

New Faculty Member Jingyi Chen — In Her Own Words

1. Why did you choose the University of Arkansas? The university has a very dynamic research community and has excellent research centers, such as the MRSEC and HiDEC. The university continues to build infrastructures for research in nanoscience and nanotechnology. The department creates an energetic environment for new faculty to achieve their goals and has the state-of-the-art instrumentation for in-depth study of chemistry behind the fabrication process of nanomaterials.

Additionally, the university is located in the beautiful Ozark Mountains. It is a good place to find outdoor activities in the spare time to balance life and work. Altogether, I made my choice to come to the university to pursue my goals.

2. What are your research interests? My current research interests are to develop the wet chemical routes for synthesis of inorganic nanomaterials with well-defined size, shape, compositions and surface functionalities, to assemble different materials into multifunctional nanostructures, and to study the physical and chemical properties of these nanomaterials with the emphases on biological and environmental applications. Size, shape, composition and surface modifica-

tions are the main tuning knobs to optical, catalytic, electronic, and magnetic properties. The wet chemical approaches are to use the atoms as building blocks for nanomaterials. I am interested in the mechanistic study of chemistry that governs synthesis of the nanomaterials in terms of the formation of various sizes and shapes. Through the study, an understanding of the interfacial properties between different materials could also be established. Finally, I seek to apply these nanomaterials to improve the ways that cancer is diagnosed and treated, as well as to replace fossil fuel with renewable energy sources.

3. Why this research? Size matters! In the past decade, the rapid development of nanoscience and nanotechnology has fascinated the scientific community from electronics and communication to medicine and energy. Although the discovery of the fabrication methods has boomed since then, the parameters that govern the growth kinetics of nanomaterials is not yet fully understood. I am seeking to apply chemistry methods to unveil the mystery of crystal growth at the nanoscale.

4. Personal notes I was born and raised in Guangzhou, also known as Canton, in southern China. I like cooking, another way to experiment with very tasty



Jingyi Chen

results. Hiking is one of my the favorite outdoor activities. In my opinion, the state of Arkansas, known as the natural state, is a good place for hiking, especially in the northwest area.

5. What is your favorite thing about the area so far? I like to walk on campus when it breezes in the early morning or in the evening. As a new member to the department and the area, I enjoy social events with my colleagues and new friends. On Saturdays, shopping at the farmer's market is a must. I found the best oriental green long beans in the market for the first time since I have been in the U.S.

Doctoral Defenses

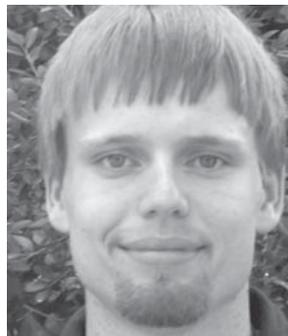
Four graduate students successfully defended their doctoral dissertations in August. More on page 2.



Coy Batoy



Chris Mazzanti



Mike Rutherford



Melissa Weston

Faculty News

Research News

Research and sponsored program awards granted to faculty at the university totaled \$82.3 million in fiscal year 2010, setting a record for the university and surpassing the goal of \$75 million set for 2015.

Department faculty brought in \$5.7 million or 25 percent of the total awards in the Fulbright College, whose faculty secured the most funding of all colleges at the university with \$21.9 million.

In Press

"Aqueous-phase Synthesis of Monodisperse Plasmonic Gold Nanocrystals Using Shortened Single-Walled Carbon Nanotubes," was published in the August 4 issue of *Chemical*

Communications. Authors are Jin-Woo Kim,* Hyung-Mo Moon, Mourad Benamara, **Joshua Sakon**, Gregory J. Salamo and Vladimir P. Zharo.

The Zheng lab published a paper "Fe(II)-Catalyzed Amination of Aromatic C-H Bonds via Ring Opening of 2H-Azirines: Synthesis of 2,3-Disubstituted Indoles" in *Organic Letters*. The authors are **Samaresh Jana**, **Mack D. Clements**, **Barry K. Sharp** and **Nan Zheng**.

On the Go

240th ACS national meeting, Boston, August 22- 26

Bob Gawley attended as chair-elect of the organic division.

Luti Salisbury presented "Using Web of Knowledge to Identify Publishing and-Citation Patterns of Campus Researchers at the University of Arkansas."

Charles Wilkins and **Ingrid Fritsch** attended the ACS Fellows Award ceremony where Wilkins was honored as an ACS Fellow.

Graduate student **Christian Loeschel** presented "Carbenes by Elimination of α -halosilanes under Mild Conditions."

Graduate student **Dave Clay** presented a poster "Toward the Asymmetric Total Synthesis of Antascomycin B via an Asymmetric Transfer Hydrogenation, an Ireland-Claisen (ICR), and an Allylic Diazene (ADR) Rearrangement Sequence."

Arkansas INBRE Research Conference Fall 2010

The department is again co-hosting the conference October 15-16, 2010 with the departments of biological sciences and physics.

All are invited to participate. There will be events in all three disciplines — invited faculty talks, student oral presentations, workshops, a poster session and social activities.

Undergraduates are invited to submit abstracts for the student oral presentations. Awards and cash prizes will be given for outstanding oral presentations and posters presented by undergraduate students.

Participation in the poster session is welcome to all. Those receiving funding from INBRE, COBRE or ABI are encouraged to present.

For more information and to register online see <http://chemistry.uark.edu/INBRE/> or e-mail cheminfo@uark.edu

Doctoral Defenses continued from page 1

S. Mariccor Andresa Batoy defended her doctoral dissertation "Applications of Matrix Assisted Laser Desorption/Ionization Fourier Transform Mass Spectrometry for Phospholipid Analysis," August 20 under the direction of committee chair **David Paul** and research advisor **Charles Wilkins**.

Batoy is from the Philippines and has a degree from the University of Santo Thomas.

Chris Mazzanti defended his doctoral dissertation for Cell and Molecular Biology "Studies of the Transmembrane Domain of Anthrax Toxin Receptor and a Double Anchored Mutant using NMR Spectroscopy," August 2 under the direction of **Roger Koeppel**.

Mazzanti is from McGehee and has a degree from University of Arkansas at Monticello.

Mike Rutherford defended his doctoral dissertation "Determination of Dopant Ion Mobility in Transition Metal Doped Semiconductor Nanocrystals," August 18 under the direction of **Xiaogang Peng**.

Rutherford is from Wooster, Ohio and is married to graduate student **Lindsay Rutherford**. He has a degree in chemistry and a minor in biology from Northwestern Oklahoma State University. He began his graduate career with a Doctoral Academy Fellowship. He is employed by NN-Labs Inc.

Melissa Weston defended her doctoral dissertation "Redox-Magneto-hydrodynamic (MHD) Microfluidics: Fundamentals, Optimization, and Applications to Analytical Chemistry," August 19 under the direction of committee chairman **David Paul** and research advisor **Ingrid Fritsch**.

Weston is from Ft. Collins, Colo. and holds a B.S. from Colorado State University. She participated in the department's REU program in 2005 and joined the department in 2006.

FITS Adds Staff

Fulbright IT Support (FITS), housed in CHEM 142, added two experienced staff members this summer.



Margie Hoskins and Adrienne Lopez

Margie Hoskins

joined in June. She worked for more than six years as a lab operator in the Arkansas Union computer labs.

Adrienne Lopez

joined in late August. She worked for the network client services group at UITS for roughly two and one

half years and prior to that she served on the UITS help desk.

In their new roles they serve as a front-line support for phone calls, greeting and assisting drop-in visitors. They will also participate in on-going special projects to help FITS meet critical deadlines.

Student News

Salem Receives Fulbright Awards

Omar Salem was selected as both the 2010-2011 Fulbright College Presidential Scholar and the 2010-2011 recipient of the J. William Fulbright Prize for Distinction in the Liberal Arts.

Each year, the university recognizes one student in each undergraduate college as a Presidential Scholar, which was established in recognition of the investiture of James E. Martin as President of the University of Arkansas. Faculty recommend students with a 4.0 GPA and who have completed 2/3 of their coursework on campus and the selection is made by Provost and Vice Chancellor for Academic Affairs.

The J. William Fulbright Prize for Distinction in the Liberal Arts is awarded to an outstanding rising senior. College faculty nominate seniors based on outstanding academic achievement, honors involvement, contributions to the department, research, and publication record.

Salem works in the lab of **Paul Adams** and plans to pursue a career in medicine. He is a graduate of Southside High School in Fort Smith, AR.



Omar Salem

Freshmen Begin with Prestigious Fellowships

Mathias Bellaiche of Fayetteville, and **Toby Bothwell** of Oklahoma City, Okla., are among five Fulbright College students to be named Sturgis Fellows.

The Sturgis Fellowship is unique because it requires the students to pursue a major in Fulbright College. It is made possible

by an endowment from the Roy and Christine Sturgis Charitable Trust of the Bank of America. Each Sturgis Fellow receives \$50,000, or \$12,500 per year, for tuition, room and board, and for discretionary funds to purchase computers, musical instruments, professional journals and to cover conference costs.

Rachael Pellegrino and **Christopher Sonntag** are among six other university students named Bodenhamer Fellows.

Pellegrino graduated from Mount St. Mary Academy in Little Rock and Sonntag graduated from Rogers High School. Each Fellow receives up to \$50,000 for four years of study to cover the normal costs of attending the university, and to make it possible to study abroad, attend professional and educational conferences, and conduct research under faculty supervision. This summer, the incoming fellows traveled to Washington, D.C.

The Bodenhamer Fellowships were established in 1998 by the Bodenhamer Foundation, acting through its trustee, Dr. Lee Bodenhamer, B.S.B.A. '57, M.B.A. '61.

To be considered, students must score at least 32 on the ACT and have a grade point average of 3.8 and present essays about their academic and community interests along with letters of recommendation. The Fellows are interviewed and selected by a committee of professors.

Department Scholarships

All undergraduate chemistry majors are invited to apply for department scholarships. The deadline to apply is September 17. Those selected will be notified by November. Interested students can apply online <http://chemistry.uark.edu/1678.htm>.

Chancellor Filmed in the Lab

Chancellor G. David Gearhart gave a preview of the renovated labs in the Science Building by filming his fall welcome speech in SCIE 316.

<http://newswire.uark.edu/Article.aspx?id=14518>

Enrollment Notes

More than 1300 students are currently enrolled in five sections of University Chemistry I. Last fall there were only three sections. Another note for those interested in the general chemistry course – this fall there are no 7:30 a.m. sections.

Staff Volunteer for Move-In

Heather Jorgensen and **Jennifer Sims** volunteered again this year for the campus move-in. They spent a few hours welcoming new students and issuing keys to dorm rooms. They plan to volunteer again next year.

Safety Tip

**Fires depend on fuel.
Please keep the number of
flammable reagents
outside of the flammables
cabinet to a minimum.**

Home Notes



Post doc **Jeff Havens**, B.S. '03, Ph.D. '10, and his wife Rebekah welcomed son **Coen Allen Havens** born July 19.

At left: Coen Allen Havens, poses with a full head of hair.

New Graduate Students



Maher Abu-Libdeh
Hometown: Joplin, Mo.
 B.S. University of Arkansas



Amir Aliyan
Hometown: Esfahan, Iran
 • B.Sc. Isfahan University of Tech
 • M.Sc. Sarif University of Tech
 (Enrolled spring 2010)

This fall the university is experiencing record enrollment.

Although maybe not a record, this fall there are 19 new graduate students — the largest number in at least a decade.

The newcomers this year are sports oriented, singers, former band members and dog lovers. A former Fayetteville High School swim coach is in house and a quarter of the graduate students are married.

Several university alumni and former REU students are also in the 2010 class.

All degrees listed are chemistry unless otherwise noted.



Esam Allehyani
Hometown: Makkah, Saudi Arabia
 • B.S. Teacher's College, Makkah
 (Enrolled spring 2010)



Khaled Al-Shurman
 (MicroEP)
Hometown: Al Shamali, Jordan
 • B.Sc. Yarmouk University, physics
 • M.Sc. National University of Malaysia, applied physics



Pooja Bajwa
Hometown: Batala, Punjab, India
 • B.Sc. Guru Nanadev University
 • B.Ed. Jammu University
 • M.Sc. Guru Nawak Dev University



Ryan Bauer
 Doctoral Academy Fellowship
Hometown: Fort Smith
 • B.S. University of Arkansas



Jacqueline Greer
Hometown: Allen, Texas
 • B.S. Stephen F. Austin State University



Mengjia Hu
Hometown: Wuhan, Hubei, P.R. China
 • B.S. Wuhan University



Samir Jenkins
Hometown: Fayetteville
 • B.S. Yale University
 • B.A. Yale University, political science



Geoffrey Keeler (CeMB)
 Doctoral Academy Fellowship
Hometown: Vilonia
 • B.S. UALR

New Graduate Students continued



Matthias Knust

Hometown: Jngolstadt, Bavaria, Germany

- B.S. University of Arkansas
- Universität Regensburg
(Enrolled spring 2010)



Leanne Mathurin

Hometown: Baton Rouge, La.

- B.A. Hendrix College, chemistry and history



Scott Morris

Hometown: Lake Jackson, Texas

- B.S. Stephen F. Austin State University



Christena (Hooten) Nash

*Doctoral Academy Fellowship
Hometown: Texarkana*

- B.S. University of Arkansas
- M.A.T. University of Arkansas, secondary education



Latisha Puckett

Hometown: Pottsville

- B.S. University of Arkansas, math minor



Carrie (Peter) Snyder

Hometown: Siloam Springs

- B.S. John Brown University



Brett Spahn

Hometown: Greenwood

- B.S. University of the Ozarks



Elizabeth Srader

Doctoral Academy Fellowship

- Hometown: Russellville*
- B.S. University of Arkansas



Eric Taylor

Hometown: Nicholasville, Ky.

- B.S. University of the Cumberlands



Brian Walker

Hometown: Tulsa, Okla.

- A.S. Blue Ridge Community College
- B.S. James Madison University
- M.S. University of Tulsa



Jonathan Wilson

Hometown: Baton Rouge, La.

- B.S. Northern Arizona University



Cody Wright

Hometown: Paris

- B.S. Arkansas Tech University

Calendar of Events

September

- 03..... Last day to drop a full semester class without a "W"
 06..... Labor Day - university closed
 10..... CUME
 13..... Department seminar
 17..... INBRE conference registration deadline
 20..... Department seminar
 23..... Department picnic
 27..... Department seminar

October

- 01..... Application deadline to graduate at the end of fall 2010
 01..... CUME
 04..... Department seminar
 06..... Early Progress grade reports e-mailed for 1000 and 2000 level classes
 11..... Department seminar
 15-16 Arkansas INBRE Research Conference
 18..... Department seminar
 25..... Department seminar
 29..... Last day to drop a full semester class or classes with a mark of "W"
 29..... CUME

November

- 01..... Department seminar
 01-12 Priority registration for spring 2011
 08..... Department seminar
 12..... Incomplete marks from the previous semester changed to failing
 12..... CUME
 15..... Department seminar
 22..... Department seminar
 24..... Fall break, no class, university is open
 25-26 Thanksgiving holiday - university closed
 29..... Department seminar

December

- 03..... CUME
 06..... Department seminar series concludes
 07..... Last day of fall classes
 07..... Last day to officially withdraw from all courses
 08..... Dead day, no classes
 08..... Department holiday potluck
 09-15 Final exams
 24-31 Holiday - university closed

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

**The University of Arkansas will be CLOSED
 Monday, September 6 in observance of Labor Day**

New Blackboard URL

The URL for Blackboard has changed to <http://learn.uark.edu>

There is now a Blackboard help desk at 479-575-6804. Additional Blackboard support resources can be found online at <http://bbsupport.uark.edu>.

September Birthdays

- 01.....Wes Stites
 03.....Becky Kerr
 07.....Jeff Havens
 08.....Denise Greathouse
 10.....Marti Scharlau
 13.....Bill Tyree
 14.....Reena Chandrashekar
 16.....Ryan Tian
 19.....Luti Salisbury
 20.....Peter Pulay
 23.....Andrew Zhou
 26.....Judy Sluppick
 29.....Heather Jorgensen
 30.....Roland Njabon
 30.....Menglia Hu
 30.....Kyunghao Lee

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>

Fall hours (August 23 - December 15)

Sunday2 p.m. to 6 p.m.
 Monday-Thursday.....8 a.m. to 9 p.m.
 Friday8 a.m. to 6 p.m.
 SaturdayCLOSED

Exceptions to regular hours

Sunday, Sept. 5CLOSED
 Monday, Sept. 6CLOSED

CUMES

Cumulative exams for graduate students will be given on the following Fridays.

Fall 2010: Sept. 10, Oct. 1, Oct. 29, Nov. 12 and Dec. 3

Spring 2011: Jan. 21, Feb. 11, Mar. 11, Apr. 1 and Apr. 15

Department Picnic

Thursday, September 23 at Agri Park -

Volleyball @ 5 p.m.
 Potluck @ 6 p.m.

Drinks, hotdogs, veggie burgers, hamburgers, buns and condiments will be provided. Look for sign-up sheets soon.