

CHEMICAL Compositions

Department of Chemistry Newsletter
The University of Texas at Austin

Spring 2014

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Alumni - send us your updates and news:

chemalum@cm.utexas.edu

Make a Gift

Letter from the Chair

The spring semester is always an exciting and busy time for the Department of Chemistry. We are moving forward with the design plan for complete renovation of the west side of the '29 Wing of Welch Hall. Many of you will readily remember this wing as the location of the analytical and p-chem undergraduate labs. The design phase itself is a monumental task as the allocation of space among research and instructional space, facilities, and student/faculty meeting areas is planned and finalized for the next several decades.

We are also in the midst of our annual graduate

recruiting season. We host two visitation weekends each year in order to meet the prospective students and showcase our program. After a full slate of activities, a rowdy barbecue dinner is the perfect Texas capstone.

With the semester half over, we are also looking ahead with mixed feelings to the end of the semester. This means that our senior chemistry majors will graduate, some pursuing advanced degrees and many others starting their first jobs. We are sad to say goodbye, but we are proud of the success of our undergraduates and wish them well in all of their future endeavors. The Department's annual Spring Reception honors the



Prof. Jenny Brodbelt
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achievement of our recent graduates and offers an opportunity for alumni to revisit us. Our special speaker for this year's event is Dr. Larry Faulkner, Department of Chemistry Professor Emeritus and UT President Emeritus.

Focus on Giving: Scholarships and Fellowships

Chemistry Faculty-Regents Scholarship and Fellowship Fund

Established on February 8, 1990, this endowment provides merit-based scholarships to undergraduate and graduate students majoring in Chemistry. The ability to offer fellowships allows us to compete with other

top universities for the best students in the country.

Leon O. Morgan Fellowship

Established on December 2, 1993, this endowment honors Dr. Leon Morgan, a 1943 graduate of UT Austin. The fellowship benefits

graduate students in the Department of Chemistry.

To support these fellowships, please visit the [UTexas Online Giving page](#). Fill in the name of the fellowship you wish to support in the special information field. You may also visit the [College of Natural Sciences](#) for more giving opportunities. Thank you.

Faculty News

President Obama Names Allen Bard an Enrico Fermi Award Recipient

This January, President Obama named Professor Allen J. Bard a recipient of the Enrico Fermi Award, one of the government's oldest and most prestigious awards for scientific achievement. The award was established in 1956 in memory of scientist Enrico Fermi, 1938 Nobel Laureate in physics who achieved the first nuclear chain reaction.

The award recognizes Bard's many scientific achievements, plus his international leadership in electrochemical science and technology. He shares the prize with Professor Andrew Sessler, of the Lawrence Berkeley National Laboratory. Sessler is the father of our own Professor Jonathan Sessler.

On February 3rd, Bard and Sessler were honored for their achievement at a ceremony in Washington, DC. The award includes a citation signed by President Obama and



President Obama with Professor Bard (left) and Professor Sessler (Official White House Photo by Pete Souza)

Secretary of Energy Ernest Moniz, a medal bearing the likeness of Enrico Fermi, and an honorarium of \$50,000 (shared equally).

- [More information about the Enrico Fermi Award](#)

Course Transformation Project Gets Results

The University's Course Transformation Project is an initiative to enhance large, entry-level classes by transitioning from lecture-based instruction to a more student-centered, participatory approach. In-class activity focuses on problem-solving work between short "mini-lectures." These courses use peer-mentoring, teamwork, and technology in the classroom (such as i-clickers) to instruct undergraduates. In addition, outside of class, the students engage in online instructional materials in learning modules that guide the student through course content in the form of text and videos that are followed by short quizzes. This allows the students to engage the chemistry materials before coming to class, where they

apply them in active learning exercises. This style of active learning engages students and encourages application of the skills and concepts they've learned.

Associate Chair David Vanden Bout and Senior Lecturer Cynthia LaBrake are playing an important role in the project. As instructors for one of the first courses involved on campus, Chemistry 301, they have embraced the method and strengthened it by creating additional online resources for students' out-of-class work.

Course Transformation, Continued on page 4...

More faculty news...

- **Guangbin Dong** awarded Sloan Research Fellowship
- **Richard Crooks** received Pittsburgh Analytical Chemistry Award
- **David Vanden Bout** named 2013 Provost's Teaching Fellow
- **Jonathan Sessler** received 2013 ACS Southwest Regional Award
- **Cynthia LaBrake** received President's Associates Teaching Excellence Award
- **Ron Elber** elected fellow of the American Association for the Advancement of Science
- Effective in September, 2014 **Adrian Keatinge-Clay**, **Lauren Webb**, and **Katherine Willets** will be promoted from assistant to associate professors and awarded tenure.

Student and Alumni News

Alumni Updates

- **Diana L. Lundelius** (*B.A. 1978*) was named a Fellow of the Institute of Hazardous Materials Management (IHMM) at its September 2013 quarterly board meeting. She is currently an environmental scientist and air program enforcement officer for USEPA Region 6 in Dallas, Texas.
- **Christopher T. Brown** (*Ph.D. 1997*) recently moved to California and is the Senior Director of Process Engineering at Kateeva, Inc.

In Memoriam

- **Anthony M. Gawienowski** (*Post-doc, 1950's*) passed away November 1, 2013. As a faculty member at UMass-Amherst, he assisted in the creation of the Department of Biochemistry, now the Department of Biochemistry and Molecular Biology. Dr. Gawienowski's obituary can be found [here](#).
- **Steven A. Hofstadler** (*Ph.D. 1992*) passed away January 18, 2014. He most recently served as the Divisional Vice President of Research & Development for Ibis Biosciences, Inc. a division of Abbott Molecular, Inc. His obituary can be found [here](#).
- **Ronnie T. Smith** (*M.A. 2006*) passed away December 5, 2013. He had been teaching chemistry in Libya for a year and a half at the International School Benghazi. He was fatally shot while jogging. His obituary can be found [here](#).

Alumni! Submit your news to chemalum@cm.utexas.edu.

The updates will be printed in the next issue. Please include your full name and graduation year.

Graduate Recruiting Weekends Bring Promising Young Chemists to UT Austin

In February, the Department held our first graduate recruiting weekend of 2014, inviting 48 prospective Chemistry graduate students to Austin. The weekend included a scientific poster session, dinner with student hosts, a program overview, faculty seminars, interviews, and a group dinner at The County Line.

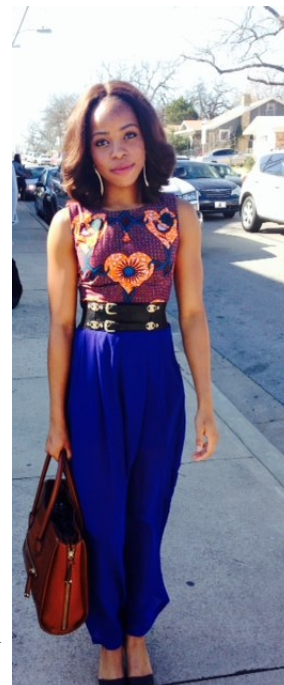
We do it all again the weekend of March 21st. We look forward to meeting the next group of young scientists!

Stellar student spotlight

Kristeen Onyirioha is a pre-med senior in the Department of Chemistry and a member of [Dr. Lauren Webb's research group](#).

What influenced your decision to attend UT and study Chemistry?

I fell in love with chemistry during my sophomore year in high school after taking my first chemistry class. My understanding for the topic seemed very innate, and I was continuously intrigued by the vastness of the subject. I decided that I would become a chemistry major after taking organic chemistry my junior year of high school. My decision to attend UT was greatly influenced by the challenge I knew the school would offer me, and the countless opportunities I could potentially get involved with that would broaden my understanding for chemistry.



Kristeen Onyirioha

Describe your current research project:

For the past two years I have been completing my research in the Webb group. My project involves the incorporation of peptides onto a gold (inorganic) surface in order to create a biologically favorable stable interface. This interface will serve as an attachment point for biological proteins that can be used for sensory techniques, as seen in many diabetic instruments.

What are your plans for the future?

I plan to attend medical school and gain my MD. I am extremely interested in the origins, symptom, and diagnoses of diseases, so it makes sense for me to pursue a path as a pathologist. I also want to work with cancer, and more particularly children with cancer. After years of serving as a practicing doctor I hope to be involved in medical missions to Nigeria where I will help institute better learning centers for students in Nigeria pursuing medicine.

Department News

Mallet Chemistry Library Renovated

The Mallet Chemistry Library moved into its current location in 1978, and for 35 years there were no significant changes to the layout of the library. But libraries have evolved in recent decades. The 21st century trend has been to re-imagine libraries as spaces where more people can work, interact, and be productive, while reducing the amount of prime real estate devoted to the storage of less-used printed archives.

In 2013 the University Libraries provided funds to carry out some long-desired improvements in Mallet. The first step was to select and send 10,000 print journal volumes to storage – materials to which campus users presently have stable electronic access. Then a section of shelving was removed to make room for the construction of two conference rooms in the southwest corner of the library, looking out into the Welch

lower courtyard. They boast attractive all-glass (and soundproofed) walls and projection systems. The rooms are available for booking by faculty, staff and students in the Chemistry Department and help fill a need for additional meeting space in this building. Nearby, a row of modern screened tables with tabletop power outlets and ergonomic rolling chairs was installed along the windows. Finally, we expanded and reconfigured the public workstation area in the front of the library with attractive new tables and chairs. The whole project was completed last September as classes began.

The Mallet Library is now more packed than ever with students doing their work, individually and in groups. Naturally, most of the chemistry collection is still here too, one of the largest in the U.S. Our library is a key part of the central commons of the



Chemistry Department, serving both students and researchers. Please drop in to see the changes whenever you can, or visit us virtually at www.lib.utexas.edu/chem/.

Glass Shop Featured on CNS Head Space

The Department of Chemistry's glass shop is an invaluable asset for our scientists. Glassblowers Mike Ronalter and Adam Kennedy provide custom pieces, make repairs, modify, and manipulate the essential glassware needed for stellar research that makes our department one of the best in the country.

Mike and Adam were featured in the College of Natural Sciences' Head Room video series, where they discuss the balance between art and craft. Click on the image to the right to check it out!



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Course Transformation, continued from page 2...

The project is working well for students in Chemistry 301; the failure rate is lower than ever and Vanden Bout and LaBrake are receiving [positive feedback from undergraduates](#) in the course.

For an example of the online resources used by students, visit ch301.cm.utexas.edu and ch302.cm.utexas.edu