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Frank Millett Appointed to Inaugural Bruker Professorship



Distinguished Professor **Frank Millett** was appointed as the inaugural holder of the Bruker Analytical Science Professorship. **Dean William Schwab** made the surprise announcement during the department seminar Feb. 28.

Millett can use proceeds from the Bruker endowment to advance his research, support graduate students and recruit outstanding faculty to the department.

Bruker Corporation is a leading provider of high-performance scientific instruments and solutions for molecular and materials research, as well as for industrial and applied analysis.

This professorship is one of two established through Bruker Daltonics with matching funds from the University of Arkansas' billion-dollar Campaign for the Twenty-First Century.

At left: Dean Schwab presents a medallion to Frank Millett

Success of a Student Athlete

Junior chemistry major **Benjamin Skidmore** scores on and off the track. *More inside*



Benjamin Skidmore

Photo Courtesy of Razorback Athletics

Honors Undergraduate Recognized

Senior chemistry major **Jonathan Schmidt** received one of five best speaker awards at the University of Memphis, Department of Chemistry's 31st Annual Undergraduate Research Conference Feb. 26.

Fifty-one students from seven states presented oral presentations.

Schmidt's presentation, "Surface Plasmon Resonance Affinity Analysis of Cytokine," summarizes his honors thesis research, which explores the use of surface plasmon resonance to help predict the rate of binding events between heparin and cytokines.

Schmidt is a member of the University of Arkansas Honors College and his research mentor is **Julie Stenken**.

He graduated from Houston High School and is the son of David and Debbie Schmidt of Germantown, Tenn.



Jonathan Schmidt and mentor Julie Stenken

Faculty News

On the Go

Matt McIntosh gave a talk "The Role of Organic Synthesis in Drug Discovery," at Pittsburgh State University, March 11.

Charles Wilkins and **Ingrid Fritsch** attended PITTCON in Atlanta, March 13-18.

Biophysical Society Meeting

Baltimore, Md., March 5-9

Roger Koepp chaired a session Interfacial Protein-Lipid Interaction and gave a talk "Proline Kink in GWALP23," Roger E. Koepp, Johanna M. Froyd-Rankenber, Vitaly V. Vostrikov, Christopher D. DuVall, Denise V. Greathouse, Christopher V. Grant, Stanley J. Opella.

He also was a coauthor of two presentations by colleagues. "Antidepressants Modify Lipid Bilayer Properties," Ruchi Kapoor, Helgi I. Ingólfsson, Roger E. Koepp, Olaf S. Andersen, and "Statins Modify Bilayer Mechanical Properties," Subhi J. Al'Aref, R. Lea Sanford, Roger E. Koepp II, Olaf S. Andersen.

Faculty posters presented

"In Vivo Determination of Arrangement of Subunits in Pentameric Glutamate Neuroreceptors Using FRET and Polarization Anisotropy Decay Imaging," Nela I. Durisic, Claudia M. Wever, Tanja Starc, Antoine G. Godin, Joseph A. Dent and **Colin D. Heyes**.

"Characterization of Chain Order of an Acylated-Lactoferricin Peptide by Solid-State NMR Spectroscopy and All-Atom Molecular Dynamics Simulations," **Denise Greathouse**, Tod D. Romo, and

Alan Grossfield. She was a coauthor on a poster presented by colleagues. "Lactoferricin Peptides Characterized using All-Atom Molecular Dynamics Simulations and Solid State NMR," Tod Romo, Denise V. Greathouse, Alan Grossfield.

Post doc posters presented

"Characterization of Cdc42 vs. Cdc42(T35A) in the Switch Regions" **Reena Chandrashekar**, Paul Adams.

"A Structural Based Design of a Novel Protein Affinity Tag for Purification of Recombinant Proteins," **Srinivas Jayanthi**, Suresh Thallapuram.

Graduate student posters presented

"Using Tyrosine to Anchor a Transmembrane Peptide," **Nicholas J. Gleason**, Denise V. Greathouse, Roger E. Koepp.

"Expression and Characterization of Cytochrome C6 From Chlamydomonas Reinhardtii Using A Designer Gene," **Nicole L. Vanderbush**, Brian St. Clair, Marylyn Davis, Dan Davis.

"On the Treatment of Dynamics During Combined ^2H GALA and $^{15}\text{N}/^1\text{H}$ Pisema Analysis of Transmembrane Peptide Tilt using Solid-State NMR Data," **Vitaly V. Vostrikov**, Christopher V. Grant, Stanley J. Opella, Roger E. Koepp.

Undergraduate posters presented

"Membrane Interactions of Antimicrobial Retro-Lactoferricin Peptides by Solid State NMR and Partitioning Assays," **Amir V. Francis**, Denise V. Greathouse.

"Comparison of Proline Substitutions at Positions 8 and 10 in WALP19,"

Joseph M. Courtney, Vitaly V. Vostrikov, James F. Hinton, Roger E. Koepp.

"Influence of Glycine Substitutions on Designed Proline-Containing Transmembrane Peptides," **Christopher D. DuVall**, Vitaly V. Vostrikov, Denise V. Greathouse, Roger E. Koepp.

"Rational Design of Human Fibroblast Growth Factor with Enhanced Stability," **Ali Haydar**, Becky Kerr, T.K.S. Kumar.

"The Structural and Functional Role of the Sole Tryptophan Residue in the Human Acidic Fibroblast Growth Factor," **Hannah M. Henson**, Anna E. Daily, Suresh Kumar.

"Synthesis of 15 Amino Acid Gtp-Ase Binding Region of Tuberos Sclerosis 2 to Study its Interaction with the Ras Gtp-Ase Rheb," **Sigrid L. Johannesen** and Paul D. Adams.

"Examining the Structural Stability of C2b Domain of Synaptotagmin B Using Multi-Dimensional NMR Spectroscopy," **Rhys Moore**, S. Jayanthi and T.K.S. Kumar.

"Purification and Characterization of Recombinant L23," **Mark W. Pickhardt**, Srinivas Jayanthi, T.K.S. Kumar.

"Design of a Duet Expression Vector to Characterize Ligand- Receptor Interactions," **Nicholas D. Tingquist**, Anna E. Daily, Alicia Kight, T.K.S. Kumar.

Derek Sears attended the Lunar and Planetary Science Conference in The Woodlands, Texas, March 1-8, and coauthored five papers presented.

"Classifying Chondrules Based on Cathodoluminescence Sears et al." Cristarela T. C. (REU), Sears D. W. G.

"Analysis of Visual Reflectance Spectra of "Hungaria" Family of Asteroids," Welivitiya W. D. D. P., Sears D. W. G.

"Near-IR Reflectance Spectral Properties and Metamorphic History of Unequilibrated (Type 3) Ordinary Chondrites," Sissay A. (REU), Ostrowski D., Gietzen K. M., Sears D. W. G.

"New Insight into the Fine Scale Properties of Antarctic Micrometeorites from Thermo-luminescence Analysis," Craig J. P., Sears D. W. G.

"Comparison of Spherules of Heated Phyllosilicate-Evaporite Mixtures to Spherules in CI and CR Chondrites," Ostrowski D. R., Sears D. W. G.

From the Library by Luti Salisbury

The University Libraries' Web site will be closed and offline Friday, March 18 at 5:30 p.m. to Wednesday, March 23 at 7 a.m. This closure is due to a power outage necessary to replace transformers and electrical breakers. This outage will affect interlibrary loan, the libraries' catalog, all research databases, digital collections, course reserves, and remote access.

The CHBC library will be opened during our scheduled hours on these days for study, browsing of the collections, and checkout of books, but access to the library Web sites will not be available.

We understand that many of our faculty, staff, and students use Spring Break to work on research and other projects, and we apologize for any adjustments you may have to make to your schedule.

- Make any pending interlibrary loan requests now.
- Pick up all interlibrary loan materials, or other needed items before Friday, March 18 at 5:30 p.m.
- Bookmark <http://uark.libguides.com>, where we will post temporary on-campus links.

Student News

Grad Students Pass Cumes



Amir Aliyan

Congratulations to the following graduate students who have now passed the appropriate number of cumulative exams to be considered doctoral candidates - **Amirhossein Aliyan** (Heyes lab), **Kolawole Ayinuola** (McIntosh lab), and **Juliette Rivero-Castro** (McIntosh lab).



Kola Ayinuola



Juliette Rivero-Castro

Success of a Student Athlete *continued*

Razorback sprinter and chemistry major **Benjamin Skidmore** finds success in the classroom in a discipline where 80% of undergraduates hold a 3.0 GPA or higher. He also succeeds on the track.

In March, the United States Track and Field and Cross Country Coaches Association (USTFCCCA) announced Skidmore as one of 18 to receive All-America honors. He has now collected 4 indoor All American accolades. He is also listed on the SEC Spring Academic Honor Roll.

The NCAA lists Skidmore number 6 among Division I

schools in the men's 400 meter. Skidmore completed a time of 46.04 in the SEC Indoor Track and Field Championships in February.

He is a member of the 4x400-meter relay team that captured the program's first-ever SEC indoor title in the event. The four-some clocked a time of 3:05.13 – this is the second fastest time in the world this year, an NCAA automatic qualifier, as well as the second-best time in school history.

Grad Students to Attend ACS

Graduate students **Jacqueline Greer** and **Scott Morris** will attend the 241st ACS National Meeting and Exposition in Anaheim, Calif. March 27-31.

Playing in the Band

The Razorback Marching Band was featured in the January/February 2011 edition of the prestigious college band magazine: *Halftime Magazine*.

Senior **Rhys Moore** and graduate student **Brett Spahn** are members of the band, which was featured in the Bowl-A-Rama segment after their performance at the 2011 All-State Sugar Bowl in New Orleans.

The band performed a shortened version of its traditional pregame show and halftime show featuring the music of Led Zeppelin.

Moore recently presented a poster at the BPS meeting and is in the Kumar lab. Spahn is in the Tian lab.



Rhys Moore

Home Notes

Alumnus and current instructor **Candace Z. Rainwater** and her husband Chase welcome the birth of their first child Sawyer Benjamin Rainwater, March 11. Baby



Sawyer Rainwater

Sawyer weighed 7 pounds and 11 ounces and was 21 inches long.

Jennifer Diaz Lemmons and her husband Michael welcomed the birth of their first child Elena, born Dec. 16, 2010. Baby Elena weighed 7 pounds, 11 ounces.



Elena Lemmons

The family lives in Lenore City, Tenn., where Jennifer works at Oak Ridge Y-12 doing NMR.

Safety Tip

Keep your solvents stored in flammable-solvent cabinets.

A fire will not spread without fuel.

Calendar of Events

March

- 01..... Application deadline for students who plan to graduate spring 2011
 01..... Deadline for all graduate students to submit a written research proposal to their committee
 03..... Early progress grades e-mailed to students in 1000 and 2000 level courses
 07..... No department seminar - Biophysical Society meeting
 11..... CUME
 14..... Department seminar
 21..... No department seminar - Spring Break
 21-24 Spring Break, no classes, university is open
 25..... University closed
 28..... No department seminar - ACS meeting

April

- 01..... CUME
 01..... Last day to drop a full semester class or classes with a mark of "W"
 04..... Department seminar
 04-15 Priority registration for summer and fall
 11..... Department seminar
 15..... CUME
 15..... Deadline for graduate students to orally defend proposal to committee
 15..... Last day to make up incomplete marks from previous semester
 18..... Department seminar
 21..... Department Honors Night
 25..... Department seminar

May

- 02..... Spring seminar series concludes
 05..... Last day of spring classes
 06..... Dead day, no classes
 07-13 Final exams
 14..... University commencement
 22..... REU/INBRE summer programs begin
 23..... First day of classes SSI
 23..... REU/INBRE Meet the Summer Students reception
 30..... Memorial Day, university closed

July

- 01..... Last day of classes SSI
 04..... Independence Day, university closed
 05..... First day of SSII classes
 28..... REU/INBRE poster session and luncheon

August

- 12..... Last day of classes SSII
 15..... New graduate students arrive on campus
 22..... First day fall 2011 semester

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

March Birthdays

- 03.....Jonathan Wilson
 09.....Colin Heyes
 10.....Art Fry
 10.....Cody Wright
 21.....Teresa Waddell
 24.....Matt McIntosh
 25.....Adam Kriedermacher
 30.....Chris Clanton
 31.....Juliette Rivero Castro

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>

Monday - Thursday ...8 a.m. to 9 p.m.
 Friday8 a.m. to 6 p.m.
 SaturdayCLOSED
 Sunday.....2 p.m. to 6 p.m.

See note inside about Spring Break

CUMES

Cumulative exams for graduate students will be given on the following Fridays in CHEM 144 at 5 p.m. to 6 p.m. April 1 and April 15

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.