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THE MOLE STREET JOURNAL

DEPARTMENT OF CHEMISTRY AND BIOCHEMISTRY

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Adams Inaugural Recipient of Award

Assistant Professor **Paul Adams** is the first recipient of the Nudie E. Williams Award for Diversity for 2009-2010.

The award is given in recognition of Nudie E. Williams, former director of African American Studies and associate professor of history. It honors a Fulbright College colleague who demonstrates a commitment to diversity.

The award was announced at the spring Fulbright College faculty meeting April 1.



At right: Paul Adams in his laboratory

Havens Defends

Jeffrey Havens successfully defended his dissertation "Ruthenium Flash Initiated Studies of Electron Transfer between Cytochrome c and b Hemes of Cytochrome b₅ and Sulfite Oxidase, and Electron Transfer within Cytochrome bc₁," March 17 under the direction of **Frank Millett**. He will continue in the Millett lab as a postdoc.



Jeff Havens in 2003

Havens is from Russelville and received a B.S. in chemistry in 2003 from the university. He currently serves as a finance specialist in the

U.S. National Guard and previously served in the U.S. Army Reserves.

He and his wife Rebekah are parents to 3-year-old son Kelton and 2-year-old daughter Savannah Kate. They are expecting their third child in July.

New Assistant Professor

After an extensive search, **Jingyi Chen** has been hired as assistant professor in the physical division. She is currently a research assistant professor in the department of biomedical engineering at Washington University in St. Louis.

She earned a doctorate in materials chemistry from the University of Washington under the direction of Younan Xia working on the synthesis and utilization of noble-metal nanostructures. She then was a postdoctoral fellow at Brookhaven National Laboratory researching carbon nanotubes and their application in drug delivery.

Chen will arrive in August and is schedule to teach Elements of Physical Chemistry (CHEM 3453).

13th Year for Fry Lecture

The Arthur Fry Lecture Series presents **Dieter Seebach**, Swiss Federal Institute of Technology, Zürich, who will present "β-Peptides - from Organic Synthesis to Biomedical Aspects," **Monday, April 26 at 3:30 p.m. in CHEM 144. A reception will take place before the seminar at 3 p.m. in CHEM 105.**

The Fry Lecture series began in 1997 through a generous donation from UA alumni, the late **Ves Childs**, M.S. '60, Ph.D. '63, and his wife **Holly**, B.S. '62, to honor University Professor Emeritus **Art Fry**'s accomplishments and years of unselfish devotion to the department.

See inside for more information.

Faculty News

Research News

The following publications were published in the journal *Analytical Chemistry*.

“Signal Amplification in a Microchannel from Redox Cycling with Varied Electroactive Configurations of an Individually-Addressable Microband Electrode Array,” Lewis, P.M.; Sheridan, L.B.; Gawley, R.E.; Fritsch, I., *Anal. Chem.* **2010**, *82* (5), 1659–1668.

“Investigations of Redox Magneto-hydrodynamic Fluid Flow At Microelectrode Arrays Using Microbeads,” Anderson, E. C.; Weston, M. C.; Fritsch, I., *Anal. Chem.*, article in press., available as ASAP, DOI: 10.1021/ac9020177.

Matt McIntosh is featured in an Arkansas 180 video “A Glass Act” highlighting university glass blower John Pace. The Arkansas 180 Series provides an eclectic review of the university campus, produced by the office of university relations.

The video appeared on the NSF science 360 Web site March 18, and is linked to the department Web site.

On the Go

Ingrid Fritsch and grad student **Melissa Weston** presented a poster “Redox-Magneto-hydrodynamic Microfluidics Without Channels and Compatible with Electrochemical Detection Under Immunoassay Conditions,” by Weston, Fritsch and **Christena Hooten**, at the Gordon Research Conference on Electrochemistry, in Ventura, Calif. in January.

Fritsch and undergraduate **Caitlin Williams** will present a poster “Studies in Developing Electrochemical Immunoassay Microarrays,” at the 217th Electrochemical Society Meeting, Vancouver, British Columbia, Canada, April 25-30.

Colin Heyes will give an invited talk at the Conference on Functionalized Nanomaterials: Bio helps Nano, April 26-28, at Los Alamos National Laboratory, Santa Fe, N.M.

Heyes presented “Connecting the (Quantum) Dots: Microscopic and Macroscopic Optical Properties of Colloidal QDs for Applications in

Quantitative Biophysics,” to the department of physics in March.

Jack Lay gave a department seminar at the University of Missouri, St. Louis in February.

David Paul gave a talk “Science and Technology: Undergraduates Developing Interdisciplinary Opportunities (STUDIO),” by Paul and Greg Salamo, at the Lilly Conference on College and University Teaching, in West Pomona, Calif., March 12.

Peter Pulay presented a poster “Geometry Optimization of Molecular Clusters,” co-authored by Jon Baker at the 23rd Austin Symposium for Molecular Structure and Dynamics, March 7-9 in Austin, Texas.

Joshua Sakon participated in the Advanced Photon Source (APS) Small Angle X-ray Scattering Short Course, March 27-31, to collect SAXS data. The APS is located within the Argonne National Lab outside of Chiacgo.

Alumni News

Jim Counce, B.A. '79, was named a 2010 Southeastern Conference (SEC) Men's Basketball Legend. The former Razorback four-year letterman and Academic All-America selection was formally honored at the SEC Men's Basketball Tournament in Nashville. One legend was honored from each of the 12 SEC schools.

Counce was a member of Eddie Sutton's first recruiting class and played on two teams that won Southwestern Conference (SWC) titles (before the university joined the SEC). He was an assistant coach under Sutton in the early 1980's, when the Razorbacks won two SWC crowns and earned consecutive berths to the NCAA Tournament.

He currently resides in Northwest Arkansas and is a cardiovascular and thoracic surgeon.

Mary Good, M.S. '53 Ph.D. '55, has been honored as a “Women of Influence” by *Arkansas Business*. Good is among 20 other women listed by the publication as being most influential in their fields in 2010, and who play important roles in the states business environment.

The article notes Good for the dozens of prestigious accolades and honorary degrees and for her leadership in top science organizations in both the government and private sector as well

as her commitment to science and research funding in public policy.

She is the founding dean of the George W. Donaghey College of Engineering & Information Technology at UALR.

Denise Greathouse, Ph.D. '93, has two photographs in the Looking at Our Landscape exhibit, at Crystal Bridges at the Massey, which will be on display April 2 through May 30. Photographs taken by residents of Benton, Carroll, Madison and Washington counties in Arkansas will be on display.

Tiffany Ricks, B.S. '03, completed her Ph.D. in the department of pharmacology at the University of North Carolina at Chapel Hill and is currently considering offers for postdoctoral research positions.

Matthew Whitley, B.S. '04, completed his Ph.D. in the department of biochemistry and biophysics at the University of North Carolina at Chapel Hill.

Whitley has accepted a position as a postdoctoral research associate in the lab of Angela Gronenborn in the department of structural biology and the Pittsburgh Center for HIV Protein Interactions at the University of Pittsburgh School of Medicine.

Student News



Molly Steen



Arshan Dehbozorgi



Saranthia McClelland



Kimberly Schleif

ACS SA Officers

The American Chemical Society Student Affiliate recently elected new officers for 2010-2011.

- **Molly Steen** – president
- **Jared Morphew** – vice-president
- **Arshan Dehbozorgi** – treasurer

Steen and Dehbozorgi are chemistry majors and Morphew is a biology major. Research Professor **Jack Lay** will continue as advisor.

Student Gets Award to Attend Conference

Chemistry major **Saranthia McClelland** received a Advancing Science Award to attend the 37th Annual Technology Conference of the National Organization for the Professional Advancement

of Black Chemists and Chemical Engineers, (NOBCCHE) in Atlanta, March 29 - April 2. McClelland is a student in the Adams lab.

Schleif Makes SEC Honor Roll

Senior **Kimberly Schleif** is one of 16 student-athletes on the soccer team to make the 2009 fall Southeastern Conference Honor Roll. To be selected to the league's honor roll, a student-athlete must have a GPA of 3.00 or above and have successfully completed 24 semester hours toward a degree.

In 2006, she made Arkansas history as the first Razorback player to ever earn Southeastern Conference All-Freshman Team honors.

Arthur Fry Lecture Series

Dieter Seebach will make his second appearance in Fayetteville after 26 years. He last visited in the department in 1984 and was a friend of former Professor Emeritus **Walt Meyer**.



Dieter Seebach

Seebach's insight into mechanism, structure, and reactivity is unparalleled. Throughout his career, his research has been significantly 'ahead of the curve', doing ground-breaking research well in advance of his peers.

In the past 40 years, he has published more than 800 papers and patents on the development of new synthetic methods, natural product synthesis, mechanistic studies,

structure determination and poly(hydroxyalkanoates). He has mentored 150 doctoral theses and has given numerous lectures.

He was born and raised in Karlsruhe, Germany and has a B.S. and Ph.D. from the University of Karlsruhe. In the mid 1960s he was a postdoctoral fellow and lecturer with E.J. Corey at Harvard University.

- Seebach's research has resulted in many awards and prizes:
- Dozentenpreis (Fonds der Chemischen Industrie, Germany)
 - Havinga Medal (Leiden, 1985)
 - Karl Ziegler-Preis (Gesellschaft Deutscher Chemiker, 1987)
 - Fluka Prize (Reagent of the year 1987)
 - 1992 ACS Award for Creative Work in Organic Synthesis
 - The Allan Day Award (Philadelphia OCC, 1995)
 - Hamilton Award (Lincoln, Nebraska, 1996)
 - Roger Adams Award (ACS) 1999
 - King Faisal Prize 1999 for Science
 - Yamada Prize 2000 (Japan)
 - Marcel Benoist-Preis (Switzerland) 2000
 - Chirality Medal 2002
 - Nagoya Medal 2002 (Japan)
 - Hofmann Medal (GdCh)
 - Tetrahedron Prize (2003)
 - du Vigneaud Award (2004)
 - Honorary Member of the Swiss Chemical Society (2004)
 - Ryoji Noyori Prize (2004)
 - Max-Bergmann Medal (2005)

Safety Tip

Do not assume anything about the toxicity of the materials with which you work

Calendar of Events

April

- 05..... Department seminar - John P. Wolfe, University of Michigan
 05-16 Priority registration for summer and fall courses
 09..... CUME
 09..... Last day to make up incomplete marks from previous semester
 12..... Department seminar - Jerry Ware, UAMS
 12-16 University academic festival
 15..... Last day for graduate students to defend research proposal
 15..... Special organic lecture - John Starrett, Bristol-Myers Squibb
 19..... Department seminar - W. Carl Lineberger, University of Colorado
 22..... Honors Night - UARK Ballroom
 23..... CUME
 26..... Fry Lecture - Dieter Seebach, Swiss Federal Institute of Technology,
3:30 p.m. (CHEM 144), reception at 3 p.m. (CHEM 105)
 29..... Last day of classes
 29..... Last day to officially withdraw from all courses
 30..... Final copies of doctoral dissertations must be submitted to the
 Graduate School for students graduating in May 2010
 30..... Dead Day, no classes
 30..... Science film "Total Synthesis- From Chemistry to Medicine"

May

- 01-07 Final exams
 08..... Commencement
 16..... REU students arrive
 16..... Last day to receive 100% cancellation of fees for summer session I
 17..... First day SSI
 18..... Last day to register for SSI
 20..... Last day to drop a SSI course without a "W"
 31..... Memorial Day holiday, university closed

June

- 14..... Last day to drop a SSI course with a "W"
 25..... Last day SSI
 27..... Last day to receive 100% cancellation of fees for summer session II
 28..... First day SSII
 29..... Last day to register for SSII

July

- 01..... Last day to drop a SSII course without a "W"
 05..... Independence Day, university closed
 22..... REU poster session and luncheon
 23..... Scientific Solutions vendor show
 26..... Last day to drop a SSII class with a "W"

August

- 06..... Last day SSII
 23..... First day fall semester

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

Planning ahead? Be sure to check the Blackboard calendar for fall events including home football games and community events, which might impact your plans.

April Birthdays

- 02..... Timothy Beng
 05..... Janice Chapman
 24..... Silvana Dormi
 29..... Jeremy Durchman

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

Spring CUMES

The cumulative exams for graduate students will be the following Fridays from 5 p.m. to 6 p.m. in CHEM 144.

April 9

April 23

Library Hours

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

Spring hours

- Sunday.....2 p.m. to 6 p.m.
 Monday-Thursday.....8 a.m. to 9 p.m.
 Friday.....8 a.m. to 6 p.m.
 Saturday.....CLOSED

Exceptions to regular hours

May 9CLOSED

Honors Night

Chemistry honors and majors will make poster presentations at Honors Night, Thursday, April 22, 2010 at the UARK Ballroom on Dickson Street from 4 p.m. to 5 p.m. The poster session is open to the public. Student awards will also be given.

Science Film

The film "Total Synthesis - From Chemistry to Medicine" will be shown Friday, April 30 (Dead Day) at 1 p.m. in CHEM 144.

The film was produced by **Matt McIntosh**, graduate student **David Clay** and Kathy Gearhart. The film describes the connection between medicine and natural product total synthesis, and is intended for a general audience.

The film is approximately 20 minutes long. A question and answer session will follow the screening.