UNIVERSITY OF ARKANSAS
J. WILLIAM FULBRIGHT COLLEGE OF ARTS & SCIENCES

The Mole Street Journal

Department of Chemistry and Biochemistry

Volume 14, Issue 2 April 2015

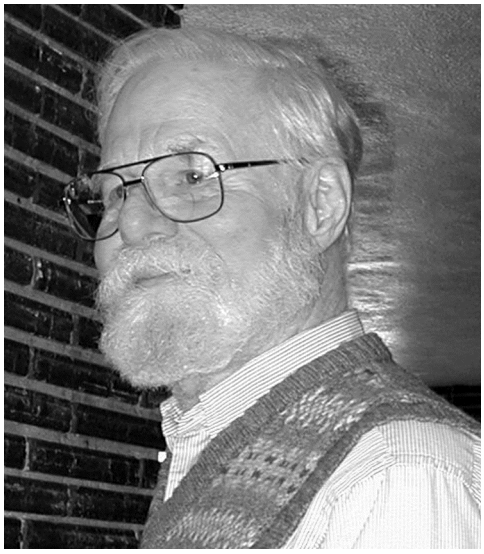
Special points of interest:

- Professor Davis presents Last Lecture for Mortarboard Society
- Two presented with Golden Tusk Awards
- Professor Stites receives grant
- Honors Student presents research at Capitol
- Graduate Student Gage Coltrain remembered

Inside this issue:

Endowed Scholarships Established

As many of you recall, **George Blyholder**, on the faculty from 1959 until 1996, passed away two years ago. We still miss George, but we are pleased to announce that Betty Blyholder has endowed a scholarship in George's honor. This scholarship will be open to either graduate or undergraduate students who are pursuing a career path in physical chemistry, George's area of specialization. At the moment we expect the award to be made primarily to support graduate research in the summer. We are excited that this substantial gift will help Professor Blyholder's legacy of scholarship to live on. Of course, further contributions to help build this endowment from former students and colleagues who were touched by his life are welcome. We are deeply grateful to Betty for her generosity. Her one stipulation to the gift? "Don't make me come to any ceremonies!" So, since we cannot have a ceremony, we will instead thank her by recalling some aspects of George's career for those of you who might not be familiar with him.



Professor Blyholder was a member of the physical chemistry division for 37 years and retired in 1996 just about the time we moved into the new research wing. He was born in Elizabeth, New Jersey in 1931. He obtained a BA degree from Valparaiso University, a BS degree from Purdue University in chemical engineering and a Ph.D. from the University of Utah under the direction of Henry Eyring (a major contributor to modern kinetics) in 1956. Before coming to the University of Arkansas in 1959 he was a postdoctoral fellow at the University of Minnesota and a research chemist at the Johns Hopkins University.

Professor Blyholder's research was in the broad area of catalysis but his focus was on the interaction of CO on surfaces. He was a major contributor to this field and was internationally recognized for some of the models he developed which still hold today. For example, in 1964 Professor Blyholder published an article in the Journal of Physical Chemistry (**68**, 2772) that has been cited 1432 times to date, including 41 citations in 2014 alone. Professor Blyholder used computer calculations to probe the theoretical aspects of problems and he was a talented experimentalist. He used IR spectroscopy to probe the surfaces of metals and he was proficient in the application of the technically challenging technique called matrix isolation. The technique allows an investigator to capture atoms or small molecules in a matrix of frozen argon. IR spectroscopy then provides a means of analyzing the nature of these molecules captured in the matrix that essentially isolates them from interaction any other material. Exposure to light can be used to create highly reactive intermediates which cannot be produced in any other manner. Publications such as "Infrared Spectrum of Carbon Monoxide Chemisorbed on Nickel at 44 K by a Matrix Isolation Technique" and "Adsorbed Species on Dark and Illuminated Zinc Oxide" are representative of the work described by the nearly 100 papers produced through his research efforts.

Lunch with Professor Blyholder was always an interesting experience, a piece of fruit and a bagel was his typical meal taken at the student union. His insightful yet down to earth comments about local events made a lasting impression.

Professor Blyholder is survived by his wife of 57 years, Betty Sue Conrod. They have two daughters, Sylvia and Victoria, and one son, Andrew.

We were also made aware of the 2014 passing of alumna **Virginia R. Hicks**, a resident of Butterfield Trail Village in Fayetteville. Virginia was born in 1927 and received her BS in chemistry in 1949. She established a scholarship in 2011, with funds becoming available upon her death.

Gifts such as these make it possible for us to accomplish the university's three-fold mission of teaching, research, and public service. When you plan a gift to the University of Arkansas-Fayetteville and the Department of Chemistry and Biochemistry in your long-term estate or financial plans, you help us remain a nationally competitive, student-centered research university serving Arkansas and the world.

Faculty News

On the Go

The following research was presented at the Biophysical Society Annual Meeting in Baltimore, Maryland, February 2015:

Denise V. Greathouse, J.J. Kinnun, J.A. Williams, D. Marquardt, J.B. Klauda, **R.E. Koeppe, II**, J. Katsaras, T.A. Harroun, S.R. Wassall, Disorderly polyunsaturated fatty acids and orderly cholesterol: Just how do they get along in a membrane?, Biophysical Journal 108 (2015) 412a.

Amanda Lowe, D.V. Greathouse, Characterization of membrane interactions of antimicrobial lactoferricin peptides with central residue substitutions, Biophysical Journal 108 (2015) 554a.

Ashley N. Martfeld, D.V. Greathouse, R.E. Koeppe, Response of gwalp transmembrane peptides to incorporation of buried histidine residues, Biophysical Journal 108 (2015) 553a.

Armin Mortazavi, V. Rajagopalan, D.V. Greathouse, R.E. Koeppe, Detection of helix fraying in designed transmembrane alpha helices, Biophysical Journal 108 (2015) 554a.

Venkatesan Rajagopalan, D.V. Greathouse, R.E. Koeppe, Ionization-dependent behavior of transmembrane helices that incorporate glu or tyr residues, Biophysical Journal 108 (2015) 554a.

Radda Rusinova, **R.E. Koeppe, II**, O.S. Andersen, A general mechanism for off-target effects: Studies with amiodarone and other antiarrhythmics, Biophysical Journal 108 (2015) 498a.

Vasupradha Suresh Kumar, A.N. Martfeld, D.V. Greathouse, R.E. Koeppe, Influence of a potentially destabilizing central tryptophan on transmembrane helix domains, Biophysical Journal 108 (2015) 553a.

Jordana K. Thibado, A.N. Martfeld, D.V. Greathouse, R.E. Koeppe, Influence of cholesterol on single arginine -containing transmembrane helical peptides, Biophysical Journal 108 (2015) 553a.

Sarah E. Whitlock, R.E. Koeppe, II, D.V. Greathouse, Comparing peptide-lipid interactions and antimicrobial activities of peptides with similar "core" lengths but variable arginine and tryptophan residues, Biophysical Journal 108 (2015) 554a.

Feng Wang gave an invited talk, "Water from the liquid-vapor critical point to the putative liquid-liquid critical point according to the first principles," The 9th International Conference on Computational Physics, Singapore, January 7-11, 2015.

T.K.S. Kumar attended the Annual Editorial Board meeting of the Journal of Biological Chemistry in Boston, MA, March 27-28, 2015.

Publications

Jenkins, S.V., Chen, S., Chen, J. Gold-Copper Alloyed Nanorods for Metal-catalyzed Organic Reactions: Implication of Surface Ligands on Nanoparticle-based Heterogeneous Catalysis, *Tetrahedron Lett.* 2015, accepted.

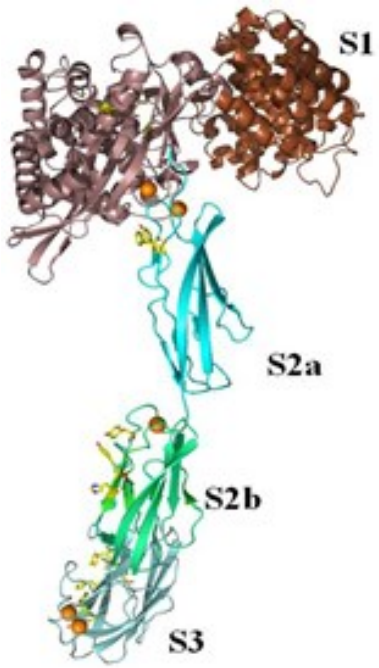
Jenkins, S.V., Gohman, T.D., Miller, E.K., Chen, J. Synthesis of Hollow Gold-Silver Alloyed Nanoparticles: A "Galvanic Replacement" Experiment for Chemistry and Engineering Students, *J. Chem. Ed.* 2015, accepted.

Hang Chen, Matthew Golder, **Feng Wang**, Stephen Doorn, Ramesh Jasti, Sergei Tretiak, Anna Swan. Raman-active modes of even-numbered cycloparaphenylenes: Comparisons between experiments and DFT calculations with group theory arguments. *J. Phys. Chem. C,* 119, 2879 (2015).

On the transferability of three water models developed by adaptive force matching. Hongyi Hu, Zhonghua Ma, and **Feng Wang**, Annual Reports of Computational Chemistry, Vol. 10, (2014).

Fruchtl M, Sakon J, Beitle R. Expression of a collagen-binding domain fusion protein: Effect of amino acid supplementation, inducer type, and culture conditions. *Biotechnol Prog.* 2015 Jan 13 full text is online.

Bauer, R., Janowska, K. Taylor, K. Jordan, B, Gann, S. Janowski, T., Latimer, E.C., ,Matsushita, O., **Sakon, J.** Structures of three polycystic kidney disease-like domains from Clostridium histolyticum collagenases ColG and ColH. *Acta Cryst.* D71, 565-577, 2015.

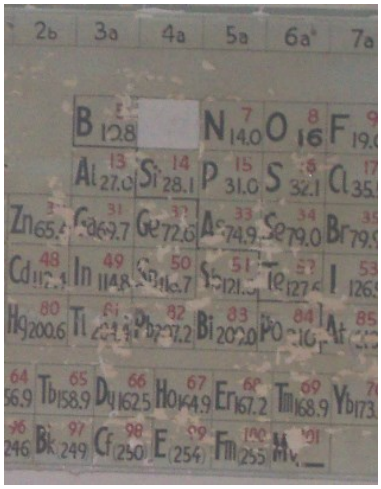


The work describes the 3D structure of a toxin secreted by Clostridium histolyticum that can dismantle collagen. It is sold as XiaFlex, used for the treatment of Dupuytren's contracture.

Bunnell, K, Lau, CS, **Lay, JO**, **Gidden, J**, Carrier, DJ. Production and Fractionation of Xylose Oligomers from Switchgrass Hemicelluloses using Centrifugal Partition Chromatography. *Journal of Liquid Chromatography & Related Technologies*, 38(7):801-809, 2015.

Eric C. Peterson, Michael D. Hambuchen, Rachel L. Tawney, Melinda G. Gunnell, James L. Cowell, **Jackson O. Lay, Jr.**, Bruce E. Blough, F. Ivy Carroll, & S. Michael Owens. Simple Radiometric Method for Accurately Quantitating Epitope Densities of Hapten-Protein Conjugates with Sulfhydryl Linkages. *Bioconjugate Chem.,* 25(12):2112-2115, 2014.

From the Chair - *Wesley Stites*



Jerry Smith, who earned his Ph.D. in 1959 working with **Sam Siegel**, was kind enough to drop us a line. Jerry retired as Professor from Southern Illinois University in 2003. Fayetteville continues to pull him back whether he likes it or not, since his daughter and her family live here. In the category of interesting coincidences, her business is in the old movie theater on Dickson where Dr. (then Mr.) Smith went on his first date with his wife. He also noted that Kurt Stern taught him to avoid caves. "It turns out that it's always dark in caves, and the chiggers get you when you get out and walk across the field to the car. I don't remember Kurt blowing anything up but I had a high pressure hydrogenation reactor explode once. Attracted a lot of attention."

The picture of the old lecture hall got a lot of attention. So we are including a picture from my collection, taken in 2005 during the demolition phase of the Chemistry building renovation. We talked in the last Mole about Bob Kruh and Wally Cordes building the periodic table with special lights in that lecture hall. This picture was taken after the removal of that periodic table, which revealed another periodic table underneath it. Note carefully the absence of Carbon. Does anybody know what happened to it?

The past two months have been full of highs and lows. The loss of **Gage Coltrain** is the first time within memory a graduate student in our program has passed away and, while not totally unexpected since his sarcoma reoccurred, was still shockingly fast and most definitely the worst low. There is a remembrance of Gage on page 6. However, while the loss of this student who was just hitting his stride is not to be minimized, sometimes loss reminds you of what you still have and leads to a high point. At the risk of overlooking others who have helped, I want to take this opportunity to thank four other students we have: **Colette Robinson, Lucas Whisenhunt, Eric Barber**, and **Marissa Reynolds**. As Gage's condition worsened, these four stepped forward to pick up his teaching duties without complaint or fuss. It could have been very difficult, but their willingness to pitch in and help really made this tough time easier for the undergraduates that Gage had been instructing. I must also mention Dr. Chris Mazzanti who labors long hours to make our labs run smoothly for once again coping with adversity. We cannot thank you and others that helped during Gage's illness enough. So while Gage will be missed, I do want all those reading to understand that he is just one of the many great graduate students who make this place function so well as a center of learning and discovery.

New Hire

The department is pleased to announce that Dr. **Robert Coridan** has accepted the position of Assistant Professor, to begin in August of 2015. Dr. Coridan is completing postdoctoral work at California Institute of Technology under Dr. Nathan Lewis. There will be more information about Dr. Coridan printed in the Mole later in the year.

Alumni News

Andrew Williams (Ph.D. 2009 under **Bill Durham**) was recently approved for tenure and promotion to Associate Professor of Chemistry at the University of Arkansas at Monticello. Dr. **Jeff Taylor** (Ph.D. 1992, **Koeppe**) and Dr. **Morris Bramlett** (Ph.D. 1993, **Allison**) are also member of the chemistry department at UA Monticello.

Ronald L. Clark (BA 1977, Chemistry) completed his education with a Law degree in 1981 from the U of A. His undergraduate advisor was emeritus professor Dr. **Dale Johnson**. He also remembers fondly Dr. **Paul Kuroda**, who died in 2001. Says Clark, "Both were great guys." Mr. Clark is the Managing Attorney with Clark, Trevino & Associates in Oklahoma City, OK.

Joe C. Wilson (Ph.D. 1974) was a U of A graduate in Physical Organic chemistry under the late Dr. **Arthur Fry**. "I had a very good career as a research Chemist at BASF Chemical Co., in Wyandotte, MI, and I was an author and/or co-author of over 30 patents for BASF. In all my career, I have always felt that I was well educated while at the U of A. I graduated with a Ph.D. in 1974."

Upcoming Seminars

Dr. Teri Odom, Professor at Northwestern University, will present *"Bio applications of Gold Nanostars" on* **April 13** at 3:30 p.m. in CHEM 144. Her group focuses on "making precious metals more precious" by controlling the size and shape of noble metals at the nanoscale. Their strategies include the development of new nanofabrication tools to create three-dimensional architectures with structural function that can span three-orders of magnitude simultaneously. They are also pursuing simple and scalable approaches to synthesize anisotropic particles. To understand the details of how light interacts with these structures, they use modeling to calculate the optical properties of single particles as well as the collective effects of assemblies of nanoparticles. Applications of these unique materials include nanomedicine, photovoltaics, sensing, and imaging.

Dr. Abraham Lee, Chair and Professor of Biomedical Engineering at the University of California, Irvine, will present a seminar on **April 27** at 3:30 p.m. in CHEM 144. Professor Abraham "Abe" Lee's research interest focuses on the development of integrated micro and nano fluidic chip processors for the manipulation and self-assembly of biomolecules and other synthesized nanoparticles. These integrated chip processors will also be designed for the sample preparation of biological fluids to extract the required ingredients for on-chip transducers. Applications for these fluidic processors include programmable precision production of biological reagents for nanomedicine, biomolecular nanosystems that utilize biophysics principles, and platforms to perform controlled studies of molecule-molecule/cell-molecule interactions.

UA Chemistry Professor Dan Davis Presents Lecture

The Mortar Board Senior Honor Society invited the department to attend their annual Last Lecture event. Dr. **Dan Davis** gave a lecture as if it was his last, with life advice for any audience member. An avid hiker of the Ozarks, his lecture was entitled "Some Photography, and Some Thoughts from a Variety of Sources." The lecture took place in the Arkansas Union, room 514 on February 19th from 5:30 -6:30 pm, with a reception following.

Poto is courtesy of Margaret Watermann, Mortar Board President

Black Heritage Celebration!

Saturday, February 28 at 2 p.m, Main Library Community Room.

A display of library materials related to African-American history and heritage were featured. Light refreshments were served. Program Emcee was Tony Jones. Featuring Tommy Terrific's Magic Show Honoring Satchel Paige and Negro League Baseball. Dr. **Paul D. Adams**, associate professor of chemistry and biochemistry at the University of Arkansas at Fayetteville, shared his personal journey and career as a researcher and scientist.
3201 Rogers Avenue, Fort Smith, AR 72903,
www.fortsmithlibrary.org

Faculty Members Recognized with Golden Tusk Awards

Matt Gerner and **Ingrid Fritsch** were awarded a Golden Tusk Award by Dr. Daniel J. Pugh, Sr., Vice Provost for Student Affairs and Assoc. Prof. of Higher Education. The pin symbolizes the spirit of teamwork, hard work, and the value of doing the right thing. One of Matt's students submitted an entry, stating that he had been especially helpful to her during her illness with the flu. This made a big difference in her recovery and how she is coping with catching up on her missed work. A student in one of Ingrid's classes stated that she had been a great professor, but she has learned much more than science from her. She has learned to care about others and how she should follow her "gut" feelings. Dr. Fritsch is a great role model. Thanks to both for supporting students!

Stites Receives Grant

Dr. **Wesley Stites** recently received a grant from the Camille and Henry Dreyfus Foundation to produce a series of short videos, filmed at various industrial sites, where a chemical process is used to make some product. Each example will be used to demonstrate one or more chemical principles with a combination of video, animation, and motion graphics. These videos will serve two purposes. One will be educational. The viewer will learn something about the chemical principle highlighted in the video. The second, and perhaps more important, purpose would be to make chemistry real and interesting. Many economically important industrial processes, familiar at some level to most people through their products, rely largely or completely on chemistry. And most people are unaware of the chemistry. Those processes are often visually interesting; even spectacular. This offers the opportunity to explain chemistry in a very entertaining way. Would students rather read a paragraph about, say, redox chemistry or see it illustrated by watching a video of a furnace, with molten iron, sparks, and moving parts, while hearing an explanation about how the carbon reduces the iron oxide to iron and is itself oxidized to carbon dioxide? Does reading about relative bond enthalpies have the same impact as seeing an explosion in a quarry, accompanied by a professional animation showing the exchange of oxygen from nitrate to a hydrocarbon with a discussion of relative bond strengths? In short, we are betting seeing something interesting will help inspire young people to understand something about the chemistry taking place.

One can argue whether or videos are always the best way to learn about something and generate interest, but to a large extent the answer to that argument does not matter. Even if videos are the worst possible way in the world to learn, like it or not, that is where our target audience; our 'customers' if you will; is at. Therefore it is where our profession also needs to be if it wishes to attract new students to the field and interest the public. In short, the goal is to make videos with professional production values that are entertaining, engaging, and get students excited about chemistry and chemistry careers. One key audience for these videos would be introductory chemistry students at both the collegiate and high school levels. Most of these students will not pursue chemistry but will form their impressions about the field and profession during their studies. We also hope to reach members of the public that are interested in science in general or in some process or product in particular. The videos will be posted to YouTube, on a university maintained website, and otherwise made freely available for anyone to use.

Dr. Stites and the producer, Kris Katrosh, are beginning location scouts next month. Shooting will be over the summer. If you know of an interesting industrial facility that would be willing to be featured in the videos, Dr. Stites would love to hear from you.

Honors Students Presents Research at State Capitol

Arkansas Newswire: Six University of Arkansas Honors College students discussed their undergraduate research in science, technology, engineering and mathematics from 10 a.m. to noon on Wednesday, Feb. 11, in the state Capitol rotunda in Little Rock.

The honors students are tackling real-world research with great potential impact in Arkansas and beyond. Topics range from improving asphalt fracture testing, which could extend the life of the state's roads and sidewalks, to finding new ways to treat diseases, including cancer, to developing shortening and chocolates enriched with a special soy oil that could cut cholesterol and boost metabolism. The students are working in close collaboration with their faculty mentors.

The six U of A students joined 86 other undergraduates from 15 Arkansas colleges and universities to showcase their scientific work for elected state officials, the media and members of the general public, including Advanced Placement science students from five high schools.

"We're proud of these honors students," said Jim Rankin, vice provost for research and economic development. "Their research has real potential to save lives and save money for the state of Arkansas, and this event presents an excellent opportunity for them to share their work with our legislators."

Representing the Department of Chemistry and Biochemistry was **Padma Manavazhahan**, from Bentonville, AR. She is an honors biochemistry senior and Bodenhamer Fellow in the J. William Fulbright College of Arts and Sciences. **Paul Adams**, associate professor of biochemistry, is her faculty mentor.

Manavazhahan is studying proteins that regulate cell growth and could potentially contribute to research on diseases marked by abnormal cell proliferation, such as cancer and tuberous sclerosis. Her work focuses on Ras homology enriched in brain (Rheb), a regulator protein that cycles between active and inactive forms, in effect functioning as an "on/off" switch in cell growth. The protein is controlled in part by interaction with a second protein that stimulates cell growth. Her research is aimed at better understanding the details of this interaction. Manavazhahan previously shared her research at the 34th Annual Undergraduate Research Conference and plans to pursue a career in medicine. She received a State Undergraduate Research Fellowship grant.

The event was sponsored by the University of Central Arkansas, the University of Central Arkansas Foundation, the Arkansas Science and Technology Authority, Henderson State University, and Arkansas State University. See the full Newswire article at http://bit.ly/1DeRuCc

Student News

Gage Coltrain Passed Away

In his application for admission, **Gage Coltrain** wrote about his excitement and passion for chemistry, and his desire to make a positive contribution to the world by advancing science. It is saddening, then, that we must relay the fact that Gage passed away Friday, March 20, 2015 due to sarcoma. Gage entered the PhD program in the fall of 2013 and was a member of the Kumar lab. Gage's memorial service was held March 26th in Beggs, Oklahoma. A number of graduate students and Dr. Stites were able to attend and represent the department. We hope that Gage will be presented a posthumous honorary degree at this May's graduation ceremony. However, we thought it would be appropriate to share some memories of this wonderful student here.

Upon hearing the news, Dr. Kumar said, "Personally, this is terribly sad news. Gage was a second year grad student in my research group. We lost one of the brightest, mature, and soft-spoken graduate student. Gage was a fighter. He attended my Molecular Biochemistry class last week despite suffering a collapsed lung. I'm deeply saddened by his demise."

Some of his lab members shared the following reflections.

"He was always so upbeat and optimistic. Every time I found myself down, he would never let me be negative. He brought such a great presence and joy to the lab every time I saw him. He will be missed greatly" said Jacqueline Morris.

Dr. Srinivas Jayanthi said, "He left a cell phone charger for me in room G03 and always used to say that 'Sri, your phone should never die.' As I am a vegetarian, he was concerned about my protein source and for my birthday, he gave me a big container of mixed nuts, which is still with me. I am really going to miss him a lot. He was very inquisitive and always showed interest in learning new things."

Mercede Furr added, "Gage always said Good Morning or Hello to me when either he or I entered the room. He was always in a good mood and we had good conversations which made me really look forward to seeing him in lab and class. He would joke with me and make me laugh which leaves me with some great memories of him. One day I told him I couldn't figure out where I was going wrong on a math problem and with everything he was dealing with he took time out to work through the problem with me and when we found my error he even made me feel better saying that it was a simple mistake everyone makes. I knew he could help me because he was so smart. In Gage, I had a friendly ally in the lab. I was very happy that he joined our lab. I can honestly say that the days that I saw him and spoke with him it made my days better. I am truly missing him. I know he was a good person who deserved to experience so much more."

Lab Instructor Chris Mazzanti said, "Gage taught for me in labs for most of his time here in the department. I was always pleased when I knew that he would be teaching a lab as his students seemed to be very happy to have him teach them, there were never problems with the labs. No matter what I asked of him, he always took care of it to the best of his ability with no complaints or comments (sometimes when I was encouraging comments he still had none). Gage was a very intelligent and soft spoken young man that I will miss but not forget."

Professor Frank Millett reflected, "I am very saddened by the passing of Gage. I got to know him when he took my course Bioenergetics last Spring. He was struggling with his health at that time, but was very courageous in continuing to pursue his studies. He was a wonderful person, and I will miss him."

David and Victoria Hayes summed up all of the department's feelings with, "Gage was a very quiet, courteous young man. He took his TA position seriously and took care of business. Gage always did a good job and went above and beyond what was expected of him. It was a privilege to work with him. We were truly blessed to have Gage in our lives."

Gage received his Bachelor of Science degree in Chemistry, graduating Summa cum laude from Northeastern State University in 2013. He entered the University of Arkansas graduate program with a Doctoral Academy Fellowship. The family requests that memorials may be made in Gage's name to St. Jude (stjude.org) or a cancer research organization of your choice.

Department Awards >$87,000 in Scholarships

In recognition of outstanding academic achievement, the Chemistry and Biochemistry Department in the J. William Fulbright College of Arts and Sciences selected 24 undergraduate chemistry majors to receive scholarships for the 2014-15 academic year.

Congratulations to the following students receiving the Octa N. High scholarship in the amount of their individual spring tuition fees: **Leslie Baldwin, Lauren Burgess, Kailey Claunch, Michael Elkins, Kevin Glennon, Amy James, Alexandrea Kim, Kelsey Rae Knobbe, Rebecca Moffett, Elizabeth O'Daniel, Akash Patel, Chris Randall, Jesse Roberts, Rachel Rogers, Allison Schneider, Tyler Sweat, Jordana Thibado, Cody Timmerman,** and **Nicholas Timmerwilke**. The average award was $3,250.

The Jacob and Wilma Sacks scholarship is awarded to **Kyle Guillory, Justin Klucher, and Taylor Needham**. They will receive $1,900, $1,500, and $1,100 respectively.

The Arthur and Lois Fry and W. Ves Childs Science Education scholarships are awarded to **Sushanth Kumar and Bonnie Ramsey.** Sushanth and Bonnie each will receive $3,000 in scholarship funds.

The Octa N. High Scholarship was established in 2009 by the late Octa N. High, a 1933 alumna who almost dropped out of school after her junior year at the University of Arkansas due to her family's inability to afford her tuition during the Great Depression. Fortunately, the institution was able to provide enough financial support for her to earn a bachelor's degree in zoology. She remained grateful throughout her life for the university's assistance. Today the Octa N. High Endowed Scholarship Fund provides scholarships to students in the programs of anthropology, biological sciences, and chemistry and biochemistry. Recipients are referred to as Octa N. High Scholars.

The Jacob and Wilma Sacks scholarship is named for Jacob Sacks and his wife Wilma. Sacks was a faculty member for more than 20 years and was largely responsible for establishing the biochemistry program. Wilma Sacks was a physician with the Arkansas Department of Health and was responsible for establishing many projects in the areas of maternal and child health.

The Arthur and Lois Fry scholarship was established by Arthur and his wife Lois. Arthur Fry joined the Chemistry Department in 1951, the year the department's Ph.D. program was established, and he played a major role in its development. His pioneering research brought international attention to the department and earned him a world-wide reputation as the "father of heavy atom isotope effects in elucidating the mechanisms of organic reactions". Fry was twice chair of the chemistry and biochemistry department and served on many National ACS committees. In 1985, he received the ACS Southwest Region Chemist Award. Lois received a graduate degree in nuclear chemistry from the department and was active in both teaching and research.

The W. Ves Childs Science Education scholarship is named in honor of W. Ves Childs, M.S.'60, Ph.D. '63. After receiving his Ph.D., Childs worked for Phillips Petroleum Company for twenty-two years, receiving international recognition for his work in electrochemistry and fluorochemistry. Following his time at PPC, he served as division scientist at 3M for seventeen years, continuing to develop innovative and economical technologies and continuing to receive international recognition. Childs was an inventor on 52 patents, authored five book chapters and numerous articles, and spoke to major symposia and conferences. He was a 50-year member of the Alpha Chi Sigma chemistry fraternity and of the American Chemical Society and a member of Sigma Xi, and the American Association for the Advancement of Science.

Scholarship recipients will be recognized at a certificate presentation Monday, April 20, at 4 p.m.in CHEM 105.

Milestones

Judy Sluppick (pictured left) retired Friday, February 27 after serving the department for 24 years. She started working here in August of 1991, first as the departmental receptionist for 1.5 years, then as accountant for her remaining years. She served under 6 department chairs and has been a cheerful, efficient presence for the department. She is looking forward to the coming retirement years. She plans on catching up on some reading, playing with her new grandchild due in May, and shooting some deer with her husband Tom. Reflecting on her time with us, she says, "I have appreciated working with so many friendly faculty and staff members. I will miss the routine of my days, but look forward to forming new ones. Thank you."

Replacing Judy is **Heidi Thompson** (pictured right). She has been working in the Department of Human Resources for almost 7 years and comes to us well qualified. She is a graduate of Southwestern Oklahoma State University in Weatherford, OK with a BBA in Accounting, is married to Phil Thompson, and has two adorable daughters, Tessa (7) and Amelia (3).

Please remember to turn in receipts, invoices, and packing slips WITH YOUR NAMES ON THEM in a timely manner to JANICE. Be sure to drop by Heidi's office and introduce yourself, so that she will be able to link a face with a name. Her email address is htthomps@uark.edu and the phone number will be the same as Judy's, 575-4975.

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Department of Chemistry and Biochemistry *University of Arkansas

Safety Tip:
by Bill Durham

It is prudent to check the hazardousness of new reagents if they are new to your group.

Department of Chemistry and Biochemistry

Excellence in the Central Science

Calendar of Events

April
3 CUME
13 Seminar: Dr. Teri Odom, Professor at Northwestern University, will present "Bio applications of Gold Nanostars" 3:30, CHEM 144
20 Honors and Majors Event
24 CUME
27 Seminar: Dr. Abraham Lee, Chair and Professor of Biomedical Engineering at the University of California, Irvine, will present a seminar at 3:30, CHEM 144
30 Last Day of Classes

May
1 Dead Day
3 Chicago at AMP
4-8 Final Exam Week
9 Graduation
10 Mother's Day
16 Armed Forces Day/Steve Miller Band at AMP
17 REU Summer Program begins
25 Memorial Day Holiday
26 Sumer Session classes begin

CUME Dates Announced

Spring CUME Dates:

January 23
February 13
March 13
April 3
April 24

5:00-6:00 p.m., CHEM 144

NOTICE: The Mole is moving to a bi-monthly format. Our next publication will be at the first of June, and will cover news that happens during April and May. Please continue to submit news articles in a timely fashion each month.

ARKANSAS INBRE
IDeA Networks of Biomedical Research Excellence

Save the Date!

The 2015 INBRE conference will be held November 6-7 in Fayetteville, AR.

The department of chemistry and biochemistry at the University of Arkansas strives for excellence in research, teaching and service in chemistry - the central science. We aspire to positions of leadership regarding the discovery of new scientific knowledge, the training of students, and the economic development of the State of Arkansas. We seek to recruit and retain a diverse group of the best faculty, students and staff to address the challenges of the future through interdisciplinary and multi-disciplinary research and education.

Library Hours

CHBC Library (CHEM 225)
http://libinfo.uark.edu/chemistry

Spring Semester Hours: January 11 - May 10

Regular Spring Hours	
Saturday and Sunday	CLOSED
Monday – Thursday	8:00 am – 9:00 pm
Friday	8:00 am – 6:00 pm
Exceptions to Regular Spring Hours	
Friday Mar 20	8:00 am - 5:00 pm
M-Th, Mar 23 -26 Spring Break	8:00 am - 5:00 pm
Friday Mar 27	Closed
Friday May 8	8:00 am - 5:00 pm
Intersession Hours: May 11 - 23	
M-F	8:00 am - 5:00 pm
Saturday and Sunday	CLOSED

The chemistry and biochemistry library resources can be accessed in the following LibGuides: http://uark.libguides.com/content.php?pid=110953. Please bookmark for future use.
Theses and dissertation resources can be found on the following LibGuide: http://uark.libguides.com/content.php?pid=123035 &sid=1057466.