

# THE MOLE STREET JOURNAL

DEPARTMENT OF CHEMISTRY AND BIOCHEMISTRY

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## Changing of the Guard

After more than a decade in the “chair” **Bill Durham** will return to full time teaching, advising and researching.

Durham was department chair number 25. The first was **T. L. Thompson** in 1873 and only three have served as long or longer – **Harrison Hale** (1918-1945) served 27 years, **Albert E. Menke** (1887-1902) served 15 and **Charles G. Carroll** (1905-1916) served 11 years.

During Durham’s reign the first African American faculty member and first full female professors were hired or promoted and research grants were at an all time high.

During his time, the Chemistry Building was finally renovated. He moved us out and in.

His leadership was evident during the deaths of beloved staff and faculty and with the many issues that arose from day-to-day. Any time of day in fact, since he was on call 24-7 to answer calls about the three buildings or for problems relating to blizzards, ice storms, fires and floods. Good thing he is calm, cool and collected.

He also expanded the staff and cre-

ated the *Mole Street Journal*.

In addition to his duties as chair, he was also chair of the Toxic Substance Committee and the Patent and Copyright committee, a consultant to the university



From left: Incoming chair Bob Gawley, alumna Grace Ong, and outgoing chair Bill Durham at commencement in May.

safety office, assistant chemical hygiene officer and served on the premed advisory committee and SURF review panel.

When there was nobody to teach classes, he signed up and when the students needed an advisor he filled the role.

He continued to be a consultant and manuscript reviewer and consistently served as a judge for numerous science

fairs. He will continue as the chemistry liaison on the Arkansas INBRE Research Conference committee and is the long-time treasurer of the local ACS section.

Evidenced by his 114 publications, he will easily revert back to researcher focusing on his research which involves electron transfer in metalloproteins, development of new transition metal complexes with potentially useful photoredox properties, and applications of analytical chemistry to forensic problems which currently include fingerprints and K2-spice.

Durham has already moved his office to the second floor (CHEM 245) and turned over the chairmanship to Distinguished Professor **Bob Gawley** July 1.

Gawley has been on campus since 2002, is a veteran of the U.S. Army. Most recently, he served as secretary of the AAAS chemistry section and as program chair for the ACS division of organic chemistry.

When Durham became chair, he turned his vice chair duties over to **Neil Allison**, who is also returning to full time teaching and research.

Allison holds the Liebolt Chair and is director of the Premedical Sciences program. Since 2000, among other things, he has served on the Faculty Senate Executive Board, was chair of the Campus Faculty, and Faculty Senate.

Professor **Dan Davis** is the next vice chair. Davis is the graduate advisor and has served as department chair for both biology and chemistry and biochemistry.

See inside for changes at the university level.

## Tyree Defends



**Bill Tyree** defended his doctoral dissertation “Transition Metal-Catalyzed Alkyl-Alkyl (sp<sup>3</sup>-sp<sup>3</sup>) Cross-Coupling, its Applications in the Chemistry of N-Boc-Pyrrolidine and Piperidine, and NMR Structural Studies of Organolithiums in Solution,” June 9 under the direction of **Bob Gawley**.

Tyree is from Madison Heights, Va., and has a B.A. in chemistry from UALR and an M.S. in chemistry from Virginia Tech.

At left: Bill Tyree

## Faculty News

### Changes at University Level

Professor **Robin A. Roberts** will be the new dean of the Fulbright College replacing **Bill Schwab** July 15.

Schwab served as interim dean and was appointed to a two-year term as dean in 2009 and will return to the faculty as University Professor of sociology and criminal justice.

Roberts is professor of English and women's and gender studies at Louisiana State University. She previously served as associate dean and director of interdisciplinary programs in the LSU College of Arts and Sciences, as well as being a provost fellow.

She will be joined on campus by her husband, Les Wade, who will be a professor in the drama department.

Professor **Todd Shields** has been named the dean of the newly formed Graduate School and International Education. Shields, who is professor of political science, has served as interim dean since **Collis Geren** retired in June 2010.

### 3D Virtual Reality News

A video about the virtual reality lab produced by NSF Science Nation is now online. The link is available on the department Web site [chemistry.uark.edu](http://chemistry.uark.edu).

In June, a group of 33 junior high Latinas visited the facility. The students were on campus attending a one-week camp focused on math, science and college awareness.

The lab is already being frequently used for research by **Suresh Kumar, Paul Adams** and Ralph Henry (BISC), who use the system to visualize proteins whose structure and function they are studying.

### Publications

"A Switch 1 Mutant of Ras Protein Cdc42 Exhibits Decreased Conformational Freedom" **R. Chandrashekar, O. Salem**, H. Krizova, R. McFeeters and **P. D. Adams**, 2011, *Biochemistry*, DOI: 10.1021/bi2004284.

### On the Go

**Matt McIntosh** gave a talk "Novel N-Based Rearrangements," at the Accelerating Reaction Discovery conference in Telluride, Colo., in June.

**Frank Millett** and postdoc **Jeff Havens** attended the Bioenergetics Gordon Conference at the Proctor Academy, N.H., June 26-July 1.

Millett presented a poster "Kinetic Studies of the Low Affinity Binding Site on Cytochrome C Oxidase and

Evolutionary Changes in the Binding Affinity of Cytochrome C."

Havens presented a poster "Flash Initiated Oxidation of Wild Type Cytochrome Bc1 Complex Reveals Half-Of-Sites Activity Between the Two Qo Sites of the Dimer, Electron Transfer Across Hemes B<sub>L</sub> and Diffusion of Quinol Substrate within the Complex Between the Qo and Qi Sites."

**Luti Salisbury** attended the ACS Publications Customer Advisory Board meeting in Wilmington, Del., June 9-10, where she co-presented a paper with Andrew White (director of Health Sciences Library, Stony Brook University) "Bibliometric Applications in Libraries: An Overview."

She then attended the Special Libraries Association meeting in Philadelphia, June 12-15. She presented a paper co-authored with **Gwen Mattice**, "Aiding Undergraduate Students in Understanding the Scientific Research Process through Collaboration of Chemistry Faculty and the Science Librarian."

She also presented a poster, co-authored with Josef Lanz and **Jeremy Smith** "Information Seeking Behavior of Science and Technology Students in the Current Information Landscape."

## Fulbright IT Hires Staff

Fulbright IT support has added staff to meet the many tech needs in the Fulbright College.



Sean O'Bryan



Adam Zorzin

**Sean O'Bryan** has been hired as a full-time computer operator. O'Bryan had been an intern from the Northwest Technical Institute. He will continue to assist

with tech support calls, classroom support, daily cases and on-going projects.

**Adam Zorzin** has been hired as a part-time technical service assistant and will assist with tech support calls, cases, and on-going projects. He has four years previous experience working on campus where he provided technical support to students, faculty and staff on various systems at UITS and athletics.

## Fire Alters Lab Courses

Students taking lab courses in chemistry and biology were given a free pass to wear shorts and sandals to class after an electrical fire closed the Science Building in May.

Dry labs and quizzes were given in various locations across campus.

Special thanks to **Kathy Matthews** in the Fulbright College dean's office for her work in relocating the lab sections.

Students in summer session II courses will have to adhere to the normal safety standards of long pants and closed-toe shoes as the Science Building will be in full service for labs July 5.

## Student News

### Undergrads Get Gold Key

The Phi Beta Kappa Alpha Chapter of Arkansas inducted 16 chemistry majors into the society at a ceremony May 13.

Chapter members must be invited and rank in the top ten percent of their graduating class.

This year 95 graduating seniors and 11 juniors received the distinctive gold key given to the most outstanding arts and sciences students.

The national society was founded in 1776.

#### Seniors

**Amir Francis**  
**Lauren Hall**  
**Ali Haydar**  
**Hannah Henson**  
**Nicholas Tinquist**  
**Daniel Vo**  
**Sigrid Johannesen**  
**David Lee**  
**Grant Meredith**  
**Rhys Moore**  
**Shannon Mumma**  
**Omar Salem**  
**Kirby Welston**  
**Caitlin Williams**

#### Juniors

**Samuel Dunn**  
**Devin O'Dea**

### Kumar Does Study Abroad

Undergraduate **Gaya Suresh Kumar** was among 12 students to travel to Sweden in a study abroad course on the Swedish health care system for 3 weeks in May and June.

**Neil Allison** and three other faculty members Fran Hagstrom, Jeanne McLachlin and Nan Smith-Blair also attended.

Visits to hospitals and health care facilities were an integral part of the experience. Lectures on the topics of socialized health care and improving health care systems were given.

The group also took cultural excursions to Stockholm City Hall, Stockholm Palace, the archipelago and museums in the cities of Stockholm, Gothenburg and Upsalla.



Gaya Kumar (in the middle) with the study abroad group who found a "Razorback" at Millesgarden Museum, Stockholm

### Undergraduate Degrees Awarded

#### Bachelor of Arts

**Jacob Dufour** \*

#### Bachelor of Science

**Olumide Akinola**  
**Melisa Bolanos**  
**Joe Bruton**  
**Sara Camp** \*  
**Mallory Delay**  
**Deborah Ho**  
**Katoria Holloway**  
**Ezekiel Lancaster**  
**Jacob Lavender** \*  
**David Lee** \*  
**Sarenthia McClelland**  
**Cristina Melean Murillo**  
**Grant Meredith** \*  
**Kyla Morinini**  
**Anisha Shepherd**  
**Mary Smith**  
**Ana Tran**  
**Kristin Watson** \*  
**Kirby Welston** \*

#### Departmental Honors

**Christopher DuVall** *Magna Cum Laude* \*  
**Lauren Hall** *Summa Cum Laude* \*  
**Sigrid Johannesen** *Summa Cum Laude* \*  
**Ashley Martfeld** *Magna Cum Laude* \*

**Rhys Moore** *Summa Cum Laude* \*  
**Shannon Mumma** *Summa Cum Laude* \*  
**Jonathan Schmidt** *Magna Cum Laude*  
**Trinh Tran** *Cum Laude*  
**Peter Wolfenberger** *Cum Laude*  
**Jacob Wooldridge** *Cum Laude*

#### Four Year Honors Students

**Kristi Anderson** *Cum Laude*  
**Joseph Courtney** *Magna Cum Laude*  
**Amir Francis** *Summa Cum Laude* \*  
**Ali Haydar** *Summa Cum Laude* \*  
**Hannah Henson** *Summa Cum Laude* \*  
**Mark Pickhardt** *Summa Cum Laude* \*  
**Molly Steen** *Cum Laude*  
**Nicholas Tinquist** *Summa Cum Laude* \*  
**Daniel Vo** *Summa Cum Laude* \*  
**David Williams** *Cum Laude*

#### Minors

**Brandon Banks**  
**Jeremiah Born**  
**Allen Busick**  
**Leah Fruechting**  
**Hiroko Nakao**  
**Jeremy Stout**

\* Denotes Fulbright College Senior Scholar

## Calendar of Events

### July

- 01..... Last day of classes SSI  
 04..... Independence Day, university closed  
 05..... First day of SSII classes  
 08..... Last day to drop a SSII class without a "W"  
 28..... REU/INBRE poster session and luncheon

### August

- 01..... Last day to drop a SSII course with a "W"  
 12..... Last day of classes SSII  
 15..... New graduate students arrive on campus  
 22..... First day of the fall 2011 semester

The above dates and events are listed on the department's Blackboard site  
<https://learn.uark.edu/>

## Summer Student Poster Presentations

Students in the REU, INBRE and HHMI summer programs will present their research at a poster session Thursday, July 28 on the second floor of the Chemistry Building from 10 a.m. to noon. The event is open to the public.

## University Closed for Independence Day

The University of Arkansas will be closed in observance of Independence Day, Monday July 5.

## Fall Break

For the first time in recent memory the university is taking a fall break. There will be no classes Oct. 17-18. This is an academic break, as the university will remain open.

*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 multidisciplinary research and education.*

## July Birthdays

- 01.....Roger Koeppe  
 05.....Leanne Mathurin  
 07.....Katarzyna Janowska  
 10.....Mack Clements  
 15.....Aaron Beuterbaugh  
 19.....Jingyi Chen  
 20.....Josh Sakon  
 24.....Anupama Aggarwal  
 29.....Marv Leister

*The publishing of birthdays is not intended to invade the privacy of anyone. If you prefer not to be included, please let us know.*

## Library Hours

CHBC Library (CHEM 225)  
<http://libinfo.uark.edu/chemistry>  
 575-2557

### Summer (May 23 to August 12)

Monday - Thursday....8 a.m. to 6 p.m.  
 Friday .....8 a.m. to 5 p.m.  
 Saturday - Sunday.....CLOSED

### Exceptions to summer

Monday, July 4.....CLOSED

### Interim (August 13 to 22)

Monday - Friday .....8 a.m. to 5 p.m.  
 Saturday - Sunday.....CLOSED

Fall hours begin August 22

## Safety Tip

Make sure that people know that you are working in the lab.

**No laboratory operations are without risk.**

More accidents happen when washing dishes than any other time.