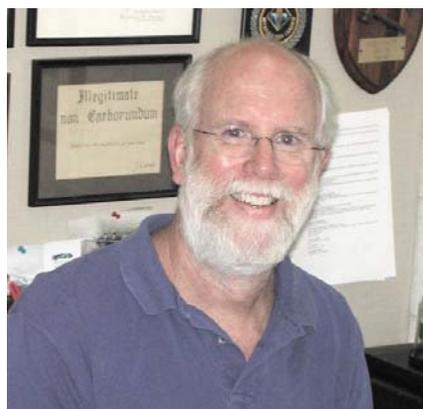


Tragic Loss of Professor Robert Gawley *by Bill Durham*



Spring break brought tragedy to the Department of Chemistry and Biochemistry with the sudden death of Professor Bob Gawley. He died while on a slopes of Steamboat Springs, Colorado during a skiing vacation. The tragedy occurred on Monday, April 18, the first day of spring break this year. Professor Dan Davis, vice chairman, has taken over the leadership of the department until a formal replacement can be made.

Bob moved to the U of A in 2003, after serving from 1977 to 2003 as a faculty member at Miami University. He became chairman of the department in 2011. Bob received a BS degree from Stetson University in 1970 and a Ph.D. in 1975 from Duke University under the direction of Steven W. Baldwin. He spent two years as a research associate at

the University of North Carolina, Chapel Hill working with Richard G. Hiskey.

Bob was passionate about organic chemistry, particularly the topic of stereochemistry and asymmetric synthesis. At the time of his passing he was teaching a graduate class on this topic. Group meetings, graduate committee meeting, professional meetings were all opportunities to discuss chemistry and he embraced them all. It was not unusual for graduate students during their annual graduate committee meetings to get side tracked as the faculty, inspired by Bob's comments, would get into discussions about the details of a particular reaction mechanism. With several decades of experience, it is not surprising that Bob could bring a lot these discussions. Fortunately some of this experience has been safely condensed for future generations into a book entitled *Principles of Asymmetric Synthesis, 2nd Edition* by R. E. Gawley and J. Aubé. Bob directed the research of more than 20 graduate students and 30 postdoctoral fellows over topics related to asymmetric synthesis as well as others.

His passion went beyond these settings as he tried to inspire others to pursue chemistry. While at the U of A, he and several collaborators were able to develop a program that allowed students to pursue degrees at the University of Regensburg, Germany and Dublin City University, Ireland. Through this program students from the U of A could take courses and pursue research at the other campuses and students from those campuses could do likewise at the U of A. The students would then receive degrees from both institutions.

It is not surprising that this passion lead to his involvement in organizations at the national level. For example, Bob was the chairman of the Organic Division of the American Chemical Society and secretary of the chemistry section of the American Association of Science.

On a personal level I will always remember a few things about Bob. The first is that he was really tall, at least I felt much shorter when talking to him. The second was the nomenclature "ee" which seemed to make young speakers a bit nervous when they were presenting their ideas during seminar. The third was the little toys called "Space pets" that demonstrated the ideas of chirality so uniquely. The fourth among a much longer list was the shared search for good examples of left and right-handed quartz crystals, which we never found.

Bob is survived by his wife, Lorraine O'Brien Gawley, and two sons, John Joseph and James O'Brien. Details about funeral and memorial services have not been finalized. Those who wish to express their condolences can best do so by making a donation rather than sending flowers. The family recommends the Cody St. John Foundation, which benefits the Colorado ski patrol with scholarships for medical and first-responder training. To learn more about this 501 ©(3) charity, please visit <http://whatwouldcodydo.org/about/> Also, a scholarship has been set up in his name at Stetson University. Please contact Carol Julian, VP for University Relations, Stetson University, 421 N. Woodland Blvd, Unit 8279, Deland, FL 32723 for the Bob Gawley Memorial Scholarship Fund.

Special points of interest:

- Death of Professor and Chair Bob Gawley
- Students admitted to candidacy
- Professor Wilkins honored
- STEM Research presentations
- Fulbright IT has a security tip

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Faculty News

On the Go

Kolawole Ayinuola is giving a talk, Intercepting the Breslow Intermediate via Claisen Rearrangement: Synthesis of complex tertiary alcohols without organometallic reagents, at the New Orleans ACS meeting, April 7-11, 2013.

Julie Stenken organized and presided over the following session at PittCon with five total speakers including herself: Detecting the Cytokine Network: Towards Understanding Chemical Communication in the Immune System. The title of her talk was: Cytokines Recovered during Microdialysis Sampling: Do they represent damage or disease? Philadelphia, PA, March 17-21, 2013.

Publications

R Katikanei, R Gulati, D Suh,

Joshua Sakon, A Seymour, T Ponnapakkam, R Gensure, Therapy for alopecia areata in mice using parathyroid hormone agonists and antagonists, linked to a collagen binding domain. Journal of Investigative Dermatology Symposium Proceedings, 2013 (invited).

Accomplishments

Under the support of the Vice Provost for Research and Economic Development, **Ryan Tian** has been involved in establishing two research centers on campus (the NSF-MAST Center and the Center for Low-Speed Electric Vehicle) plus building the teamwork with CelluForce (on cellulosic nanofibers).



Pictured left is Nandita Halder, one of our newest grad students from Bangladesh. Please refer to the Feb. 2013 issue of the

Mole for more information about her. She was incorrectly identified



If you've been wondering about the digging by the Science building, it is preparation for redoing the HVAC and hood ventilation systems during the latter part of the summer. And now you know.

Wilkins Recognized by ACS



Charles Wilkins, Distinguished Professor of Chemistry and Biochemistry, has been awarded the 2013 American Chemical Society Division of Analytical Chemistry Award in Chemical Instrumentation, sponsored by the Dow Chemical Company. The award recognizes Wilkins for his contributions to a broad range of analytical instrumentation techniques that have been document-

ed in over 300 publications in *Analytical Chemistry*, *Journal of the American Chemical Society*, *Journal of Physical Chemistry* and many other books and journals. He has also authored and/or co-edited nine books covering a variety of analytical instrumentation methods. These publications have been cited extensively in the chemical literature and include a dozen papers cited more than 100 times each and a lifetime total of over 7000 citations.

Wilkins is distinguished by his leading contributions in a wide range of analytical instrumentation, including advances in Fourier transform infrared spectroscopy, FT-nuclear magnetic resonance spectrometry, ion cyclotron resonance mass spectrometry and computerized laboratory data ac-

quisition and analysis. He has primarily been recognized for his contributions to the development of "hyphenated" instrument approaches to couple distinct types of instrumentation for analytical purposes. He was the first to combine GC-infrared and mass spectrometry into a single analysis system and also was a leader in the combination of HPLC analysis and nuclear magnetic resonance, in ways that opened the current use of HPLC-NMR for metabolomics studies. His work, in collaboration with Michael Gross, also pioneered the use of ICR-mass spectrometry for analytical applications.

Wilkins has served in numerous professional capacities, including terms both as Chair of the Analytical Chemistry Division and Chair of the Computers in Chemistry Division of the American Chemical Society. He also was Chair of the Department of Chemistry at the University of California, Riverside for seven years. He served on the Advisory Board of the National Center for Toxicological Research of the FDA and has served on many other advisory boards and panels. Wilkins also serves on the editorial advisory boards of numerous journals, among them *Mass Spectrometry Reviews*, *Applied Spectroscopy Reviews*, and, previously, two terms on the *Analytical Chemistry* editorial board. He is a Contributing Editor of *Trends in Analytical Chemistry*, and serves as Associate Editor of *International Journal of Analytical Chemistry*.

STEM Research Poster Presentations

Seven University of Arkansas Honors College students presented posters of their research in science, technology, engineering and mathematics February 6 in the state capitol rotunda in Little Rock, Arkansas. Students from across the university were nominated by their faculty mentors, and the office of the vice provost for research and economic development collected and forwarded the nominations to the STEM Posters-at-the-Capital committee for consideration. The seven U of A students joined more than 90 other undergraduates from 14 Arkansas colleges and universities who talked about their scientific work in lay terms with elected state officials, the media, and members of the general public.

The U of A students from the Department of Chemistry and Biochemistry include:

Emily Crossfield, from Little Rock, is an honors chemistry major under the mentorship of **T.K.S. Kumar**. Her research has the potential to purify proteins on a large scale at low cost, which would be useful in drug manufacturing. She is working to purify and characterize a clone of a portion of Fibroblast growth factors (FGF), proteins that promote cell growth and differentiation in a wide variety of cells and tissues.

Kaneshia Day, from Conway, is an honors biochemistry major under the mentorship of **Matthias McIntosh**. She is part of a team that is working to replicate a molecule produced by living organisms, called Antascomicin B, which may be useful in the treatment of neurodegenerative diseases such as Alzheimer's disease and possibly cancer.

Padma Manavazhahan, from Bentonville, is an honors biochemistry sophomore and Bodenhamer Fellow in Fulbright College. Her faculty mentor is **Paul Adams**. She is studying proteins that regulate cell growth and could potentially contribute to research on diseases marked by abnormal cell proliferation, such as cancer and tuberous sclerosis. Her work focuses on Ras homology enriched in brain (Rheb), a regulator protein that cycles between active and inactive forms, in effect functioning as an "on/off" switch in cell growth.

Preston Scrape, from Jonesboro, is an honors chemistry and math double major. **Ingrid Fritsch** serves as his faculty mentor. He is helping to develop a hand-held device that could conduct on-the-spot diagnosis and monitoring. He is tackling one of the tough problems inherent in developing such a small-scale tool: how to push fluid through channel the width of a human hair. He is working to refine a technique that uses ion currents and magnets to pull fluids to specific spots in hand-held devices.

Hans Wang, from Russellville, is an honors chemistry major. His faculty mentor is **Paul Adams**. His research into regulator proteins may eventually prove useful in detecting and treating cancer. He is studying the catalytic region of Phosphodiesterase 4D (PDE4D) and how it interacts with Ras homology enriched in brain (Rheb).

This article was originally published on the Arkansas Newswire.

Students Admitted to Candidacy



Beatrice Kachel, Bavaria, Germany, passed her 7th cume March 8, 2013 and is admitted to candidacy. She received a dual B.S. from the University of Regensburg and the

University of Arkansas. Her advisor is **T.K.S. Kumar**.



Nan Zheng.

Theresa Nguyen, Hot Springs, AR, passed her 7th cume March 8, 2013 and is admitted to candidacy. She received her B.S. from Henderson State University. Her advisor is



Sarah Phillips, Lee's Summit, MO, passed her final cume March 8 and is admitted to candidacy. She received her B.S. and M.S. from Missouri State University. Her

advisor is **Julie Stenken**.

News from Fulbright IT

Fulbright College IT Support is proud to add Joshua Watson to our support team as a Technical Service Assistant I, effective March 1. Josh will be providing a high level of desktop support as well as classroom support throughout Fulbright College. He comes to us as a graduate from Northwest Technical Institute's Network/Computer Repair Technician program. If you see him around the College, please welcome him to the team.

Fulbright College IT Support is proud to have Ariful Islam



join them in a full-time capacity starting March 1. Arif will be filling the role of Classroom Support Professional, and primarily be focused on classroom technology throughout Fulbright College, offering support for Fulbright College's more than one hundred technology classrooms and assisting in the design and implementation of new classrooms

through the college. Arif previously filled the role of Technical Service Assistant I, and moved to Northwest Arkansas from Queens, NY in 2011.

THE MOLE STREET JOURNAL IS AN
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&
Department of Chemistry and
Biochemistry University of Arkansas

Safety Tip: by Bill Durham

April. Your committee meeting is over, time to gear up for the summer. Take some time to clean up your bench, update the lab inventory, and make sure all the waste containers are scheduled for pickup.


Department of Chemistry
and Biochemistry

Excellence in the Central Science

Quick Security Tip from IT

So what if I do give my password to a phishing scam? What to expect next! This month we'll talk about some of the things that can happen if you actually fall for a scam. Consider what it would mean to give a perfect stranger a key to your house and your home address. Whenever you supply your ID and PW, hackers then have the control they need to take over your accounts. For your UARK account that could mean many resources; email, some campus web resources, and even your computer. Some common things that can occur: (1) Sensitive information kept in these locations can be compromised and shared unauthorized. (2) Numerous bounce-back messages begin to fill the inbox from both unknown and known providers. (3) Sent mail also fills as it's being used to distribute similar SPAM messages to other recipients. (4) Unwanted SPAM may be sent to individuals stored in the address book, (5) Hackers can change information in accounts that are compromised. Ways to correct this: (1) **CHANGE YOUR PASSWORD(S) IMMEDIATELY** <https://password.uark.edu> (2) Be sure you've also set a Question and Answer for resetting if password is lost. (3) Immediately forward suspicious mail, addressed to your UARK acct., as an attachment to security@uark.edu for analyzing. (4) Ask your tech support for help with corrective measures arscsup@uark.edu, 5-7512. Always safeguard your password!



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

April

- 1 Fry Lecture Seminar, Dr. Ronald Breslow, Columbia University
- 7-11 245th ACS Natl. Meeting, New Orleans
- 15 Seminar, Dr. Lingjun Li, University of Wisconsin-Madison
- 15 Deadline for Committee Meetings
- 19 CUME
- 22 Seminar, Dr. Younan Xia, Boston University
- 26 Grad School deadline for submitting dissertation for May 2013 diploma
- 29 Seminar, Dr. Raymond Schaak, Penn State University

2012-2013 CUME Schedule

All cumes are in CHEM 144, 5-6 p.m.

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

Library Hours

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

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

Friday, May 10	8 a.m.-5 p.m.
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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 LibGuide: <http://uark.libguides.com/content.php?pid=123035&sid=1057466>.

