Orbitals
What’s Happening in Chemistry Circles

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Congratulations December Graduates!

On Friday, December 18 at 7 p.m., twelve chemistry majors received their diplomas. Our BA graduates were Whitney Becker (cum laude), Kaitlin Burke (magna cum laude), Rash-Dat Danmola, Secondra Holmes, Katherine Popelka (magna cum laude), Andrew Tindall (cum laude) and Hannah Werner.

Our BS majors were Ian Kissell, Justin Law (summa cum laude), Kristina McCoy, Alexander Todd, and Jennifer Wallace (cum laude).

More information about the graduates can be found starting on page 3, the New Old Ags.

Dr. Paul Cremer Wins 2010 Edith and Peter O’Donnell Award

Dr. Paul Cremer, a professor of chemistry and a pioneer in the field of biological interfaces, was honored with the 2010 Edith and Peter O’Donnell Award in Science for his excellence in physical chemistry research as part of The Academy of Medicine, Engineering and Science of Texas’s annual meeting in San Antonio. He was cited by The Academy for his international leadership in “fundamental understanding of protein adsorption, multivalency, the interactions of salts and osmolytes with biomacromolecules, and the development of novel microfluidic platforms.”

Dr. Cremer joined the Chemistry Department at Texas A&M in 1998. His research group works at the interface of physical chemistry, biochemistry, sensor design and nanomaterial science. Overall, this work has led to a better picture of the details of how cells interact with their environment.

Dr. Cremer has developed an undergraduate physical chemistry laboratory based on his research that has been incorporated into CHEM326: Fluorescence Microscopy of Biological Interfaces. (Story adapted from article by Shana Hutchins, shutchins@science.tamu.edu)

Dr. Romo Studies Potential Anti-Cancer Agent

Dr. Romo and colleagues from Johns Hopkins University have found a potential anti-cancer mechanism for Pateamine A (Pat A). Pat A is a natural product that can be isolated from marine sponges, and was first synthesized by Dr. Romo’s group in 1998. These recent findings were published in Journal of Biological Chemistry.

A simplified, easier-to-synthesize derivative of Pat A called DMDAPatA exhibits similar activity and has been patented by Texas A&M. It continues to be evaluated as a potential anti-cancer agent for both human and pet applications.

Dr. Romo received his B.A. in Chemistry and Biology from Texas A&M. and his Ph.D. from the Colorado State University. He did postdoctoral research at Harvard University before returning to Texas A&M as a faculty member in 1993.

Dr. Romo taught majors’ CHEM227 last Fall, and has several undergraduates performing research in his group.
Good News!

Kevin Arendt (BS 2011) has been accepted for an internship with Colgate-Palmolive for Summer 2010 in Piscataway, NJ. He was also a McKnight Prize in Undergraduate Chemistry Finalist at UT Southwestern and just recently received a travel grant from the George Bush Presidential Library.

Hanna Bobrovnyk (BA 2010) participated in the Texas A&M Agrilife Conference Student Poster Competition on January 11-12th, and won 1st place in the undergraduate division for the research she’s been doing at Dr. Sacchettini’s lab for the past year! The title of her poster was "Drug design for inhibition of 3-dehydroquinase, an enzyme essential for the shikimate pathway of M. Tuberculosis".

Dakota Brock (BS 2013) was elected to the Socials Chair Position for ACS.

Amanda Cooke (BA 2010) has accepted an offer of admission from UT Houston Medical school next year. She is excited to be joining tons of other Aggies in the Texas Medical Center!

Austin Dobbs (BA 2010) has been admitted to the University of Michigan college of Pharmacy, and has interviewed with the University of Texas And University of Houston Pharmacy schools. He’s still waiting for admission decisions from both of them.

Yale Fu (BS 2012) accepted an offer extended by Colgate-Palmolive to work as a R&D intern this summer in Piscataway, New Jersey.

Alex Mijalis (BS 2012) also accepted an offer extended by Colgate-Palmolive to work as a R&D intern this summer in Piscataway, New Jersey.

Mike Moulder (BA 2010) has been accepted in the University of Houston College of Optometry, and will be attending next fall.

Trey Patterson (BA 2010) has accepted an offer of admission to the University of Texas Health Science Center at San Antonio Dental School.

Suji Shin (BS 2013) and her identical twin Hyesu were featured on TAMU’s main webpage on December 2. The profile featured their experience as freshmen in the Corps of Cadets in Squadron 21.

Kathy Webb (BS 2010) recently accepted a full time job offer from Ineos Polymers and Olefins USA in La Porte, Texas as a technical service engineer. She will start mid-June and is very excited for this new opportunity!

Jamie Wheeler (BS 2010) returns to College Station this spring after completing a Fall 2009 public policy internship with the American Association for the Advancement of Science in Washington, D.C. As part of Texas A&M’s Public Policy Internship Program, Jamie worked with the AAAS Center for Science, Technology, and Public Policy. Throughout the semester, Jamie covered Congressional hearings and briefings related to climate change, human spaceflight, and STEM education.

Upcoming ACS Activities

By Kathy Webb

The American Chemical Society Student Affiliate Chapter is very excited to begin this new semester. We have several new officers who were elected at the end of last semester to join the leadership team. Andrew Winn, a sophomore, is taking over the treasurer position. We have a dual socials and service chair headed by both Kurt Johnson, a junior, and Dakota Brock, a freshman. The position of historian will be headed by Alisha Bohnsack, a senior. Lastly, we have added on a new officer position of Green Chair headed by Benjamin Suefferlin. As most of our leadership are graduating seniors, this is an excellent semester to get involved if you desire to gain leadership experience in a professional organization! We have several exciting things planned for ACS this semester from fun socials to intriguing speakers. Scheduled meetings fall on every other Tuesday at 6 PM in the CHAN 2122. The dates for the meetings are 1/26, 2/9, 2/23, 3/9, 3/23, 4/6, 4/20, and 5/4. Our speakers include chemists from the department, Chevron, forensics, etc. As always dinner will be served! Dues for the semester are $15. Quite the deal. I hope to see and meet many of you this coming semester!
The New Old Ags

**Whitney Becker** was raised in Austin, TX. (She made the great decision to become an *Aggie* chemist not a longhorn.) Graduating in 3 ½ years with a B.A. in chemistry and a secondary teaching certification, Whitney is currently working at Rudder High School in Bryan, TX teaching chemistry and integrated physics and chemistry (IPC). The first semester of teaching has been very challenging yet equally rewarding! She strives to show kids the fun and excitement there is to be had in science! Outside of school, Whitney enjoys being outdoors, working out, and dancing.

**Kaitlin (Katie) Burke** was born and raised in Denton, TX. She always had aspirations to become a Veterinarian and worked in a veterinary clinic in high school when she wasn’t involved in her extracurricular activities. After taking a rewarding AP Chemistry course in high school, she decided to declare a Chemistry major at Texas A&M University in order to gain the knowledge and experience necessary to pursue her DVM. At the beginning of her freshman semester, Katie considered switching majors, but was convinced by her advisor Dr. John Hogg that she was in the right place. Her time in the Chemistry department taught her excellent problem-solving skills and personal motivation in addition to the specific knowledge of the Chemistry curricula. She worked as an undergraduate researcher in Dr. Christian Hilty’s lab, studying an integral membrane protein known as DsBB. Outside of classes she became a member of the Pre-Vet Society, participated in the many organizations at St. Mary’s Catholic Center, and served as the President of the TAMU Orchestra. After three challenging, but rewarding years in the Chemistry program, she was accepted into TAMU Veterinary School for the Fall 2009 semester. Katie chose to complete her B.A. Chemistry degree while completing her first semester of Veterinary school thanks to the hard work and collaboration of the Chemistry department advisers. Now that she has graduated, she will continue in the veterinary program to become a Doctor of Veterinary Medicine.

**Rash-Dat Danmola** was raised in the quiet town of Hempstead, TX. She is a first generation Aggie and enjoyed the traditions at A&M. While here she was involved in S.B.S.L.C and M.E.D.A.L.S. conferences and also worked in the Organic Chemistry Lab. Program. Rash-Dat is currently applying for nursing school and she actually has an interview with t.u. in two weeks. She has a strong faith in GOD and knows that this will allow her to achieve all of her goals and many more.

**Secondra Holmes** was born in Houston, TX. She recently graduated with a B.A. in Chemistry and has been granted a teacher’s certification. She began her journey at Texas A&M University as a Mechanical Engineering major, but after taking her first chemistry class she changed her major to Chemical Engineering and eventually to Chemistry. While pursuing her degree, she worked with the Texas Aggie Dance Team, HOSTS, the Cancer Society, and Fade to Black Dance Ensemble. Though teaching is a rewarding career, her true passion is within the field of pharmacy. She is currently applying to pharmacy school with goal and dream of becoming a pharmacist. Though she is sad to leave College Station behind, she is excited about pursuing life and creating a home with her new husband of the US Navy, Mark Holmes Jr.

**Ian Kissell**, class of ’10, considers home to be Midlothian, TX, although he was born in PA and grew up in Pampa, TX. In addition to a B.S. in chemistry, he also completed a minor in Spanish. Ian spent a year doing research with Dr. North in atmospheric chemistry, building an instrument to measure OH concentrations in the troposphere. During his time as a student, he was most involved at his local church, leading a Bible study, coordinating the international student outreach ministry, and planning the fall retreat. He will be heading to grad school in the Fall, although he is not completely sure for what, having applied to Ph.D. programs for chemistry and seminary. In the meantime, he is head-
More of the New Old Ags

Katherine Popelka grew up in Colleyville, TX and her inspiration to pursue chemistry came from a challenging high school chemistry teacher. She graduated magna cum laude from A&M with a BA in chemistry and a minor in biochemistry. During her time at A&M, she enjoyed attending A&M sporting events and participating in the pre-pharmacy society and American Chemical Society-SAC. She was treasurer for the ACS-SAC for three semesters. She especially enjoyed her undergraduate research experience with Dr. Ronald Macfarlane. She plans to attend pharmacy school in the Fall 2010 and is marrying an A&M chemistry PhD graduate, Thom Kelly, in February 2010. She appreciates all the professors and fellow students that made her time at A&M challenging, interesting, and fun.

Andrew Tindall was born and raised in Kingwood, TX. He received a B.A. in Chemistry with a Biochemical track. He managed a horticulture professor's websites for 3 1/2 years. He also was a Teaching Assistant for Chem 111 for two semesters. He married Andrea Geohegan just after graduation and moved to Austin to live with her and find work.

Alex Todd, Class of '09, was born in Sherman, Texas and raised in the tiny town of Bonham, Texas, about 70 miles north of Dallas. He chose Texas A&M for its strong traditions and outstanding academics. His high school chemistry teacher, Mr. Vaught, inspired him to pursue chemistry as his college degree. While at A&M, Alex participated in numerous intramural sports and was also a weightroom attendant at the Rec Center. He received his B.S. in Chemistry in December and will start working in January for Univation Technologies contracted through Kelly Scientific Resources at the Exxon Mobil site in Baytown, Texas as a Research Technician. Alex is still in search of a “sugar mama” so he can become stay at home dad and come out with his own line of home cookware.

Jennifer Wallace was born and raised in Cypress, TX and began her career as a first generation Aggie at Texas A&M as a B.A. Chemistry major planning on pursuing Pharmacy School, but after working in a pharmacy decided to choose another career path. After numerous degree changes (Thank you Dr. Hogg and Dr. Gaede!) to other Chemistry tracks and even Chemical Engineering, she finally found her home working for Dr. North researching Physical Atmospheric Chemistry and becoming very involved with the Catholic Student Association at St. Mary’s. Jennifer is graduating as a B.S. Chemistry major with a Business minor and will be attending graduate school at The University of Dallas in January of 2010 to pursue Theology. She hopes to combine science and religion and eventually teach High School Chemistry at private Catholic school or be a Campus Minister at a local University.

Hannah Werner was born in Bryan, TX and moved with her mother to Round Rock, TX where she graduated from McNeil High School. She earned a BA in chemistry and is a second generation Aggie. While at Texas A&M Hannah was the secretary, vice-president and president of the American Chemical Society Student Affiliate Chapter. Hannah was very active in the Tatanka homegroup and Fellowship Church. Hannah did research in the Singleton research group under Dr. Daniel Singleton. After graduation Hannah will work as a research assistant for Lynntech, Inc. She hopes to continue on to graduate school in biochemistry or immunology to eventually do crohn’s disease and ulcerative colitis research.
**Welcome to Recently Declared Chemistry Majors**

Allison Barnett  
Gregory Belew  
Mary French  
Simone Goines  
Rachel Harville  
Leane Lanthan  
Nadezda Ojeda  
Madeline Tipton  
Michael Thatcher  
Matthew Ward

**Old Ags**

**Catherine Baxter (BS ‘09)** was published in the inaugural issue of *Explorations*, the Texas A&M Undergraduate Journal. Her article is entitled “Flame Retardants in Texas Cliff Swallows” and features the research she did with Dr. Miguel A. Mora in the Department of Wildlife and Fisheries. Her article can be read at [http://ugr.tamu.edu/explorations](http://ugr.tamu.edu/explorations).

**Kelly Glass (BA ’09)** took the Optometry Admission Test in September and scored in the top 10% overall and made perfect scores in Quantitative Reasoning and General Chemistry. Her interview with the University of Houston’s College of Optometry was Friday, December 4th. She was one of three applicants who received acceptance without an interview.

**Anna (Schell) Mudd (BS ‘05)** just finished her second year working for the DPS (Department of Public Safety) in Austin doing Forensic Toxicology. She says, “It’s definitely been interesting and I’ve learned a lot! My chemistry background has been extremely helpful.” Friends may contact her at annak8@gmail.com.