Since its inception in 2009, the Office of Research’s Breakthrough Rising Star has recognized faculty members of the University of South Carolina whose scholarly pursuits, scientific inquiry, and passion for learning exemplify a record of research, scholarship and teaching defined as the highest and best in academia. As an institution that is dedicated to exceeding expectations and making extraordinary differences in the lives of students, the University recognizes faculty members who embody the virtues of scholarship and mentorship. Given the tradition of excellence in the Department of Chemistry and Biochemistry, it is not surprising that several our faculty have been recognized with this award. For the 2012-2013 USC Chemist, we would like to highlight the recipients of the Breakthrough Rising Star award, from its inception through Spring 2013. All have initiated ground-breaking research programs in their respective areas of research.

to read more about the Rising Stars

continue on to page
The biggest challenge for the Department continues to be the dramatic increase in undergraduate enrollment. The number of undergraduates taught grew from 6400 in 2009-10 to 8200 in 2012-13. The number of chemistry majors has leveled off at 245, while the number of biochemistry and molecular biology majors continues to increase-up to 90 as this new program completed its second year. We anticipate further growth in this major in the coming years. The most exciting development is a direct result of the increased undergraduate enrollment – namely our biggest year ever hiring new faculty, with four new Assistant Professors hired (see below). On the research side, with help from the Office of Research, we were also able to purchase a major new mass spectrometer (Orbitrap Velos Pro) and replace the consoles on our workhorse 400 and 500 MHz NMR spectrometers.

Here is a brief summary of department highlights for 2012-2013.

The department had another strong year in the number of awards and recognitions received by our faculty and staff. Three faculty won major university awards: Michael Angel was named 2013 Carolina Trustee Professor, Scott Goode was recipient of the Educational Foundation Outstanding Service Award, and Micky Myrick received the Mungo Undergraduate Teaching Award. These three awards recognize excellence in teaching, research and service and I don't mind bragging that the department has more winners of each of these three awards than any other department on campus. In addition, Andrew Greytak won the 2012 Sustainable Carolina Curriculum Award for his success in incorporating sustainability issues into his course curriculum. Chuanbing Tang and Sheryl Wiskur were named "Rising Stars" by the USC Office of Research, bringing the number of faculty to receive this distinction to seven in the four years of its existence (our cover story). The endowed Chairs of three of our faculty were renewed: Dan Reger, Carolina Distinguished Professor; Lukasz Lebioda, Lipscomb Biochemistry Professor; and Hanno zur Loye, David W. Robinson Palmetto Professor. Qian Wang, who had been the Sumwalt Chair since 2009, was named Carolina Distinguished Professor in 2013. At the state level, Caryn Outten received the Governor’s Young Scientist Award for Excellence in Scientific Research. At the national level, Micky Myrick received the 2012 Gerald S. Birth Award from the Council for Near Infrared Spectroscopy, Linda Shimizu was named an ACS Women Chemists Committee (WCC) 2013 Rising Star, Chuanbing Tang received a Doctoral New Investigator Award from the Petroleum Research Fund of the American Chemical Society and was recipient of a 2013 Thieme Chemistry Journal Award, and Qian Wang was elected a Fellow of the American Association for the Advancement of Science. Mike Walla and Bill Cotham received the 2013 College of Arts and Sciences Classified Staff Excellence Award. Bill Brewer won the 2013 College Non-Tenure-Track Teaching Award, recognizing his stellar record of achievement in the classroom. All of these awards recognize the hard work and outstanding accomplishments of our faculty and staff.

Four new faculty were hired in 2012-2013, all at the rank of Assistant Professor. Mythreye Karthikeyan joins the department in the Biochemistry division, Dmitry Peryshkov and Natalia Shustova in the Inorganic division, and Morgan Stefik in the Organic division. Mythreye’s research is in cancer biology and therapeutics; she is affiliated with the Cancer Therapeutics Center in the School of Pharmacy. Dmitry and Natalia are both inorganic materials chemists with Dmitry focusing on catalysis, organometallics, carboranes, CO2 reduction and Natalia studying materials for sustainable energy conversion, sensing, switches, and artificial biomimetic systems. Morgan is affiliated with the Center for Polymer Nanocomposites and is developing new polymer-derived nanomaterials and alternative energy devices.

Caryn Outten was promoted to Associate Professor and Donna Chen to Full Professor. Both have established exceptionally strong research programs and are also outstanding teachers. During the course of the year, Qian Wang was courted by another University; with the support of Dean Mary Anne Fitzpatrick, a retention offer led him to remain on our faculty, for which we are very grateful.

Numerous grants were awarded to our faculty during the 2012-2013 academic year. Perhaps most noteworthy, Chuanbing Tang and Hui Wang received NSF Career Awards.

The strength of the department derives from the extraordinary quality of our faculty, staff and students. The Department leads the university in faculty awards for both research and teaching (as well as service). As a result, I believe we are continuing to succeed in our joint mission of excellent teaching and high level research.

We need your help!! Recruiting outstanding graduate students is always a major goal of the department. You can significantly help us achieve this goal by contributing to either the Odom or Teague Funds. Named for two of our legendary teachers, Jerry Odom and the late Peyton Teague, these funds help us attract the best entering graduate students into our program with fellowships over and above their normal stipend. A gift to the Chemistry Department Fund would help us maintain a very strong weekly graduate seminar program that brings chemists and biochemists from around the world to the department to present their research and interact with our students and faculty. I hope you will consider making a contribution to any or all of these funds.
Recipient of the President’s Award, which is given to an athlete who displays extraordinary talents in the areas of athletics, scholarship, leadership and service, and the SEC Brad Davis Community Service award, Breanna Radford, Chemistry ’13, has made a name for herself in the world of Gamecock Athletics, throughout her four years at the University of South Carolina. She performed over 90 hours of community service, and was a recipient of the bronze medal from the SEC Indoor Championships while maintaining a 3.87 GPA. She had seven dean’s list semesters, garnering her a place on the SEC Academic Honor Roll for each year of her college career. Her ability to maintain an outstanding academic record is a credit to her organizational and time management skills. Radford’s success led her to become the team captain on the 2012-2013 season’s track and field team, which was ranked among South Carolina’s top 10 in four throwing events during the 2012-2013 year. Radford not only excelled on the field, but also in community service. Unlike most students, Radford used her weekends not just for studying, but to give back to the community that she felt had given her so much. She divided her time among 16 community service projects, which included mentoring with the Big Brother Big Sisters organization, volunteering at a free medical clinic and speaking with organizations such as The Girl Scouts of America and The Tucker Nursing Center. Radford’s passion for helping children in need has led her to pursue a career as a teacher of Chemistry.

Distinguished Professors recognized for 60 years with ACS

Distinguished Professor Emeritus William Gilkerson has been recognized for his 60 years with the American Chemical Society (ACS). His career with the University of South Carolina started as an undergraduate under Dr. Guy Lipscomb, Dr. Joseph Bouknight, Dr. Willard Whitsell and Dr. Willard Davis. He received his BS in Chemistry in June 1949 and went on to earn his Ph.D. from the University of Kansas researching the mechanism of organic reactions and kinetics. He then spent one-year as a post-doctoral fellow under Dr. Norm Davidson, professor at the California Institute of Technology. Through the ACS, Dr. Gilkerson developed a lifelong network of collaborators and friends, and also gained important experience during his second post-doctorate under Dr. H. Willard Davis. In 1955 he joined the Department of Chemistry as an assistant professor. His investigation of the electrical properties of salts in solution produced over 40 papers with 16 graduate students and undergraduate collaborators. Collaborating with students and teaching with his students was his joy while working in the department. Since his retirement in 1991, he has enjoyed communing with nature, feeding the birds and raising azaleas. In his spare-time, he is learning how to do conduct computer-based chemical simulations.

Distinguished Professor Emeritus Elmer “Sam” Amma has also been recognized for his 60 year membership with the American Chemical Society (ACS). Dr. Amma, son of immigrants, was born February 13, 1929 in Cleveland, Ohio. He joined the faculty in 1965 as a Physical Chemist researching crystallography and electron deficient molecules in order to understand their molecular structure. Prior to his arrival at USC, Dr. Amma received a Bachelors degree in Chemistry from the Case Institute of Technology (now Case-Western Reserve University) and earned his Ph.D. in Physical Chemistry from Iowa State University in 1956. He went on to pursue his post-doctoral studies at the University of Pittsburgh, conducting research on metal ion-aromatic complexes and electron deficient organometallics.

Over the course of his career, Dr. Amma received numerous awards and honors for his research such as the Stone Award in 1980-- awarded to an outstanding chemist in the Southeast by the Carolina-Piedmont Section of the ACS; the Russell Award for Research in Science and Engineering in 1982; and the Outstanding South Carolina Chemist award from the South Carolina Section of the ACS, in recognition of his excellent research in x-ray crystallography in 1982. He authored more than 100 papers primarily in the area of x-ray crystallography.
Sherri Howell-Redmond retired from the Department of Chemistry and Biochemistry in June 2013. While employed with the department, Sherri served as the Stockroom and Procurement Manager for the College’s A&S Science Stockroom (formally the Chemistry and Biochemistry Stockroom) from July 1995 until her retirement. Sherri was a dedicated employee who was a progressive thinker and doer. When she began her tenure as the Stockroom Manager in 1995, she immediately began looking for ways to transform the billing and inventory systems from a paper-only system to a computerized system. Her determination to bring technology to the stockroom has added immeasurable value for stockroom staff as well as to the faculty, other staff and students who frequent the stockroom to purchase or ship and receive items daily.

Sherri was instrumental in providing the leadership and work effort to consolidate the stockrooms of the Department of Chemistry and Biochemistry and the Department of Biological Sciences into what is now the A&S Science Stockroom. In addition to her successes as a Stockroom Manager, Sherri also played a vital role in the department as an excellent resource person for faculty, staff and students where she served as the Procurement Manager responsible for ordering and receiving goods and services for the department. With the consolidation of stockrooms, she has also provided procurement services for the Department of Biological Sciences’ teaching and research laboratories. Since she retired, Sherri spends her time with family, friends, doing work around the house, and of course she is still an avid world traveler. To celebrate her retirement, she visited Italy in the summer of 2013. We would like to take this opportunity to thank Sherri for her dedication and service to the department for approximately 18 years.

Bruce Corley retired from the Department of Chemistry and Biochemistry in February 2013. While employed with the department, Bruce served as the assistant to the Stockroom Manager as well as the position of Shipping and Receiving Clerk from 1996 until his retirement. Bruce was a dedicated employee who did whatever it took to provide faculty, staff and students with personable quality customer service as a stockroom employee. When a graduate student or staff member visited the stockroom and took the opportunity to converse with Bruce, he could always brighten their day with his humor and kindness.

Bruce was also known by many of the faculty, staff and students as a sports enthusiast and a “Big” Gamecock football fan. You could rely on Bruce to have up-to-date information on Gamecock football as he has been a season ticket holder for many years.

Since he retired, Bruce spends his time with family, friends and, of course, attending Gamecock football games. We would like to take this opportunity to thank Bruce for more than 28 years of dedicated service to the University. He worked 16 of those years with the Department of Chemistry and Biochemistry.

Dr. Thomas Makris joined the Department of Chemistry and Biochemistry as a tenure-track assistant professor in August, 2012. His research interests include natural product biosynthesis, bio-inorganic chemistry, and molecular recognition. He received his BA in Biology at the University of Pennsylvania and his PhD in Biophysics and Computational Biology at the University of Illinois Urbana-Champaign under the supervision of Professor Stephen G. Sligar, where he studied heme-enzyme oxygen activation mechanisms. As a postdoctoral scholar at the University of Minnesota, he examined diiron oxygenase catalysis and mechanisms of antibiotic biosynthesis in the laboratory of Dr. John D. Lipscomb. Dr. Makris’ laboratory aims to understand and manipulate metalloenzyme catalysis to produce natural products of pharmaceutical and industrial importance, including the biosynthesis of new antibiotics and anticancer agents, and fungible “drop-in” biofuels. He lives with his wife Christine Payne, and enjoys running and tennis.

Dr. Maksymilian Chruszcz joined the Department of Chemistry and Biochemistry as a tenure-track associate professor in August 2012. He received M.Sc. and Ph.D. degrees in chemistry at the Jagiellonian University in Krakow, Poland. Dr. Chruszcz specializes in structural biology. He was a postdoctoral research associate and later an assistant research professor at the University of Virginia in the department of Molecular Physiology and Biological Physics. At USC his research concentrates on the molecular basis of allergies and asthma. He is especially interested in inhaled and food allergens and their effects on human health. He moved to Columbia with his wife, Anna Gawlicka-Chruszcz, and their two daughters Zuzanna and Lucja. In Columbia, the Chruszcz family enjoys new friends, a mild winter and the Riverbank Zoo and Garden. Lucja, who is four, especially likes to visit the penguins and koala bears.

Dr. Stephen G. Sligar, where he studied heme-enzyme oxygen activation mechanisms. As a postdoctoral scholar at the University of Minnesota, he examined diiron oxygenase catalysis and mechanisms of antibiotic biosynthesis in the laboratory of Dr. John D. Lipscomb. Dr. Makris’ laboratory aims to understand and manipulate metalloenzyme catalysis to produce natural products of pharmaceutical and industrial importance, including the biosynthesis of new antibiotics and anticancer agents, and fungible “drop-in” biofuels. He lives with his wife Christine Payne, and enjoys running and tennis.
Dr. Chuanbing Tang, was appointed as an Assistant Professor in the Department of Chemistry and Biochemistry at the University of South Carolina in 2009. His research is deeply rooted in organic chemistry, polymer synthesis and on the discovery of functional building blocks. His research efforts extend from synthetic methodologies into medicinal chemistries. During his tenure at USC, he has built two major research thrust areas: (1) Transformation of renewable biomass into sustainable chemicals, monomers and polymers and further discovery of antimicrobial agents containing natural products; (2) Synthetic methodology of a class of cationic metalloccenium derivatives and their integration into polymeric frameworks via controlled and living polymerization, as well as the medicinal chemistry of organometallic compounds and polymers. In addition, Dr. Tang and his group have been exploring interdisciplinary research projects that are mainly based on the self-assembly of nanophase separated copolymers.

Over the last five years, he has led a research group of six post-doctoral associates, ten graduate students, and a number of undergraduate and high school students. Since 2009, he and his group have published about 45 refereed journal articles and have submitted 8 patent applications—with 3 issued. In addition, Dr. Tang’s group has secured more than $2,500,000 in external funding. Over this time, he has been recognized with an NSF Career Award, a PRF Doctoral New Investigator Award, a Thieme Chemistry Journal Award and was recently selected as the ACS PMSE Young Investigator and as a USC Rising Star. He has given 35 invited lectures at universities and national laboratories, and in private industry. Dr. Tang has also been invited by Green Materials as a guest editor to edit two thematic issues on “Next-Generation Renewable Polymers”. He also serves on the editorial boards for PLOS One, Green Materials, International Journal of Polymeric Materials, and ISRN Polymer Science. He was invited to contribute to the “Emerging Investigators” Issue of Chemical Communications and to the “Polymer Science: The Next Generation” Issue of Macromolecular Rapid Communications.

Dr. Tang is a strong advocate for the success and advancement of all of our students, both undergraduate as well as graduate, ensuring that his students receive the best possible advice regarding their academic experience and career path. Reflecting his excellence in teaching and mentorship, he has been nominated by undergraduate students for both The Ada B. Thomas Outstanding Faculty Advisor Award and The Distinguished Undergraduate Research Mentor Award; final winners are currently being selected by the University.
Dr. Caryn Outten

Dr. Outten’s research program is focused on two interconnected projects that bridge the fields of redox biology and bioinorganic chemistry: (1) identifying the mechanisms by which cells maintain adequate levels of the essential metal iron, and (2) characterizing intracellular factors that control mitochondrial redox balance and combat oxidative stress. Since disorders of iron metabolism and mitochondrial diseases are both significant human health issues, these projects are currently supported by research grants from the National Institutes of Health, the National Science Foundation, and the Research Corporation for Science Advancement. Based on his excellent performance and outstanding reputation in his field, Professor Outten was granted tenure and promoted to Associate Professor in the spring of 2011. He was also awarded the Ada B. Thomas Outstanding Advisor award for his excellence in teaching and mentoring.

Dr. Sophya Garashchuk

In 2011 Dr. Sophya Garashchuk was one of only three theoretical and computational chemists in the country to win a CAREER award from the National Science Foundation. She also received a Doctoral New Investigator award from the Petroleum Research Fund of the American Chemical Society. Garashchuk was a key contributor in establishing an NSF-funded computer cluster, equipped with state-of-the-art, user-friendly computational chemistry software. She facilitated user training and developed a course on computational chemistry. Now the cluster is widely used by researchers from numerous experimental and theoretical groups in the department. The cluster is also made accessible remotely to students and faculty at several undergraduate institutions in South Carolina. Research in the Garashchuk lab is focused on theoretical and computational chemistry, but the results are designed to have practical applications. “One of the outcomes of my work is a kind of movie, where atoms in molecules actually collide and rearrange,” Garashchuk said in the interview with Breakthrough. “It’s not the way most people think about chemistry, but it’s very revealing. You actually see reactions happen.” More exciting research is on the way from the Garashchuk group.

Dr. Wayne Outten

The recent resurgence of antibiotic-resistant strains of M. tuberculosis has prompted a call to develop new antibiotics to fight this tenacious human pathogen. Iron metabolism in M. tuberculosis represents a potential “Achilles heel” that can be exploited by novel classes of antibiotic compounds. Professor F. Wayne Outten’s research seeks to define the biochemical mechanisms utilized by bacteria to maintain iron metabolism under stress conditions encountered during infection, such as iron limitation and oxidative stress. He has characterized the novel functions of six proteins that form a Fe-S cluster biosynthesis system that is resistant to iron limitation and oxidative stress and is highly conserved in many pathogenic bacteria, such as M. tuberculosis. He and his students study the biochemistry and genetics of bacterial iron metabolism with the ultimate goal of designing new pharmaceuticals that limit iron availability or disrupt iron metabolism in human pathogens. His productivity in this area has been considerable with 16 research articles and 3 book chapters published since his arrival at the University of South Carolina in 2005; to date he has garnered over $2 million in research funding from the National Institutes of Health, the National Science Foundation, and the Research Corporation for Science Advancement. Based on his excellent performance and outstanding reputation in his field, Professor Outten was granted tenure and promoted to Associate Professor in the spring of 2011. He was also awarded the Ada B. Thomas Outstanding Advisor award for his excellence in teaching and mentoring.

Dr. Linda Shimizu

Dr. Shimizu received the B. A. degree in Chemistry and in German Language and Literature from Wellesley College, MA (1990) and a Ph.D. (1997) in Organic Chemistry at the Massachusetts Institute of Technology, where she worked with Prof. Daniel Kemp. She was an N.I.H. Post-doctoral fellow with Prof. John Essigmann, also at MIT. Dr. Shimizu joined the Department of Chemistry and Biochemistry as a Research Assistant Professor and an Adjunct lecturer (1998-2005). She initiated her independent research during this time and was awarded National Science Foundation grants on “Self-assembling Cyclic Ureas.” Her research focuses on developing simple
Chuanbing Tang

The Project Seed Program funded by the American Chemical Society (ACS), is considered one of the most successful ways of integrating research into education. Professor Chuanbing Tang received funding for the first Project Seed program in the State of South Carolina and it has been extremely successful over the last four years. The goal of the program is to attract high school students from economically disadvantaged families to participate in summer research and to stimulate their interest in scientific areas so that they eventually choose Science for their major in college. So far this program has attracted nearly twenty students and has involved seven faculty mentors and more than ten graduate students and postdoctoral researchers. Graduate students have learned how to mentor younger students, which is also beneficial to their future careers. All the program alumni who have enrolled in college are science majors and the rest are planning to be science majors when they go to college. Due to the success and impact of USC Project Seed Program, Dr. Tang was recently appointed by the ACS President to serve a three-year term on the Project Seed Committee. As a result of his leadership and mentorship to students and in scientific research and student education, he was also recently recognized with the ACS Leadership Development Award, Alternate, by the Younger Chemists Committee, which recognizes emerging leaders within our profession and within the ACS.

Qian Wang

Distinguished Professor Qian Wang has published over 170 publications in peer-reviewed journals and has maintained an active research program with external funding from NSF, DoE, DoD, and NIH. He researches the use of chemical biology tools to probe intracellular activities and the development of hierarchically structured nanomaterials to study the cooperative response of cells to extracellular matrixes. Over the past 10 years, he has supervised over 30 graduate students, 20 postdoctoral research fellows and over 60 undergraduate students. In addition, he has received numerous awards, including an NSF CAREER Award (2008), the Alfred P. Sloan Research Scholar Award (2008), the Camille Dreyfus Teacher Scholar Award (2008), the CAPA Distinguished Junior Faculty Award (2008), an NSF American Competitiveness Fellow Award (2009), the South Carolina Governor’s Young Scientist Award (2009), the USC Rising Star Award (2010), and was named an AAAS Fellow (2012). He has chaired or co-chaired dozens of international conferences. He serves as an Editorial Board Member of numerous journals and is a Board Member of the Chinese American Professor Association for Chemistry and Chemical Biology.

Sheryl Wiskur

Assistant professor Sheryl Wiskur began her career as a research assistant professor in 2005, followed by an appointment to a tenure track position in 2008. Her research is focused on developing new methods for obtaining enantiopure compounds, by taking racemic mixtures of alcohols and derivatizing one of the alcohols with silicon, leaving the other one alone. This is a facile way to separate two enantiomers, which is highly desirable in the pharmaceutical/chemical industry. The Wiskur group is also investigating the mechanism of this silylation reaction in order to understand and improve upon this reaction in the future. Dr. Wiskur has received the prestigious NSF CAREER award and was a 2013 USC Breakthrough Rising Star. She has published her work in high quality journals, co-organized a SERMACS symposium, and directs the local section of the Association of Women in Science which seeks to mentor the next generation of women scientists.
Reflections from
Winners of the 2013 Graduate Symposium

Christopher Hardy: Recipient of The Hiram and Lawanda Allen Award

Christopher George Hardy, a December 2013 PhD graduate in Organic Chemistry, was awarded the Dean's Dissertation Fellowship for the 2013-2014 year. The award supported the final stages of Christopher’s studies under the direction of Prof. Chuanbing Tang. Christopher’s research revolved around utilizing functional block copolymers for a variety of applications in advanced materials, energy storage, and lithography. Various desired functional groups were incorporated into the polymer side-chain, end-chain, and/or linker between polymer chains to confine the functional group either within a specific domain or at the junction between domains within a microphase separated polymer film. Films with highly dense, highly ordered nanopores were formed, which have direct applications in the semiconductor industry as templates in lithography. Christopher was chosen by ACS POLY to participate in the Excellence in Graduate Polymer Research Symposium at the ACS National Meeting in San Diego in 2012. Additionally, he won a travel award from the ACS POLY division to attend the IUPAC World Polymer Conference in Blacksburg, VA in 2012. Furthermore, he has won several awards and honors from our Department and the University including two Joseph W. Bouknight Teaching Awards, the James R. Durig Graduate Student Travel Award, the Charles Coker Graduate Student Fellowship, and the Hiram and Lawanda Allen Senior Achievement Award. In January 2014, Christopher started as a Research Chemist at Knauf Insulation outside Indianapolis, IN. He is focused on preparing the next generation binder systems for fiberglass insulation and also offers support to product and process development to improve current products and manufacturing processes.

Joseph Swanstrom: Recipient of The IRIX Pharmaceuticals Award

I came to USC in 2009 to begin graduate school in the Department of Chemistry and Biochemistry, because I believed the department faculty, quality and cooperative atmosphere set USC apart from other graduate programs. I joined the department in the summer as a Copenhaver student, because this gave me the opportunity to gain graduate level research experience before fall classes began. I then joined the research group of Dr. Michael Myrick, whose commitment to his research, students and family I hope to model through my career.

I feel very fortunate to have had the opportunities and experiences provided to me through the Chemistry and Biochemistry department and the Myrick group. I was invited to give several poster and oral presentations at Pittcon, EAS and SCIX, where I received a Society of Applied Spectroscopy student poster award. I also participated on five research cruises to the Martha's Vineyard Coastal Observatory in collaboration with scientists from the Woods Hole Oceanographic Institution and USC’s Biology department. Through departmental and graduate school competitions and symposia, I was able to present my research and interact with other USC students and faculty. As a result, I received the IRIX Pharmaceutical Award from the Chemistry Department and the George M. Reeves Graduate Fellowship from the Graduate School. These opportunities and experiences have shaped my graduate experience and I am very grateful to everyone at USC, especially those in the Chemistry and Biochemistry department, for their impact on my academic and scientific career. After graduating, I joined CIRTEMO as a senior scientist. This is a company that specializes in designing optical sensing platforms for applications ranging from life science to threat detection.
Qiang Zhang: Recipient of The Lipscomb Award

I enrolled in the department of Chemistry and Biochemistry at USC in January 2009 and joined Professor Richard D. Adams’ research group the same year. I graduated in August 2013 and joined Professor Hongcai Zhou’s group in the Department of Chemistry at Texas A&M University. My current research is focused on the design and synthesis of porous materials like Metal-Organic Frameworks for the use of gas storage, gas separation and catalysis.

My dissertation research was focused on the Synthesis and Characterization of New Transition Metal Carbonyl Cluster Complexes for Potential Applications in Catalysis. The Department of Chemistry and Biochemistry had all the facilities needed for all aspects of my research and this greatly assisted the development of my academic career and ensured the successful publication of our research results. I have 19 publications coauthored with Dr. Adams and I also won several awards including, the Joseph W. Bouknight Teaching Award, the James R. Durig Graduate Student Travel Award, the IPMI (International Precious Metal Institute) Metro New York Chapter Award, the Guy F. Lipscomb Award for Excellence in Chemistry following the March 2013 Graduate Symposium and a Summer Dissertation Fellowship. I have benefited from the training I received from the Department of Chemistry and Biochemistry, especially from Dr. Adams and his research group, for scientific knowledge, teaching experience and lab skills. This thorough training has helped me to be a better postdoctoral research associate.

The graduate program in the Department are very beneficial for students, not only in that we learn the cutting edge concepts of chemistry by taking the diverse courses offered by the department, but also from the regularly offered faculty seminars. The one I remember the most was given by Nobel laureate Professor Robert H. Grubbs. I had a chance to talk to him during the lunch organized by SACS and learned what a great chemist does every day to make their research excellent. As a result, I have developed habits that will help me throughout my career.

At the university level, the international student office of USC also takes care of international students very well. They have all kinds of events throughout the year including the fantastic world night event and the President’s Reception event where all the international students were invited to the president’s house to have dinner with President Pastides and to shake hands or take pictures with him. All of these events make life at USC even more colorful. The career center at USC is another benefit I took advantage of. Even though I didn’t find my job directly through the career center, nonetheless, my resume was polished a couple of times there, which was a plus and helped me to find my current position.

I love USC very much. I felt that the Department of Chemistry and Biochemistry was my home and thought of everybody there as my family. I sincerely hope that one day I can contribute to the development of the department to further improve its graduate program and to make the Department a home for all USC Chemists to remember.

We want to hear from you! Please tell us your news for inclusion in the USC Chemist.

Name (maiden, if applicable) ________________________________________________________________

Email ________________________________________________________________

Home phone ________________________________________________________________

Employer ________________________________________________________________

Work address ________________________________________________________________

Title ________________________________________________________________

City/State/Zip ________________________________________________________________

Work phone ________________________________________________________________

Mail to: USC Chemist

Department of Chemistry and Biochemistry
University of South Carolina

You can also e-mail us at chemweb@mailbox.sc.edu
In October 1998, the Department of Chemistry and Biochemistry dedicated the largest teaching auditorium in the College of Science and Mathematics to the memory of Dr. Joseph W. Bouknight. Dr. Bouknight taught thousands of students during his tenure at the University. Not only was he remembered as an extraordinary teacher but, quite remarkably, also because he remembered thousands of students by their name.

Shortly before his death, one of Dr. Bouknight’s former students, Dr. Thomas Stokes, established a fund in Dr. Bouknight’s name. Dr. and Mrs. Bouknight designated this fund to support the educational expenses of students who intend to teach Chemistry in high school. Dr. Bouknight felt that the quality of our students and their long-term career development starts before they reach the University. Donors who gave $250 have their names inscribed on a plaque at the rear of the Joseph W. Bouknight Auditorium, room (210) in the Jones Physical Science Center. Donors who gave at the $500 level were designated “Bouknight Chairholders” and have their names installed on a particular chair in the auditorium.

The plaque at the back of the room identifies these donors and their chairs. Please drop by and search for your name. The Bouknight Scholarship fund has supported over a dozen students who have gone on to become high school chemistry teachers in South Carolina. The fund also supports financial awards for our graduate students who demonstrate...
Alumni Spotlight: Jeffrey Boles

I was born in Cookeville, Tennessee in my father’s sophomore year at Tennessee Polytechnic Institute (now Tennessee Technological University); my first home was on the TTU campus. I grew up in Tullahoma, in southern middle Tennessee, and was active in band, science clubs and theater for several years. As a youth during the NASA Apollo years, I was drawn to the space program. The unknowns of space and the exploratory nature of space travel intrigued me. In elementary school, I recall spending more time building rockets made of paper and glue in class than paying attention to the teacher. I often found myself asking questions such as “why” or “could” but did not yet have the tools necessary to address these questions. A combination of Chemistry Sets and encouragement from my parents and a High School chemistry teacher named Jane Weaver solidified my interest in Chemistry.

I learned that if you were going to study Chemistry, TTU was the place to go. Both my father and Mrs. Weaver graduated from there, and this of course weighted my decision. In the Fall of 1980 we loaded up the blue Oldsmobile station wagon (simulated wood side panels) and headed to Cookeville where I was to be an ACS Chemistry major. It was a tough first year, and as I worked through the program, my thoughts returned to things I had been taught growing up about dedication and time management; once again, I thought about Mrs. Weaver and her passion for Chemistry. My Dad told me to set and work towards short-term, mid-term and long-term goals one at a time. Through perseverance and hard work, I did reach my goal of obtaining a BS in Chemistry from TTU, and during my senior year I was introduced to research. I turned down a full time job offer at a Cookeville Ink company to enter graduate school and work towards a Masters Degree in Chemistry, under Scott Northrup in Computational Biophysical Chemistry. I had studied many computer languages as an undergraduate and my dual interest in Chemistry/ Biology prepared me well for this course of research. My focus over the next two years was to write computer code to carry out molecular dynamics simulations; (software packs were not available in those days).

In 1987, an article came out in Chemical & Engineering News entitled “Selenocysteine, the 21st amino acid.” I had spent the previous two years learning about the molecular structure of life, chemical transformations of enzymes, and the difficulty of determining 3D structures of proteins. The 21st amino acid intrigued me because it contained selenium. Heavier than the atoms typically found in proteins and nucleic acids, it had been found site-specifically in just a few proteins. “Could this unnatural or unusual amino acid be exploited to solve the three-dimensional structure of proteins?” “Could other amino acids accommodate selenium?” “Could proteins somehow be tricked to utilize selenocysteine, or Selenomethionine instead of their wild type counterpart?”

When I was younger, and asked “Why,” I did not have the tools to answer those questions; this was changing. I searched for a Doctoral program where I could study such questions.

In the Spring of 1988, I accepted an invitation to visit USC. I was 25 and flew on an airplane for the first time. On this trip, I met Dr. Bruce Dunlap and Dr. Jerry Odom, who led Doctoral students in the “Selenium-Tellurium Research Group.” My interests in selenium fit well and with their valuable help, I was one of the first researchers to replace all of the methionines in E. Coli with Selenomethionine and completely characterize an unnatural selenoprotein. There were 14 perfect spheres of additional electron density surrounding the 14 methionine selenium atoms of the fully active recombinant protein we over-expressed. An X-ray crystallographer at Columbia University had recently developed a way of solving the structure of selenium-containing macromolecules utilizing a novel technology. Our work fit hand-in-hand with that technology. We published our paper in Biochemistry, and that technique is now the most widely used technique for solving 3D structures worldwide. Passion and persistence ruled once again. Over the next few years, with the assistance of a post-doc named Louis A. “Pete” Silks, I also synthesized a new amino acid, L-Telluromethionine (TeMet) and was the first to incorporate it biosynthetically into proteins. We published that paper in Nature. TeMet has proven much more difficult to bio-incorporate, but has shown some success worldwide for the solution of 3D structures, as well. My time at USC was precious. Bruce and Jerry’s push for excellence led me to win the Guy Lipscomb award, I enjoyed John Dawson’s Halloween parties and his insightful mentoring, and there were many evenings playing poker or 8-ball with fellow graduate students.

At an ASBMB meeting in Houston in 1992, I met a UAB Professor named Magnus Hook, who was about to move his lab to the Texas A&M Institute of Biosciences and Technology in Houston. This Institute was a research arm of

Continued on pg 12
the Biochemistry and Biophysics Department at Texas A&M, 60 miles down the road from Houston in College Station, TX. Dr. Hook had an army of molecular biologists and needed to hire some biochemistry post-docs to study the many proteins he was isolating and over-expressing. I was the first chemist to join him in Houston following graduation with my Ph.D. from USC that summer and this experience led me to enter academics as a profession.

My search led me full circle back to Tennessee Tech. I was born in Cookeville, spent my BS/MS years in Cookeville, and was now back in Cookeville as a tenure-track assistant professor. I was the first TTU graduate hired by the department of chemistry since the middle of the last century.

I immediately touched base with an x-ray crystallographer named Gerry Bunick at Oak Ridge National Laboratory who had offered me a job as a Post-Doc. I told Jerry I was interested in producing selenoproteins of the nucleosome core particle – a major subject area of structural studies at Oak Ridge. We began a fruitful collaboration over the next few years that led to my involvement in a project where we prepared and sent proteins to the Russian MIR space station via a NASA Space Shuttle for crystallography studies. I didn't get to go myself, but I guess it was the “next best thing to being there.” I did get to retain one of the crystallography chambers used on MIR to study our proteins. It is a prized possession and a testament to a passion first fueled in my youth.

Over the last decade, my research interests have broadened somewhat, but I still work with unnatural amino acids. One of the new ones produced from my lab at TTU is chiral selenatryptophan. Pete Silks, now at Los Alamos, played a large collaborative role once again. Currently, I apply new technologies such as Proteomics to further explore the arsenal of unnatural amino acids for use in structural studies. My passion for the environment has led me into the fields of Environmental Proteomics, chemical fingerprinting with mass spec, and to alternative energy (cellulosic ethanol). I’ve received over $1.4M in research grants since joining TTU. My passion for students and serving others led me to become Chair of the Chemistry department – something I never sought as a goal, but a role I’ve filled for nine years. Two years ago I served as President of the Tennessee Academy of Science – yet another opportunity to serve. Passion is a wonderful thing if it’s allowed to flourish. We in the scientific community of educators, parents and friends, need to fertilize the passion of the youth and actively seek ways to remove the barriers that may divert potential young scientists away from our profession. Attracting and retaining more students from a diverse cross section of our culture, inspiring them with passion and interest, may be our greatest challenge yet.

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**Top Faculty Award Highlights**

Since so many of our faculty have been recognized for their work and research, we would like to highlight some of our top university and outside award winners for the 2012-2013 academic year.

**Dr. S. Michael Angel**, received the Carolina Trustee Professorship, which is presented annually to University of South Carolina professors. This award is given to tenured full professors who have a demonstrated record of teaching excellence as well as an outstanding performance in research and in public service activities.

**Dr. Scott Goode**, recipient of The USC Educational Foundation Service Award the University’s most prestigious recognition of professional, campus, and community service by a faculty member.

**Dr. Michael Myrick** and **Dr. Qian Wang**, Dr. Myrick received the Michael J. Mungo Undergraduate Teaching Award which is given annually to an outstanding teacher in undergraduate courses. He received this award for his efforts over several years to completely revamp our undergraduate physical chemistry lab course. Dr. Wang was designated as a Carolina Distinguished Professor. Recipients of this distinctions are exceptional in their field and have established reputations as outstanding teachers, combining excellence in scholarship with a commitment to students and their intellectual development. Recipients have proven records in research and a concern with institutional growth and with their colleagues, especially the mentorship of junior colleagues.

**Dr. Caryn Outten** was recipient of the Governor’s Young Scientist Award for Excellence in Scientific Research. This award honors a young scientist whose achievements and contributions to science in South Carolina merit special recognition, promoting wider awareness of the quality and extent of scientific activity in South Carolina.

**Dr. Linda Shimizu**, who received the ACS Rising Star Award from the Women Chemists Committee (WCC) for 2013.
The WCC Rising Star Award recognizes up to ten outstanding women scientists a year, approaching mid-level career, who have demonstrated outstanding promise for contributions to their respective fields.

**Dr. Chuanbing Tang and Dr. Hui Wang**, who received a National Science Foundation (NSF) Early Career Award. This is the NSF’s most prestigious award in support of junior faculty who exemplify the role of teacher-scholars through outstanding research, and the integration of education and research. Recipients of the NSF Early Career Award are recognized for building a firm foundation for a lifetime of leadership in education and research.

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**STUDENT HIGHLIGHTS**

### 2013 Science & Engineering Fair Chemistry Award Winners

#### Junior Division
- **1st Place**
  - Alexia Millero
- **2nd Place**
  - Kelly Lifchez
- **3rd Place**
  - Sophia Altieri
- **Honorable Mention**
  - Chandler Rogers
  - Annabelle Summers

#### Senior Division
- **1st Place**
  - Irraj Iftikhar
- **2nd Place**
  - Elisabeth Brown
- **3rd Place**
  - Sam Nassab

### 2012-2013 Undergraduate Awards

#### ACS Division of Inorganic Chemistry Undergraduate Award in Inorganic Chemistry
- Nathan Trenor

#### American Chemical Society (ACS) Scholar
- Adam Jordan

#### ACS Undergraduate Award in Organic Chemistry
- Timothy Deaton

#### American Institute of Chemists Foundation Award
- Adam Griffith

#### Analytical Chemistry Award of the American Chemical Society
- Katherine MacMillian

#### Barry M. Goldwater Scholar
- Drew DeLorenzo

#### Betty R. Fundenberg Undergraduate Biomedical Research Award
- Jillian Claire
- William Richardson

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**College of Arts and Sciences Rising Senior Award**
- Sagar Patel

**College of Arts and Sciences Rising Senior Award in Marine Science, School of Earth, Ocean & Envir.**
- Drew DeLorenzo

**College of Arts and Sciences Rising Senior Award in Mathematics, from the Department or Mathematics**
- Elizabeth Minten

**CRC Freshman Chemistry Achievement Award**
- Victoria Anderson

**CRC Freshman Chemistry Achievement Award for Honors Chemistry**
- Alena Bensussan

**Hiram and Lawanda Allen Award for Excellence In Chemistry**
- Christine Hsieh

**Hiram and Lawanda Allen Scholarship for Excellence In Chemistry**
- Marcus Cole

**Hypercube Scholar Award**
- Alexandra Green
STUDENT HIGHLIGHTS

Joseph W. and Julia L. Bouknight Scholarship
Mary Bottorff
Kayla Budny

Joseph W. Bouknight Teaching Award
Spring 2012
Lee Blackmon

Fall 2012
Jacob Nelson
Magellan Scholar Fellowship Award
Eric Bringley
Job Grant
Jiu-ting Hsieh
Colin Johnson
Darya Kaborda
Eric Leonhardt
Brian Mullis
David Mysona
Julia Pribyl

Outstanding Senior Awards
Laura Allen
Elisa Bonnin

Outstanding Woman of the Year One of Five finalist
Jessica Kaczmarek

SEC Brad Davis Community Service Award
Breanna Radford

South Carolina Section of the American Chemical Society Outstanding Undergraduate
Darya Kaborda

Student Body President’s Scholarship from Student Government
Taylor Wapshott

Tommy L. & Fred E. Hickman, III Scholarship
Khaliilah Logan

The Presidents Award
Breanna Radford

Victor Laurie Junior Year Scholarship
Aaron Cameron

Victor Laurie Senior Year Scholarship
Julia Pribyl

Who’s Who Among Students In American Colleges and Universities
Lauren Allen
Elisa Bonnin
Shika Patel

2012-2013 Graduate awards
ACS Division of Organic Chemistry Travel Award
Robert Clark

Breakthrough’s Outstanding Graduate Students
Andrea Pascui

Cancer Research Travel Award
Maxwell Darch
Geoffrey Ford
Jittima Luckanagul
Anjua Modi
Chunxue Wang

Charles Murtiashaw Summer Fellowship
Arthur Korous

Deans Dissertation Fellowship
William Chance
Michael Geer
Nathaniel Gomer
Christopher Hardy
Andrea Pascui

Eastman Analytical/Polymer Travel Award
Brianna Cassidy
Alexander Gulledge
Joy Ihkweazu
Nirmal Lamsal
Xin Li
Max Molleo
Tony Neely
Di Song
Joseph Swanstrom

Graduate School Summer Dissertation Fellowship
Qiang Zhang

Graduate School Travel Award
Ravish Akhani
Maxwell Darch
Andrew Leitner
Nicholas Mank

Andrea Pascui
Kejian Yao

Graduate School Trustee Fellowship-George M. Reeves Graduate Fellowship
Joseph Swanstrom

Guy F. Lipscomb Award for Excellence in Chemistry and Biochemistry
Qiang Zhang

Hiram and Lawanda Allen Award for Excellence in Chemistry and Biochemistry
Christopher Hardy

Hiram and Lawanda Allen Summer Fellowship
Bobby Barker

Hoechst Summer Fellowship
Josef Maier
Derek Williams

IRIX Pharmaceuticals Award in Excellence in Chemistry and Biochemistry
Joseph Swanstrom

James R. Durig Graduate Student Travel Award
Mingwei Chen
Yuwei Kan
Andrew Leitner
Sonali Mitra
Yi Shen
Shengfang Sun
Yujing Wen
Qiang Zhang
Chen Zhao

Joseph W. Bouknight Teaching Award
Spring 2012
Kayley Fishel
David Arenivar
Vincenzo DiSantis
Alex Gulledge
Min Cai
Audrey Duke
STUDENT HIGHLIGHTS

Fall 2012
Gaya Elpitya
William Huntington
Hao Jing
Sarah Murphy
Yi Shen
Kangmin Xie

Spring 2013
Audrey Duke
Megan Gee
Lauren Grabowski
Jeffery Hayat
Joy Ihekweazu
Hao Jing

Leon Schecter Summer Fellowship
Paulina Panek

Oakwood Product Poster Award for Excellence in Chemistry and Biochemistry
Chen Zhao

Selected to co-chair the Gordon Research Seminar
Maxwell Darch

SPARC Graduate Fellowship
William Chance

Students for the Advancement of Chemical Sciences (SACS) Officers:
SACS President/Safety Officer
Anna Veldkamp

SACS Vice President
Vincenzo DiSantis

SACS Secretary
Vincenzo DiSantis

SACS Treasurer
Jeffery Hayat

Summer Copenhagen Fellowship
Ray Belliveau
Christopher Bird
Timothy Ferreira
Job Grant
Lin Lu
Parasmani Pageni
Cameron Rekully
Nathan Tenor

JPS (Journal of Polymer Science) spotlight article—Synthesis of Well-Defined Side Chain Fullerene Polymers and Study of Their Self-Aggregation Behaviors
Junting Li

Chemistry BS Graduates
*ACS CERTIFIED

August 2012
Ryan Kopacko
Andrei Kovaltshuk*
Christopher Pinion
Lucas Tidwell

December 2012
David Birt
James Bullard
Daniel Carter
Annie Chan
Michael Davis
Benjamin Gilbert*
Audrey Fennell
Nathaniel Hayford
Abby Horn
Jason Hubbard
Kelley Stetter*

May 2013
Lauren Allen*
Gregory Arms
Lee Blackmon
Elisa Bonnin*
Thomas Breen
Matthew Brewer
Shaneedra Calvin
Amy Carroll
Timothy Deaton
Fengyuan Deng
Ethan Dutton
Andrew Farag
Jeffery Gordon
Job Grant
Colby Greer
Christine Hsieh*
Adam Griffith
Katherine Macmillan
Heather Meraw
Elizabeth Oliver*
Christopher Pasco
Ankur Patel
Alyssa Petry
Breanna Radford

May 2013 cont’d
Prima Ray
Danielle Russell-Ford
Caitlin Sane
Joseph Simpson
Zachary Spinelli
Jonathan Tedder*
Eric Tisdale
Nathan Tenor
Williams Waters
Jaclyn Winnicki

Biochemistry & Molecular Biology BS Graduates

May 2012
Steven Glenn
Shikha Patel

List of Graduates 2012-2013

August 2012
Ph.D.
Brent Dial
Janna Register
Sharmistha Saha
Amelia Taylor-Perry
Samuel Tenney

M.S.
David Phillips

December 2012
Ph.D.
Daniel Collins
Nathaniel Gomer
Xiaoning Li
Maggie Moore
Yujing Wen

M.S.
Elizabeth Abernathy

May 2013 Graduates
Ph.D.
Elizabeth Balizan
Mingwei Chen
Cody Sheppard

May 2013 cont’d
Ankur Patel
Alyssa Petry
Breanna Radford

May 2013 cont’d
Prima Ray
Danielle Russell-Ford
Caitlin Sane
Joseph Simpson
Zachary Spinelli
Jonathan Tedder*
Eric Tisdale
Nathan Tenor
Williams Waters
Jaclyn Winnicki

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Yujing Wen

M.S.
Elizabeth Abernathy

May 2013 Graduates
Ph.D.
Elizabeth Balizan
Mingwei Chen
Cody Sheppard
William Breazeale (Ph.D., 1966) was given the 2013 Award for Volunteer Service to the American Chemical Society, and was named an American Chemical Society (ACS) Fellow. Dr. Breazeale was a student under Dr. O.D. Bonner.

Shae A. Brown (Ph.D., 2012) is a Senior Chemist with the Nylomega LLC. Brown was a student of Dr. Hans-Conrad zur Loye.

Harsimranjit Chahal (Ph.D., 2011) holds a post-doctorate position in the Biochemistry Department at Rutgers University. She gave birth to a daughter, Sahej, meaning “calm and patient.” She was born December 2012. Harsimranjit was a student of Dr. F. Wayne Outten.

Mahender Dewal (Ph.D., 2008) is currently working as a Research Fellow for Department of Chemistry at Massachusetts Institute of Technology. Dewal was a student of Dr. Linda Shimizu.

Jing Du (Ph.D., 2010) is currently a post-doctoral associate at Yale University. She gave birth to a son, Derek, in July 2012. Du was a student of Dr. John Dawson.

Jie Liu (Ph.D., 2011) is currently studying in the Master of Science in Analytics Program at North Carolina State University. Liu was a student of Dr. John Lavigne.

David Mitchell (M.S., 1982) is currently the Spine Surgeon at Orthopaedic Associates, P.A., Spartanburg, SC. He was S.C DHEC Board member from 2008-2011. He performed a Spine Fellowship with Dr. Rick Sasso in 2011. Mitchell was a student of Dr. James M. Sodetz.

Maggie Moore (Ph.D., 2012) holds a Tenure Track Position at Wingate University. Moore was a student of Dr. Sheryl Wiskur.

David C. Phillips (Ph. D. 2012) is currently a Lab Technician for Coca-Cola in Atlanta, GA. Phillips was a student of Dr. Mark Berg.

Christopher W. Pinion (B.S., 2012) is currently a graduate student at University of North Carolina at Chapel Hill and received honorable mention for the NSF Graduate Research Fellowship.

Alex Winters (B.S., 2007) is currently attending the Medical University of South Carolina-Medical School.

In Memoriam

Randolph C. Galipo received his Ph.D., in Analytical Chemistry, from the University of South Carolina, December 1997, “Sampling Protocols for the Analysis of Intractable Samples by Gas Chromatography and Mass Spectrometry.” Randy died in Rochester, NY, on November 28, 2012 at age 42. He is survived by his loving wife, Chiyoe Ueyama; parents, Charles and Nancy Galipo; sisters, Patience and Jeanne, and brother, Nicholas. Randy was a dedicated scientist at Kodak, an avid mountain biker and a nature lover. All of the Morgan research group knew him as a friend, and as the kind and caring person that he was, miss him dearly.

Dr. William “Frank” Kinard, a 1968 Ph.D. graduate, died June 11, 2013.

Dr. John W. Wakefield Jr., a 1945 BS graduate, died July 31, 2012.

Share your Story!

If you’re an alumnus of the Chemistry and Biochemistry Department and would like to share the story of your life in Chemistry and beyond USC, please feel free to write us at:

USC Chemist
c/o Department of Chemistry and Biochemistry,
University of South Carolina, Columbia, SC 29208
chemweb@mailbox.sc.edu
We look forward to hearing from you!
2012-2013 Faculty Highlights

Tenure Track Faculty Appointments
Dr. Donna Chen, promoted to full professor
Dr. Caryn Outten, promoted to associate professor
Dr. Maksymilian Chruszcz, associate professor
Dr. Thomas Makris, assistant professor

Other Appointments
Dr. Lukasz Lebioda, Guy F. Lipscomb, Sr. Professor of Biochemistry
Dr. Daniel Reger, Carolina Distinguished Professor
Dr. Qian Wang, Carolina Distinguished Professor
Dr. Hans-Conrad zur Loye, David W. Robinson Palmetto Professor

Faculty Awards and Honors
Dr. Elmer L. Amma, Honored as a 60 year member of the American Chemical Society
Dr. S. Michael Angel, Carolina Trustee Professor Award
Dr. Mark Berg, Journal of Physical Chemistry Editorial Advisory Board 2013
Dr. William Brewer, College of Arts and Sciences Teaching Award for Non-Tenure-Track Instructional Staff
Dr. John Dawson, was named to the Organization committee for the Georgian Bay (Canadian) International Conference on Biological Inorganic Chemistry and to The International Scientific Advisory Committee for the International Conference on Cytochrome P450: Biochemistry and Biophysics
Dr. Richard W. Gilkerson, Honored as a 60 year member of the American Chemical Society
Dr. Scott Goode, USC Educational Foundation Service Award
Dr. Andrew Greytak, Sustainable Carolina Curriculum Award
Dr. Michael Myrick, Michael J. Mungo Undergraduate Teaching Award, Gerald S. Birth Award
Dr. John Lavigne, SEC Visiting Faculty Travel Grant

Dr. Caryn Outten, Governor’s Young Scientist Award for Excellence in Scientific Research
Dr. Chuanbing Tang, USC Breakthrough Rising Star, Chosen by boards of Synlett, Synthesis and Synfacts as one of Thieme Chemistry Journal Awardees 2012, Committee Member on ACS Project Seed, PRF Doctoral New Investigator Award, NSF Career Award, Ten years participation with the ACS Division of Polymer Chemistry
Dr. Daniel Reger, USC Featured Researchers and Scholars of the Month
Dr. Linda Shimizu, ACS Women Chemists Committee (WCC) Rising Star Award for 2013
Dr. Qian Wang, American Association for the Advancement of Science (AAAS) Fellow
Dr. Hui Wang, NSF Career Award
Dr. Sheryl Wiskur, USC Breakthrough Rising Star

Featured Cover Publications
Dr. Brian Benicewicz together with Junting Li; their paper was selected as the spotlight article of Journal of Polymer Science, September 2013
Dr. Brian Benicewicz together with Anand Viswanath; their paper was selected as the cover of Langmuir, October 2013
Dr. Brian Benicewicz together with Tony Neely; their paper was selected as the cover of Macromolecules
Dr. Chuanbing Tang together with Dr. Kejian Yao had their papers selected as a cover article of Macromolecules, March 2013 issue and Macromolecular Rapid Communications April 2013 issue
Dr. Qian Wang together with Sheng Feng, and Xinrui Duan had their paper selected as the cover article of Integrative Biology

State Service Awards
Dr. George Handy, 30 years of service
Dr. John Lavigne, 10 years of service
Dr. Lukasz Lebioda, 30 years of service
Dr. Daniel Reger, 40 years of service

STAFF AWARDS

Sam Burgess completed the Fall 2012 GRANT certificate program
Dr. William Cotham won the College of Arts and Sciences Classified Staff Excellence Award
Dr. Lesa Offerman won a travel grant for the International School of Crystallography
Dr. Michael Walla won the College of Arts and Sciences Staff Excellence Award
We apologize if you have donated to one of our funds and it doesn’t appear in our publication. Please notify us at chemweb@mailbox.sc.edu, and we will be sure to update our records and include that information in our next publication.

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$____ Charles W. Murtiashaw III Memorial Fund (1B1681)
           (graduate fellowships and annual lectures in organic chemistry)
$____ Chemistry Department Fund (1A3039)
           (seminar speakers, and special projects)
$____ Derek Benicewicz Endowed Fellowship Fund (B11499)
           (supports organic students)
$____ Fred M. Weissman Lectureship in Analytical Chemistry (1B1755)
$____ H. Willard Davis Lectureship (1B1259)
$____ Hiram S. and Lawanda Allen Chemistry Research Award (B11137)
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$____ James R. Durig Graduate Student Travel Fund (1B1854)
           (research presentations at national and international meetings)
$____ Jerome D. Odom Fellowship in Chemistry and Biochemistry (B11164)
           (supports undergraduates and graduate students)
$____ Joseph W. and Julia L. Bouknight Scholarship (1B1342)
           (majors planning to teach high school chemistry)
$____ Max G. Gergel Award Fund (A31872)
           (award to top undergraduates)
$____ Peyton D. Teague Graduate Fellowships (1C1605)
$____ Ronald R. Fisher Lectureship in Biochemical Sciences (1B1844)
$____ Tommy L. & Fred E. Hickman Scholarship (1B11076)
           (undergraduate scholarship to promote diversity)
$____ Victor W. Laurie Scholarship (1C1712)
           (rising junior and senior chemistry and biochemistry majors)

$____ Total Contribution

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