "The support I received from all of these groups was tremendous. I couldn't have possibly completed my degree without special attention from so many people to help me accomplish my goal."

So why would a person knowingly take on such an overwhelming challenge? Chad recalls this life changing decision like it was yesterday. "I was working full time at MDS Pharma Services

(now Celerion) and was looking to advance my career. In the Pharmaceutical Industry, a Ph.D. is very important to move into senior leadership positions, so I decided that I needed to pursue that or move into a different industry. I also had just started my family and needed to support them so I knew I couldn't quit work. I met with Dr. Parkhurst and Dr. Hage in the chemistry department to discuss the possibility of completing my Ph.D. while I worked full time. They were very supportive, and so I decided to go for it."

Chad recalls Dr. Hage really working with him to complete his degree. "Professor Hage was very flexible with me to allow me to pursue my interests as a part of my research under his direction." This included some aspects of his work at MDS Pharma Services, computer simulations, and applications of mass spectrometry to extend the research capabilities of Dr. Hage's lab.

Chad continues, "I was surprised at how accommodating the department was for my unique situation. When I first approached them, I didn't think they would agree to let me take the non-traditional approach at all. They were willing to make some exceptions for timelines, and I didn't have to teach. But I also didn't get any special treatment in classes, cumulative exams, or oral exams."

Even though Chad remembers his time here very fondly, he does recall the rough patches too. Chad retells the story of his first exam in immunology. "I remember getting a 60% on the first exam... I don't think I ever told my wife. I thought I was going to be done before I even got really started. I guess it was a kick in the pants to remind me that it was going to be a lot of work. So I really started putting in the study time needed and got a 100% on the final exam to pull out a B in the class."

We know many students wonder if all their hard work, dedication, long hours in the lab, and years in graduate school will ever pay off in the end. Well, it seemed to be a successful career strategy for Chad. While still going to school at UNL he was promoted at MDS Pharma Services. He eventually moved to Kansas to start a new laboratory in a terrible economy. They were able to turn a profit in just two years. Chad is now the Senior Director of Bioanalysis at PRA in Lenexa, KS. He runs a bioanalysis laboratory that analyzes samples using LC/MS/MS to support clinical trials from around the world.

Chad credits a great deal of his success to his experiences at UNL. "I don't believe I would have gotten my current position if I hadn't earned a Ph.D. It really isn't just about the Ph.D. degree though. The experience of earning a Ph.D. changes the way you think and approach problems. In order to complete your Ph.D., you need to learn to be an excellent project manager as you are really project managing your graduate experience. You have to take a 5 (or in my case 9) year project and break it down into parts and attack each one individually. For the research aspects, you learn to think about problems and solutions differently. You learn to attack them more independently and with more depth. The depth of scientific knowledge is helpful, but it's these ancillary skills that really differentiate me in a long-term way."

In his spare time, Chad enjoys yard work, bicycling, and travel but most of his free time is devoted to family and enjoying activities with them. "These days, that means going to a lot of youth soccer games as both a coach and a spectator, which I love!"

UNL Alum Remembers Bringing Indian Culture to Campus



Dipanjan Nag

Many of you may remember Dipanjan Nag (DJ) as a fellow student or a UNL employee. Well today, DJ is the CEO of his own company, IP Shakti, LLC. For those of you who don't know DJ, he was a graduate student with the UNL chemistry department from 1993-98 with Dr. Bill Braunlin as his advisor.

He came here in 1993 because his fiancé had already been accepted to UNL, plus the University was also highly ranked in the graduate school guides and he was familiar

with Dr. Gupta's work. As a student, DJ remembers what a great sense of community the UNL Department of Chemistry had. The annual department picnic at Mike Cook's house, the PLU picnic, the undergraduate labs, all memories he holds dear. How he loved teaching those labs. "It was a lot of fun teaching. I really enjoyed doing that." He has fond memories of Dr. Dussault, Dr. Griep, Dr. Takacs, Dr. Redepening, Jonathan, Walt, Roxanne, and Tom Phillips. He remembers Dr. Carr and Dr. McLaughlin as the freshman chemistry teachers at the time and loved teaching for them in the undergraduate labs. That love of teaching is still with him to this day. However, graduate school did come with its challenges and being an international student presented inherent hurdles.

"My perspective was from an international student. No one prepared me for how cold it would be," commented DJ. "No one can prepare you for that. I had to adapt to a different culture. My fellow graduate students were very supportive during this process. Those graduate students are like family to me now, and I am happy to say I am still in touch with them." Furthermore, while DJ was here he was very involved with Raag, a student interest group that brought numerous Indian flavored classical music performances to UNL. He was directly involved with bringing between 15 to 20 musical performances to campus adding another dimension of culture to UNL.

So what happened to DJ after graduation? He was hired by Dr. Rich Shoemaker as the assistant director of instrumentation from 1999-2000 and director of instrumentation from 2000-2003. DJ said "Rich was a mentor to me. He made such a difference in my life by supporting me to go for an MBA. That changed my career in a huge way".

DJ left the Department of Chemistry to go to the UNL Office of Technology Development as their technical development manager in 2004. He was eventually promoted to the director of operations and also served as interim assistant vice chancellor for technology development during the summer of 2005. During his tenure with this department he was responsible for successfully licensing numerous technologies from the University to the marketplace including the major licensing deal with The Monsanto Company for a genetic invention.

In 2007, DJ then joined ICAP Ocean Tomo, an intellectual property

'UNL Alum Dipanjan Nag' continued on page 13

New Student Resource Center Almost Complete

For those of you who took or taught freshman chemistry 100- and 200-level classes, you will really appreciate the fact that all our undergraduate labs on the second floor are now completely remodeled, including the north and south wings. Plus, the Resource Center has just recently been remodeled as well. The new Resource Center has study/huddle rooms designed for small group studying or tutoring. Also several lecture instructor offices are located in the Center for enhanced instructor student access. The individual study

centers are strategically placed by the windows to give students a quieter place to study with an amazing view of the beautifully landscaped UNL campus. Information monitors will be placed in various locations to notify students which TA's are available, upcoming events, chemistry news, chemistry trivia, and student feature stories. If you haven't been to campus lately, we invite you to take a tour of the department so you can see our latest developments. See you soon!

Top left: Resource Center before construction.
Top right: Resource Center after construction.
Bottom: Resource Center after construction.



PLU's Loving Cup Trophy for Freshman Scholarships

For the first time in decades, the chemistry department is displaying the silverplate-over-brass loving cup trophy etched "Rho Chapter of Phi Lambda Upsilon Freshman Scholarship." It is in one of our new display cabinets on the second floor of Hamilton Hall. The seven cabinets were constructed as part of the renovation of our freshman chemistry laboratory rooms.

Nineteen names are engraved on a ring around the bottom of the cup. According to the PLU Minutes book dating from 1922-1933, the Rho Chapter approved the creation of this scholarship by unanimous vote on October 20, 1927, to "make an annual award to the member of the freshman class having the highest scholarship record in chemistry."

The conditions for selecting the winner of the Phi Lambda Upsilon Freshman Scholarship were:

- (1) The winner must have completed twenty-seven credit hours in the University of Nebraska during the school year and have maintained a grade of at least eighty percent in all subjects excepting Military Science, Physical Education, Freshman Lecture, and Orientation.
- (2) The winner must have completed two semesters of Freshman Chemistry, totaling at least six credit hours.
- (3) The name of the winner will be announced the last week of the school year and the award will be made at a meeting of Phi Lambda Upsilon early the following fall.
- (4) The awarding committee will consist of the Chairman of the Chemistry Department, the Dean of Student Affairs, the Councilman of Phi Lambda Upsilon, and the President of Phi Lambda Upsilon.

The winner received "a personal medal" and had their names engraved upon the cup, which was on permanent display in Chemistry Hall [now Avery Hall].

The first award ceremony is described in the *Journal of Chemical Education* (1928, volume 5, pages 1704-1705) under the heading of "University of Nebraska" as follows:

The first annual scholarship award for the highest scholarship in freshman chemistry was presented to Homer Deadman of Falls City, Nebraska, at a public meeting of the Rho chapter of Phi Lambda Upsilon the evening of November 22nd. Aside from the personal medal, the winner has his name carved upon the Phi Lambda Upsilon Freshman Scholarship Cup. Doctor Fred Upson, chairman of the department of chemistry, gave the address of the evening titled "How Discoveries in Science Are Made." All freshman chemistry students were especially invited to the meeting.

Labeled diagonally around the bottom ring are:

Homer R. Deadman, 1927-1928	Ray A. Granger, 1937-1938
Charles W. Ihle, 1928-1929	Roy C. Feber, 1938-1939
Hubert Arnold, 1929-1930	Robert Alberty, 1939-1940
Verner Schomaker, 1930-1931	Harvey L. Tookey, 1940-1941
Charles H. Nelson, 1931-1932	Lester Krogh, 1941-1942
Marion L. Jackson, 1932-1933	Paul E. Ruhter, 1942-1943
John T. Parker, 1933-1934	Kathleen C. Hayes, 1943-1944
Paul M. Lindstedt, 1934-1935	Elizabeth McHenry, 1944-1945
Philip L. Southwick, 1935-1936	Hans Rath, 1945-1946
Richard E. Schlueter, 1936-1937	

A quick search on the Internet reveals the following outcomes:

- #3. Hubert Arnold became a UC-Davis math professor
- #4. Verner Schomaker earned his Ph.D. in Chemistry at Caltech working with Linus Pauling. He performed the x-ray diffraction data used by Pauling to predict DNA structure. Schomaker became a professor at Caltech, won the 1949 ACS Award in Pure Chemistry, and became Chair of Chemistry at the University of Washington.
- #6. Marion Jackson became a University of Wisconsin soil science professor
- #9. Philip Southwick became a Carnegie Mellon chemistry professor
- #12. Roy Feber Jr. became a Los Alamos National Labs lead chemist
- #13. Robert Alberty earned his Ph.D. in Chemistry at the University of Wisconsin. He became a chemistry professor at MIT, co-wrote a physical chemistry textbook in 1955 that went through many editions, and was admitted to the National Academy of Sciences in 1965. He is currently MIT professor emeritus. (See also page 11 and 14.)
- #14. Harvey Tookey became a Purdue University biochemistry professor
- #15. Lester Krogh is now 3M Corporation Sr. Vice President R&D
- #16. Paul Ruhter became Supervisor of Radiation and Dosimetry at Idaho National Engineering & Environment Lab
- #19. Hans Rath may have retired in 2002 after a career as a general surgeon in Omaha.

That is an impressive list of winners. It is not clear when the Rho Chapter stopped giving the scholarships because the Minutes book ends in 1930. Does anyone have the subsequent Minutes book? Does anyone know if the Rho Chapter purchased a second loving cup when they ran out of room on the first?

— Mark Griep, October 2012

UNL Chemistry Student Brings School Spirit to the Department

Emily Snell is one of those students who is making the most of her undergraduate years at UNL. Since Emily has been a chemistry student at UNL, she has earned the Maxine Wertman scholarship, become a member of the Dean's Scholar Society, participated in the UCARE program, served as the vice president of Chemistry Club, played in the Cornhusker Marching Band, and has represented the chemistry department at the Women in Science Conference Luncheon to mention only a few of her extraordinary accomplishments.

Emily says her two loves while attending UNL have been conducting research and participating in the Cornhusker Marching Band. Some might say that's an odd combination, but it's a combination that's kept her balanced and focused.

Emily has loved working with the UCARE program because it gave her the opportunity to develop academically. "First of all, I'm a much more hands-on learner than most, and able to apply the concepts I'm learning in the classroom to my research which really helps me gain a better understanding of both. ...It has been a very rewarding experience," commented Emily.

Emily claims UNL has provided her with so many learning and career opportunities.

"I was honestly surprised at how much research goes on in the chemistry department. I knew that UNL was a research school, but the sheer volume of professors and graduate students doing research in the department was still astounding to me when I first learned about it."



Emily Snell

Emily believes anyone can succeed at UNL if they only apply themselves. Her advice?

"I would tell new students to stay ahead in their classes. If you let things pile up until the last minute, you may realize it's too late for you to do well. Non-academically, I would really encourage new students to get involved. If you're interested in a subject, find the club and attend a meeting. You'll meet people with the same interests, people in your position and people that have been there and are willing to help, and people that you'll be friends with for your entire college career."

However, probably Emily's sagest advice was to find empowerment from within. "No matter what you're interested in, there are plenty of opportunities. You just have to go find them!"

Undergraduates Given Research Awards to Study at UNL for the Summer

Many of you may remember doing summer internships or volunteering in various research labs, anything to give your resume or CV that competitive edge. Well, some things never change, however the chemistry department has given the summer research experience a new twist from what you might remember. A couple years ago, the chemistry department received a grant from The National Science Foundation (NSF) for a Research Experiences for Undergraduates (REU) program. These are very competitive and sought after undergraduate awards since each student receives room and board, a generous stipend, and assistance with travel. This summer, the Department of Chemistry, with the assistance of the NSF grant, was able to award 9 REU's out of a student pool of over 500 applicants and one Faculty/Student Pair award sponsored by the department.

Each student is associated with a specific research project, where he/she works closely with an assigned faculty member, a grad student mentor, and other researchers.

For 10 weeks, these students will live and breathe research all while attending workshops designed to prepare the students to be

successful grad applicants and eventually grad students.

Our summer 2013 summer awardees were:

Antoneal Lawrence, Lincoln University; Heidi Roth, Hastings College; Erin Reinhart, Saint Mary's College; Jorden Johnson, St. Olaf College; Anna Diepenbrock, College of the Ozarks; Elliott Rodriguez, Barry University; Ingrid Lehman Andino, University of Puerto Rico; NaTasha Carter, Jackson State University; Christopher Richardson, Hamilton College; and Jay Taylor, Northwest Missouri State University

Congratulations to these fortunate recipients. If you happen to know of an undergraduate looking for summer research opportunities encourage them to apply at: <http://www.unl.edu/summerprogram/research#chemistry>.

Look in our next issue for a feature story on one of these REU students.

Department Alumni Celebrated!



Kent Kelley Robert Alberty Fred McLafferty Dexter Sharp Ronald Wankel

The Department of Chemistry would like to recognize the graduation anniversaries of several of our alumni including our 5, 10, 20, 30, 40, 50, 60, and 70-year alumni.

5 years: Min Bian, Ph.D.; Ms. Mandi L. Conrad; Ms. Diep N. Dinh; Ms. Kari A. Fiegen; Mr. Ryan M. Gerber; Chunlei Guo, Ph.D.; Ms. Susannah C. Hall; Ms. Regina Rawlings; Yoon J. Jang; Jeremy J. Karr, Ph.D.; Ms. Stephanie J. Kratzer; Mr. Nicholas A. Lehmann; Andrew R. Lemke; Jeremy L. Lohrman; Kelly A. Mercier Ph.D.; Ms. Van C. Nguyen Mai; Mr. Michael D. Nguyen; Ms. Jessica I. Peinado; Ms. Lucille I. Giesbrecht; Mr. Rajesh Rajasekaran; Ms. Sony Soman; Ms. Manuela C. Stan; Mr. Robert A. Waters; Jodell E. Whittington, Ph.D.; and Mr. Qing Zhang

10 years: Ms. Annika L. Carlson; Jianzhong Chen, Ph.D.; Jacqueline R. Emerson, Pharm.D.; Mrs. Jennifer C. Green; Hee S. Kim, Ph.D.; Junsik Lee, Ph.D.; Casey L. Madinger, Ph.D.; Mary Anne Nelson, Ph.D.; Ashraf S. Raza, Ph.D.; Eric M. Samuelson, M.D.; and Behrouz Zand, M.D.

20 years: Mr. William B. Arikpo; Mrs. Anuja Chattopadhyay; Lily M. Deforce, Ph.D.; Mr. John A. Dorsch; Stefanie R. Ellison, M.D.; Xiaoping Fu, Ph.D.; Ronald E. Hileman, Ph.D.; Mrs. Joelle M. Holliman; Mr. Eric R. Homolka; Clifton B. Jacoby, Ph.D.; Mr. Marc A. Larson; Mark T. Quinlan, M.D.; Mr. Kevin L. Reiman; David J. Rose, Ph.D.; Mrs. Sandra B. Sachs; Douglas E. Stack, Ph.D.; Mrs. Susan E. Stirrup; Mrs. Susanne Valeika; and Joris R. Vermeesch, Ph.D.

30 years: Gerald E. Bossard, Ph.D.; Miss Ann S. Copenhaver; Arthur L. Cordry, Ph.D.; Joyce E. Fischer, Ph.D.; LuAnn J. Gerber; Gary N. Giss, Ph.D.; Ingrid E. Goldenstein, M.D.; Gary S. Groenewald, Ph.D.; Mr. Linus H. M. Horcher II; Jackson O. Lay Jr., Ph.D.; Richard K. Lester, Ph.D.; Diana M. Maul, Ph.D.; Mr. James L. Pelton; Mr. Charles J. Schmidt; Jane K. Schreiber, Ph.D.; Mr. David E. Splichal; Mr. Charles V. Sueper; and Mr. Richard L. Widstrom

40 years: Mr. Ronald J. Aerni; Michael D. Allison, M.D.; Mr. Wayne B. Anderson; Mr. John L. Andrews; Leonard J. Archer, Ph.D.; Mr. Allen E. Black; Robert C. Bugle, Ph.D.; David C. Busby, Ph.D.; Yang-Chang Chen, Ph.D.; Mr. Peter I. Chipman; Jack B. Dixon, Ph.D.; Mr. Stanley D. Dunn; Mr. Allan D. Feit; Mr. Donald B. Graham, Jr.; Kenneth J. Haller, Ph.D.; Robert D. Hargens, Ph.D.; Mr. Thomas E. Henke; Mr. Ronald P. Hutton; Mr. Julius G. Jerdon; Mr. Mark Johnson; Mr. Arthur W. Kuper; H. George Levy, M.D.; Terry R. Lewis, M.D.; Ping-Huang Liao, Ph.D.; J. Woodson Mader, Ph.D.; Mr. Thomas H. Manning; Mrs. Theresa A. Michels; Mr. Dan E. Morgan; Mr. John J. Obrist; Shing-Kuo Shih, Ph.D.; Mr. Gordon A. Sirek; and Carl D. Sterner, Ph.D.

50 years: Mr. Donald D. Bauder; Lawrence H. Brannigan, Ph.D.; James W. Carpenter, Ph.D.; Harold R. Papiska, Ph.D.; Mr. Lynn C. Walker

60 years: Denzel L. Dyer, Ph.D.; Mr. Kent C. Kelley; James E. Koller, Ph.D.; Richard J. Mohrbacher, Ph.D.; and Carl E. Vogler, Ph.D.

70 years: Robert A. Alberty, Ph.D.; Fred W. McLafferty, Ph.D.; Dexter B. Sharp, Ph.D.; and Ronald A. Wankel, Ph.D.

If you are one of the alumni listed above, we'd love to hear what you've been up to. Please email at kerry.vondrak@unl.edu with your updated alumni information.

Alumni Updates

Dr. Ronald Bartzatt ('80 M.S., '82 Ph.D., Carr) is a researcher and assistant instructor at the University of Nebraska at Omaha and lives in the Omaha area.

Dr. Satya Bulusu ('06 Ph.D., Zeng) currently works at the Indian Institute of Technology Indore as an assistant professor. Bulusu lives in Indore, India.

Michael Humphrey ('88 M.S., Carr) is currently working at ConAgra Foods as their senior chemist. He currently lives in the Bellevue, NE area.

Jared Solomon ('02 B.S.) earned his M.D. and is now a physician with the People's City Mission Free Clinic in Lincoln, NE.

Harvey W. Taylor, Jr ('71 Ph.D., Baumgarten) is a retired Research Fellow from DuPont with 24 patents in the area of photopolymer science.

Robert Matejka ('61 B.S., '66 M.S., Wheeler) retired from Akzo Nobel Coatings as their Environmental & Engineering MRG. Matejka lives in the Fort Mill, SC, area.

Pradip Das ('85 Ph.D., G.G. Meisels) works with Merck.

Lintao Wang ('02 Ph.D., DL Smith) is currently a senior scientist with ImmunoGen Inc. and lives in the Lexington, MA, area.

Robert Tisdale ('86 Ph.D., George) works with Rigaku Corporation as their senior vice president and lives in the Austin, TX, area.

Eric Haas ('01 Ph.D., Stezowski) is currently an associate professor with Creighton University in Omaha, NE. This year Eric was tenured and promoted.

Mojtaba (Mojie) Fatemi ('96 B.S.) works for Novartis Consumer Health, Inc. as their process engineer. While at UNL he also earned a B.S. in chemical engineering; and an M.S. in environmental engineering. Mojtaba later earned an M.A. in management from Doane College. Most recently, he received his Six Sigma Black Belt Certificate from UNL. At work he is responsible for cleaning process validation at the Novartis' Lincoln location.

Congratulations to Our Graduates:

Brandon Burnett (Ph.D.)	Robert Denton (B.S.)
Socrates Canete (Ph.D.)	Scott Evans (B.S.)
Haemi Chung (Ph.D.)	Shawn Fredstrom (B.A.)
Jennifer Copeland (Ph.D.)	Brandon Griess (B.A.)
Christopher Frey (Ph.D.)	Mahli Hartmann (B.A.)
Jennifer Gerasimov (Ph.D.)	Aaron Lindstrom (B.S.)
Paul Goodman (Ph.D.)	Elizabeth Needels (B.S.)
Jaime Stark (Ph.D.)	Sahn Tan Nguyen (B.S.)
Shri Harsha Uppalari (Ph.D.)	Mason Niemeyer (B.A.)
Jun Zhou (Ph.D.)	Sara Petska (B.A.)
Stephen Wright (M.S.)	Michael Stewart (B.A.)
Daniel Boodwine (B.S.)	Bryce Walker (B.A.)
Joshua Bollman (B.S.)	

The Department of Chemistry Faculty, Staff, and Students Recognized

Faculty Recognized:

- Dr. Marilyne Stains' research group has just published their first paper in the *Journal of Chemical Education* and it has also been listed as the top 20 most downloaded articles for the month of April and May. <http://pubs.acs.org/doi/full/10.1021/ed300181t>

- The research works of Dr. Robert Powers and Dr. Eric Dodds and their collaborative partners have recently been featured in ACS Publications. Their research demonstrates that urinary metabolites have significant promise for monitoring disease-progression and response to treatment in MS patients. NMR analysis of urine permitted the identification of metabolites that differentiate experimental autoimmune encephalomyelitis (EAE)-mice (prototypic disease model for MS) from healthy and MS drug-treated EAE mice. <http://pubs.acs.org/doi/abs/10.1021/cb300673e>

- A computational study by Xiao Cheng Zeng and his lab has found that CO can surprisingly provide a cocatalytic assist to gold nanoclusters during oxidation reactions. This self-oxidation mechanism reveals a new twist to how gold functions as a catalyst. Read more about Dr. Zeng's exciting research in C&EN. <http://cen.acs.org/articles/91/i6/CO-Serves-Own-Cocatalyst-Gold.html>

- Director of the UNL Chemistry Research Instrument Facility, Martha Morton is featured in the latest issue of *Chem. & Eng. News* (February 4th, p 18-19). The article details how the helium shortage cost the department big bucks, to the tune of \$500,000. Check out the article to see what they say about the future of helium. <http://cen.acs.org/articles/91/i5/Coping-Helium-Shortage.html>

- Dr. David Hage and Dr. James Carr have recently published textbooks. They have both signed with Pearson and have come out with a textbook titled *Analytical Chemistry and Quantitative Analysis*. This book is written for college undergraduate students who are taking a chemistry course in quantitative analysis and analytical chemistry such as our CHEM 221 course at UNL.

Faculty Promotions:

- Ron Cerny was promoted to Research Full Professor.
- Robert Powers was promoted to Full Professor.
- Liangcheng Du was promoted to Full Professor.

Faculty Awards:

- Dr. Clifford Stains has just been given the Layman Seed and New Directions award for his application entitled "Quantification of Metastatic Signaling Using Protein Kinase Activity Sensors" with a funding period of June 1, 2013, through May 31, 2014. He was one of 18 selected out of an applicant pool of 47.

- Eric Malina, Stephen DiMugno, Eric Dodds, Neil Lawrence, Jamie Stark, and Manashi Chatterjee received the "Certificate of Recognition for Contribution to Students" at the 25th annual UNL Parents Recognition Ceremony.

Staff:

- Dodie Eveleth, business manager for the Department of Chemistry, was awarded the UAAD, Carl A. Donaldson Award for Excellence in Management. This award is given to individuals who have demonstrated 1) superior planning, decision-making, and organizational skills; 2) promoted a teamwork attitude; 3) displayed a commitment to self-development and professional growth; 4) supported subordinates' personal and professional development by providing educational opportunities and fair evaluations. Along with this great honor, Dodie will receive a \$1,000 stipend and a one-year membership to UAAD.

- The seventh annual UNL Staff Art Show in April was on display in the Nebraska Union Rotunda Gallery. The exhibit featured the work of 18 UNL employees including a staff member from the UNL chemistry department, Deanna Larson!

Student Awards:

- Greg Triegeer won fifth place at the American Chemistry Society's Speak Simply Undergraduate Research Poster Contest with his project "Novel Method for the Fluorination of Electron Rich Rings." The contest took place at the 245th American Chemical Society National Convention in New Orleans this past April. Greg Triegeer was a 2011 Research Experience for Undergraduate (REU) program alum from Dr. Stephen DiMugno's research lab.

- Emily Snell, a chemistry undergraduate student, has been accepted as a member of the Dean's Scholar Society. Along with the membership to the Dean's Society, Snell will receive a \$500 scholarship for the 2013-2014 academic year. The Dean's Scholar Society is a group of students from the College of Arts and Sciences whom have demonstrated excellence in scholarly activities and campus leadership.

The following awards were given out at the Student Awards Colloquium:

- Benjamin Coenen - T. Adrian George Undergraduate Teaching Award
- Yuseph Khan - John J. Stezowski Undergraduate Teaching Award
- Jacob A. Johnson - James D. Carr Graduate Teaching Assistant Award
- Wantanee Sittiwong - Fuerniss Fellowship Award
- Nathan C. Thacker - Cromwell Graduate Research Assistant Award
- Xiang Fei - Graduate Research Assistant Award
- Jennifer Y. Gerasimov - Charles L. Wilkins Graduate Research Assistant Award
- Jeanethe Anguizola - Korean Alumni Graduate Research Assistant Award

Chemistry Department Staff Members Earn Applause and Kudos Awards



Kate Shaner

The Applause award for January went to **Kate Shaner**, financial manager in the chemistry department! As her nominators said:

"As the financial manager of the chemistry department, Kate is the master of grant money management. She always makes sure that we get the maximum value out of every single dollar. Through the Applause Award nomination, we'd like to let her know that her contribution is priceless!"

"Kate plays an essential role in our department. As the financial manager, Kate aids all the faculty with budget preparation for grants. She works continually to ensure that faculty are spending funds wisely and in accordance with the regulations. A delicate balance to be sure. Her diligence and attention to detail make our lives much easier. Indeed, none of us would be nearly as successful if it were not for the consistency of Kate's work. Our department runs smoothly because of Kate Shaner!"

"Kate Shaner is a 'career person' at UNL. She is one of the very most professional, competent, and efficient co-workers I have had the pleasure of working with in my 20-plus years at the University. She is responsible for all of the grant activity in chemistry, regularly monitors deadlines, grant proposal guidelines, reporting requirements, etc. for a large number of funding agencies, and for all of the PIs in the department. Kate Shaner is a walking encyclopedia of knowledge about the grants process, and she interfaces very well with the Sponsored Programs Office, the Dean's Office, the Chair's Office, and the faculty. She is a winner and the University is very lucky to have her on board!"

"Kate is the most amazing person. The amount of knowledge she has to remember about budgets, finance, fellowships, university policy...it makes my brain melt just thinking of it! But Kate is on top of it all, notifying me, and others, of changes in travel, funding,

'UNL Alum Dipanjan Nag' continued from page 7

transaction firm, a subsidiary of ICAP Plc., as their director and was later promoted to vice president. He concentrated on the private sale of biotechnology and life sciences technology areas. In 2009, DJ left ICAP and joined Rutgers University's Office of Technology Commercialization as their executive director. At Rutgers University, he was responsible for licensing technologies and creating spin-off companies from the research conducted at the University. Due to DJ's efforts, he created 21 startups. In 2012, DJ said to himself, "If I can do this for the University, why not do it for myself." So he started his own company called IP Shakti, LLC, a proof of concept fund focused on medical devices. He was able to secure private investors and has found over 80 universities for collaboration. DJ is taking innovations, early stage medical research, and concepts and developing them into companies or products.

reimbursement issues or whatever AND she ALWAYS does this with kindness and consideration. Plus she has the best sense of humor and is really fun to work with. Kate definitely deserves the Applause award, she's deserved it for a long time!"



Mike Cook

The Board of Regents KUDOS award was given to **Mike Cook**, a buyer for the Department of Chemistry in the College of Arts and Sciences at the University of Nebraska-Lincoln.

Mike's primary responsibility for almost 27 years has been managing the purchasing department and its personnel and procuring all commodities, equipment, supplies, and services for the chemistry department. He does so with

the utmost care and in accordance with university, state and federal laws, statutes and regulations. Mike researches product performance and quality, evaluates cost and vendor reliability, and monitors delivery time. He maintains excellent relations with vendors, and consequently researchers in the department receive great service from them. Mike gets the best price and best delivery on all orders and goes the extra mile to find a better product. There isn't a detail that escapes his attention. As the department chair states, "If you need it, Mike will find it and bring it here at the best price and in the shortest time possible."

Colleagues point out that Mike is a wonderful team player who is not only respected but admired by those who work with him. He has made himself available after hours and during holidays when urgent issues required a rush purchase. Mike also is famous for bringing his "monster grill" to annual department-wide picnics which are attended by more than 100 students, faculty and staff, and he organizes an annual potluck lunch involving the entire department. He doesn't have to do it, but it has become a tradition and everyone looks forward to attending.

DJ says his training at UNL was integral to his current success as a CEO of his own company. Even though he is detached from research today, DJ uses that knowledge base on a daily basis when he interacts with faculty from various universities.

When DJ is not working with IP Shakti, he teaches intellectual property strategy at Rutgers University and is also a Visiting Professor at Shizuoka University, Hamamatsu, Japan.

DJ loves scuba diving with his son Ayon and enjoys photography with his wife Bidisha. They have just visited Chile and Jamaica this past year where they had a chance to relax and enjoy the scenery.

Some humorous memories Berkowitz recalls include a "faculty roast" by students at his first PLU Holiday Party. "I will never forget being initiated into the department by the PLU by being lured into a rigged version of Jeopardy, in which my team lost to the staff, and Darrell Kinnan and I were required to take three paces and then face off in a silly string dual. I think we both lost, but a good time was had by all."

Some recent alums might also recall a special moment in 2010, when a group of students decked out in red robes and dark sunglasses, fully incognito, appeared at the beginning of Berkowitz's CHEM 252 Organic Chemistry lecture. They proceeded to recite from memory the history and meaning of *The Innocents Society*, a uniquely Nebraska institution dating back 110 years. "They proceeded to tackle me on the green in front of Hamilton Hall as dictated by the century old ritual for induction into the Society as an Honorary Innocent. The mission of the Innocents is to promote the welfare of the University and the State. It is very meaningful to be associated with this storied group at the University."

Outside of chemistry, for "sanity preservation," Berkowitz enjoys running recreationally. He says with a smile, "It pays to get a bit older, I finally managed to crack the top ten of my age group in the Lincoln Half-Marathon this year."

Presently, Berkowitz is very excited about the prospect of being department chair. "There are several very important reasons why Nebraska Chemistry is a great place to do research and teach. It begins with the students. The top undergraduates at NU are second to none. It is truly remarkable how talented this top echelon is at Nebraska. I think that we are now seeing this recognized more and more, with the success our students are having in obtaining competitive Goldwater and Fulbright Fellowships. It is a privilege to teach our undergraduates."

Berkowitz continues, "The graduate students and postdoctorals that we have been able to attract continue to impress me. I heard about the "Midwest work ethic" and "Midwest modesty" when interviewing here and in the intervening years, and I think that there is real meaning to these expressions. As a professor, I have been able to explore a wide range of scientific areas, largely because of the ambition, abilities, and exploratory spirit of my co-workers and this has been a great privilege."

"At the level of the faculty, this is an exceptional group, very smart, and creative, probably underestimated by many, perhaps owing to some 'Midwest modesty' of its own. Many of the chemistry faculty members are among the best in the world in their areas of expertise, and we need to do all that we can to facilitate their continued success and promote their visibility."

"As I mentioned before, the chemistry department staff is special; it is an almost Osbornian group in terms of its level of experience and dedication to the department. This helps immensely in getting things done. As we strive to further build the department, this is a fine team with which to march forward."

With great anticipation for what the future holds, Dr. Berkowitz looks forward with humility and gratefulness to the chairs who came before him. "Jim Takacs has done an outstanding job as department chair these past six years. The department is on a great trajectory and I have every expectation that we as a team will continue to build on this solid foundation and make known our entrance into the Big Ten in Chemistry, as well as on the gridiron."

Chemistry Faculty Remembrance Fund

The UNL Chemistry Faculty Remembrance Fund was created to establish an endowed fund for those wanting to honor professors who impacted their lives.

Each year, an award will be made in honor of a former faculty member to a deserving undergraduate or graduate student with the spendable income generated by this fund.

If you would like to give to this fund, the Chemistry Excellence Fund, or establish a fund in someone's memory or honor please call 1-800-432-3216 or visit <https://nufoundation.org/SSLPage.aspx?pid=2078&chid=25> for more information.

Alumni Update



Ronald Wankel

Pictured at left is alumnus Ronald Wankel, 1943 B.S. and 1949 Ph.D. graduate. Ronald explains this September 1941 photo is his only surviving photo from the 1940s. In this photo, Ronald was a junior in the Advanced ROTC program. Ronald had to take a break from his academics to serve in World War II for the United States Army. During his time there, Ronald was stationed in France and Germany. After coming home from WWII, he returned to UNL to finish his Ph.D. with Dr. Cromwell as his advisor. He continued his education with the University of Illinois for his postdoctoral studies and was later hired by Eastman Kodak in Kingsport, TN, where he served as their general manager of Photographic Chemicals Division. Thank you Dr. Wankel for sharing this photo with us. If you are an alum and would like to share an old photo with us dating back to your college years, we'd love to see it. Email us at kerry.vondrak@unl.edu.

Reconnect...

Facebook, Twitter and LinkedIn



The UNL Department of Chemistry is now on Facebook! Become a fan of the University of Nebraska-Lincoln Department of Chemistry today.



Follow the UNL Department of Chemistry on Twitter! Keep up-to-date on department awards, events, and research by following @UNLChemistry on Twitter.



Join the University of Nebraska-Lincoln Chemistry Alumni group on LinkedIn and reconnect with professors, colleagues, classmates, and friends! The Department of Chemistry Alumni group will help you expand and strengthen your professional networks while keeping you posted on all of the happenings in the department.

Chemistry Alumni Website:

<http://chem.unl.edu/alumni/index.shtml>

Offering:

Class Listings:

Current listings of Ph.D., M.S., and B.S./B.A. graduates.

Connections:

Career Networking Services provide links to job listings, help with chemistry job searches, and provide opportunities to use Chemistry Facebook Group and LinkedIn for social and professional networking. Update your contact information by sending to alumni@huskeralum.org.

Events/News:

Keep up with current events, past happenings, alumni newsletter, alumni stories.

Support the Department:

Learn how to support the UNL Department of Chemistry through a variety of ways.

Connect to Job Opportunities with Husker Hire Link

Husker Hire Link is UNL's free online service that connects UNL students and alumni with employers. The site allows students and alumni to post and send resumes; search jobs, internships, and employers; request on-campus interviews; and stay updated on career opportunities. Last year, more than 2,200 employers from across the country in a wide variety of career areas used Husker Hire Link to post more than 8,000 jobs and internships.

For more information visit the Husker Hire Link at <http://www.unl.edu/careers/hhl>.



Where are they now?

Attention alumni! We want to know where you are and what you're doing! Please take a moment to answer the following questions and return your responses by mail to:

University of Nebraska-Lincoln
Department of Chemistry
515A Hamilton Hall
Lincoln, NE 68588-0304

Or, email your responses to: kerry.vondrak@unl.edu

Name: _____

Degree: _____

Year Earned: _____

UNL Adviser: _____

Email: _____

Current and past career positions: _____

Please let us know of any significant events in your life and/or career since leaving the University of Nebraska-Lincoln. Also, please feel free to send any photos and/or recollections of your time here at UNL!

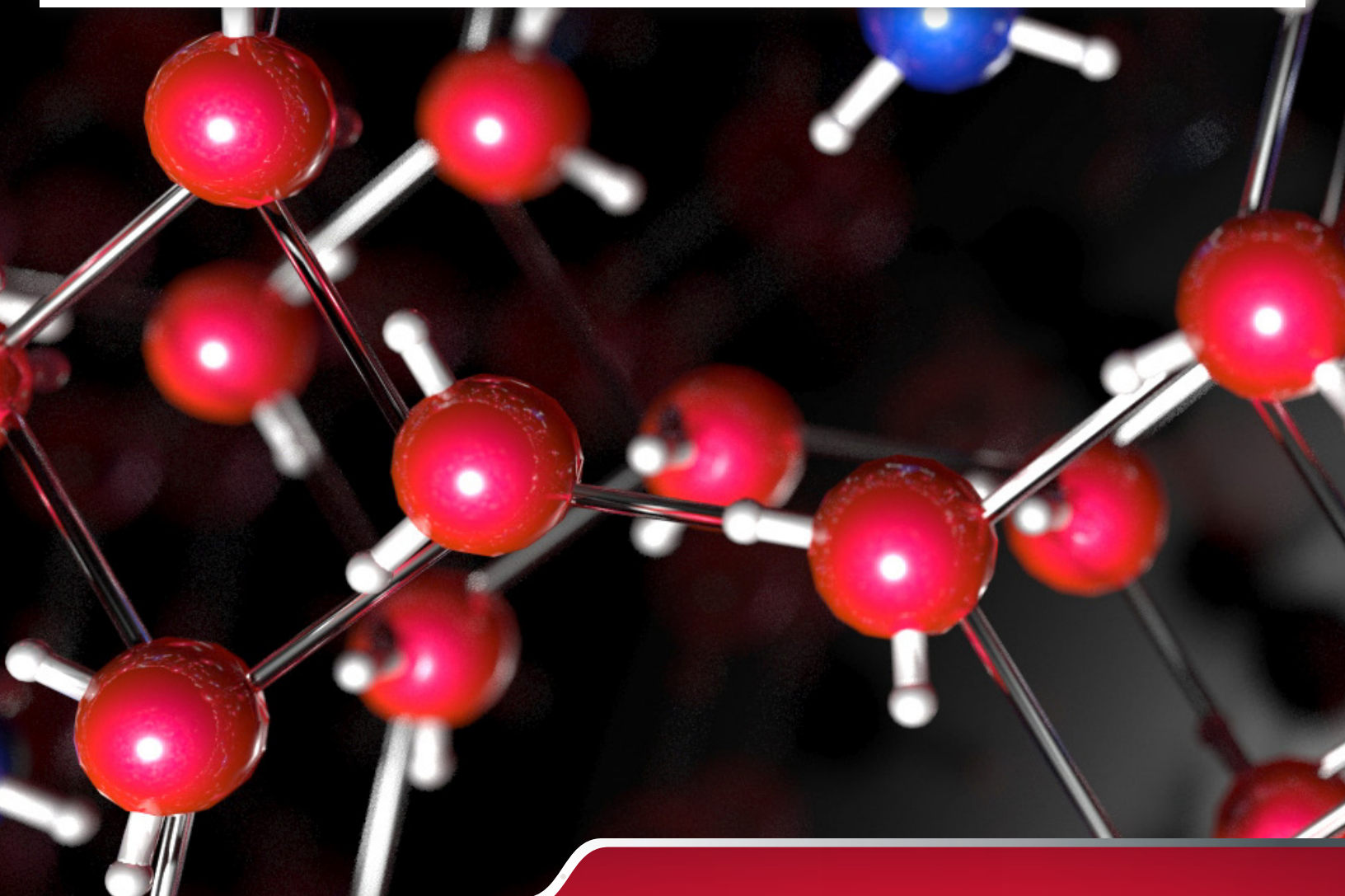
Update Contact Information:

Alumni members, now you can update your contact information by visiting <http://chem.unl.edu/dept/alumnreg.shtml>.

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Department of Chemistry
552 Hamilton Hall
P.O. Box 880304
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