

## Department Celebrates Together

Our traditional potluck dinner took place this year on Dead Day, December 7. The pictures below, taken by Heather Jorgensen, reflect what a delightful time it was to celebrate another completed semester with good food, laughter and fellowship. Special kudos go to Heather for arranging and setting up everything, KZ, Shawn, and Jerry for their physical labor, and the assorted grad students and staff who cleaned up.



### Special points of interest:

- Ayinuole receives scholarship
- December graduates announced
- New face in IT
- SURF awards announced
- Wang admitted to candidacy
- Sigma Xi receives award
- Graduate students helping others

### Inside this issue:

Faculty News	2
Student News	3
CUME Schedule	4
Calendar of Events	4
Library Hours	4

**On the Go**

**Roger Koepp** presented an invited talk, "Assessing Single Residue Ionization and Contribution to Lipid-Protein Interactions," at the thematic meeting of the US Biophysical Society, "Lipid-Protein Interactions in Membranes: Implications for Health and Disease," November 1-5, Hyderabad, India.

**Colin Heyes** will be presenting "Tuning Organic-Inorganic and Inorganic-Inorganic Interfaces of Quantum Dots for Ensemble and Single Molecule Fluorescence Applications" Jan 23 at Emory and Jan 24 at Georgia Tech.

**Publications**

Yang Song and **Feng Wang**, "Accurate Ranking of CH<sub>4</sub>(H<sub>2</sub>O)<sub>2</sub>

Clusters with the Density Functional Theory Supplemental Potential Approach," *Theo. Chem. Acc.*, in press.

Gopa Mandal, Molly Darragh, Y. Andrew Wang and **Colin D. Heyes**, "Cadmium-free Quantum Dots as Time-gated Bioimaging Probes in Highly-autofluorescent Human Breast Cancer Cells," *Chemical Communications*, 2013, 49, 624-626.

**Grad Student Awarded Scholarship**

**Kola Ayinuola** was selected as a 2013 recipient of the Dr. Martin Luther King, Jr. Academic Scholarship. He will be acknowledged at the Dr. Martin Luther King, Jr. Recommitment Banquet on Monday, January 21, 2013 at the Fayetteville Town Center, and at a

reception recognizing the scholarship recipients and other honorees prior to the banquet at the Bank of Fayetteville lobby. Congratulations to Kola for this well deserved recognition!

**Anniversary Celebrated**

Drs. **Paul** and Stephanie **Adams** celebrated their 12th Anniversary December 23, 2012. Paul and Stephanie were married at Morning Star Baptist Church, Cleveland, OH. Paul had just received his Ph.D. from Case Western Reserve University in Cleveland, and was ready to start his Postdoctoral training at Cornell University in Ithaca, NY. They are the proud parents of Sydni Jean (Age 8), Paul Dante' (Age 6) and Havyn Denise (Age 3).

**December Graduates**

The University of Arkansas Winter Commencement ceremony was held December 15, 2012 at Barnhill Arena. The commencement speaker was Ray Mabus, the Secretary of the Navy.

Graduate students receiving their Ph.D. degrees were **Roland Ngebichie Njabon**, advisor Bill Durham; **Nicholas Gleason**, advisor Roger Koepp

ll; **Elizabeth Emerson**, advisor Bill Durham, **David Clay**, advisor Matt McIntosh; **Christian Loeschel**, advisor Matt McIntosh; **Zheng Li**; advisor Xiaogang Peng; and **Nicole Vanderbush**, advisor Dan Davis. **Randy Espinal Cabrera**, advisor Julie Stenken, received the M.S. degree. Undergraduates will be listed in the June Mole.

Faculty in attendance were Professors Gawley, Sakon, Millett, Kumar, Koepp, Durham and Hinton.

**News from Fulbright IT**

Josh Watson joined the Fulbright IT department on December 17, 2012 as an intern from Northwest Technical Institute in Springdale, AR. The internship will last four weeks (or 160 hours). Once finished with the internship, Josh will graduate with honors at the top of the Computer Information Systems program. He also holds an associate degree in secondary education, which he obtained from Northern Oklahoma College. He attended NOC from 2000-2003 on a baseball scholarship and was chosen as the NJCAA All Conference 2nd Baseman in 2003. Because of his interests in technology and sports, Josh wishes to land an IT position with a school system where he can also help coach. He plans to further his qualifications by passing the Comp TIA network+ and security+ certifications in early 2013.



## Students Receive SURF Grants

STUDENT	MENTOR	TITLE
Emily Crossfield	Suresh Kumar	Purification and Characterization of Novel Affinity Tag
Arshan Dehbozorgi	Suresh Kumar	Characterization of a Themostable Quadruple Mutant of Human Fibroblast Growth Factor-I
Kaila Pianalto	Frank Millett	Electron Transfer Reactions Involving Cytochrome C, Cytochrome B5, and Cytochrome P450
Preston Scrape	Ingrid Fritsch	Toward Redox-Magneto-hydrodynamic Pumping Tuned by Placement and Orientation of Magnets and Electrodes
Kelsey Sparks	Roger E. Koeppe II	Do Transmembrane Helices Require Interfacial Anchor Residues?
Hans Wang	Paul Adams	Characterization of a Catalytic GAP Domain Derivative Protein of Phosphodiesterase 4D
Kelsey Wells	Nan Zheng	Visible Light Mediated [3 + 2] Annulation of Cyclopropylanilines with Allenes

## Sigma Xi Receives Program Award

The University of Arkansas chapter of Sigma Xi has been honored by the national office of Sigma Xi for a Sigma Xi Chapter Program Award. The Sigma Xi Society is an international society supporting interdisciplinary scientific research, science ethics, and informed science leadership in our communities and neighborhoods.

The U of A chapter was one of seven chapters recognized out of 523 chapters. The honor was based on the U of A chapter's Science Café Series for distinguished performance during the year ending June 30. The Chapter Program Award prize is given to chapters that have organized or hosted a single, outstanding program, especially one which is unique or has touched the lives of many. In particular, the Program Award recognizes initiatives which address the four major issues at the foundation of the Society's mission: honor in science and engineering, science education, science policy, and the public understanding of science.

Science cafés have been gaining popularity in many larger cities worldwide. The primary motivators for the growth of science cafés has been a collaboration between Sigma Xi and NOVA ScienceNOW, mirroring a similar system in the United Kingdom, Café Scientifique. Science cafés generally take place in casual settings, are open to everyone, and feature an engaging conversation with one or

more scientists about a particular topic. The U of A instituted its Science Café efforts in 2011 as a cooperative effort between the chapter (Douglas Rhoads, president), the College of Education and Health Profession's STEM Center for Math and Science Education, and the U of A component of the Arkansas Biosciences Institute (**Roger Koeppe**, coordinator). They have been meeting in the backroom of The Powerhouse restaurant with average attendance of 70-80 people.

Topics for the UA Science Café have included "Quakes and Shakes! Earthquakes in Arkansas," "Wild, Weird and Wicked Weather," "What you 'Water' Know: Water Quality in Northwest Arkansas," and "Food Safety and Food Security: The Fight to Protect Our Food Supply."

The next café meeting will be February 12, 2013. More can be found at the website: [http://cmase.uark.edu/ScienceCafe/Science\\_Cafe.htm](http://cmase.uark.edu/ScienceCafe/Science_Cafe.htm) (This article is reprinted from The University of Arkansas Newswire).



Jiang Wang passed his 7th cume to be admitted to candidacy November 30, 2012. Jiang received his B.S. degree from Lan Zhou University, China, in 2010. He started at the U of A in the summer of 2011. His advisor is Nan Zheng.

THE MOLE STREET JOURNAL IS AN  
INTERNAL PUBLICATION OF THE  
CHAIR, BOB GAWLEY.  
LESLIE JOHNSON, EDITOR

Mailing Address  
CHEM 119  
University of Arkansas  
Fayetteville, AR 72701

Phone: 479-575-4601  
Fax: 479-575-4049  
E-mail: cheminfo@uark.edu

We're on the web!  
chemistry.uark.edu/4842.php  
&  
Department of Chemistry and  
Biochemistry University of Arkansas

## Safety Tip: by Bill Durham

January is a good  
month to update  
your inventory.

  
Department of Chemistry  
and Biochemistry

## Excellence in the Central Science

### Grad Students Helping Others

Graduate Students Scott and Jacqueline Morris helped host a Christmas party at their ministry location, Parson Hills, Springdale, AR. Through generous donations they were able to feed 120 people, give gifts to the adult guests and presents/stockings to 85 children in the community while providing organized games, craft projects, stories, drinks and snacks. It was a huge success!



### 2012-2013 CUME Schedule

September 14	January 25
September 28	February 15
October 19	March 8
November 9	March 29
November 30	April 19

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.

## Calendar of Events

### January

- 9-18 Open Registration & Drop/Add for new students
- 14 Classes resume, 7:30 a.m.
- 21 Labs Begin
- 25 CUME
- 28 Seminar: Dr. Jennifer Kohler, Univ. Texas Southwestern Medical Center

### February

- 11 Seminar, Dr. Corey Stephenson, Boston University
- 15 CUME
- 19 Seminar, Dr. Hedi Mattoussi, Florida State University
- 25 Seminar, Dr. Carey K. Johnson, University of Kansas

## Library Hours

### Interim and Winter Break, Dec. 17, 2012—Jan. 13, 2013

Monday – Friday, Dec. 17-21	8 a.m.-5 p.m.
Monday-Tuesday, Dec. 24-Jan 1	CLOSED
Wednesday-Friday, Jan 2-4	8 a.m.-5 p.m.
Monday-Friday, Jan 7-11	8 a.m.-5 p.m.
Closed Saturdays and Sundays	

### Spring Semester Hours, Jan. 14, 2013—May 12, 2013

Monday—Thursday	8 a.m.-5 p.m.
Friday	8 a.m.-6 p.m.
Saturday—Sunday	Closed

### Exceptions to Regular Hours

Monday, Jan. 21 (MLK Holiday)	Closed
Friday, March 15	8 a.m.-5 p.m.
Monday-Thurs., Mar. 18-21 (Sp. Bk.)	8 a.m.-5 p.m.
Friday, March 22	Closed
Friday, May 10	8 a.m.-5 p.m.

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

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

