Science Building Labs Renovated

Students enrolled in general chemistry lab classes now have crisp new spaces in which to conduct experiments.

What began in November is now nearly complete. Labs in the Science Building (SCIE) 316 and 317 were chosen as the prototypes for laboratory renovations on campus.

Both rooms were completely gutted. New cabinets and counter tops replace what was installed in 1968 when the building was constructed. Bins were added to the cabinetry for storage of backpacks. State-of-the-art hoods and benches were installed as well as energy efficient lighting. The only items that remain are the chalkboards. Even the stools were recycled with a fresh coat of paint. From the new dropped ceiling to the floors — the modern labs will be a joy to work in.

In addition, there was a significant amount of behind the scenes work, actually above the ceiling. Efficient fan coil units are now above the ceiling tiles and out of sight. The hood replacements included new air handlers on the roof.

This summer, SCIE 318 will be renovated to provide for more lab sections. Over the next few years the entire air handling system will be replaced and other labs renovated.

During the fall and spring semesters, approximately 1100 undergraduates attend chemistry lab courses each week.

When you get a chance, visit the labs and see student fees in action.

Above: A renovated lab. At left: A crane lifts air handlers to the roof of the Science Building. Note the scale. A man stands atop the building to guide the equipment.
Faculty News

Research News

A book in the Topics in Stereochemistry series Stereochemical Aspects of Organolithium Compounds by Bob Gawley was published in February.

On the Go

Peter Pulay was an invited speaker at the Molecular Theory for Real Systems meeting at Kyoto University, Jan. 7-9. Pulay and Tomasz Janowski presented a paper “Ultrafast QM/MM Simulation of Solvated Molecules.”

Julie Stenken presented “Building a Network of Networks for Academic Career Success,” at a local chapter meeting of Association of Women in Science, Feb. 3.

Graduate student Sasa Miladinovic presented a poster “Fragmentation of Polymers Using Quadrupole Collision-Induced Dissociation FTMS,” at the Lab Automation 2010 conference in Palm Springs, Calif., Jan. 23-27. He received a travel award from the Lab Automation Society to attend.

54th Annual Biophysical Society Meeting, February 19-24, San Francisco

Attending but not presenting are Dan Davis, Marilyn Davis, Roger Koepppe, Suresh Kumar, Frank Millett and graduate students Jeremy Dunchman, Brandon Suttle, Chris Rupar and Nicole Webb.

The following poster presentations will be made.

Lois M. Geren “Detection of A Proton-Dependent Electron Transfer from CUA to HEME A of Cytochrome C Oxidase Mutant S44E using Ruthenium Photoexcitation”

Denise V. Greathouse “Acylated Lactoferrin Peptides Using Solid State NMR and All-Atom Molecular Dynamics Simulations”

Post-doc Anna Daily “Defining the Interaction between S100A13 and Annexin II Peptide: Insight into Non-Classical Secretion”

Roger E. Koepppe is a coauthor on the following presentations being made by colleagues at Cornell University.

Ryan Thurman “Cation-Pi Interactions Contribute Significantly to the Stability of FGF and the FGFR”

Vitaly V. Vostrikov “Charged and Aromatic Anchoring Amino Acids Affect the Orientation of Transmembrane Peptides: A Deuterium NMR Study”

Posters by undergraduates

Andrew Avery “Effect of Osmolytes on Proteins”

Joshua D. Brown “Development of Bicelles Containing Anionic Lipids to Characterize Cationic Membrane Active Peptides by NMR Spectroscopy”

Geri E. Burkett “Binding of Antimicrobial Lactoferricin Peptides to Targets in the Angiogenesis Pathway”

Cory Garren “Understanding the Role of Ankyrin Domain of the 43-KDA Subunit of the Chloroplast Signal Recognition Particle in Protein Targeting”

Emily Erstine “The Monomerization of a Dimeric, Calcium-Binding Protein Involved in the Non-Classical Export of Fibroblast Growth Factor 1”

Katie Hamblin “A Biophysical Investigation of the Non-Classical Release Complex of Fibroblast Growth Factor-1”

Amen Ismail “Understanding the Effectiveness of Synthetic Crowding Agents”

Natalie White “Overexpression and Biophysical Characterization of Human Interleukin-1 Alpha”

Safety Tip

This is the aftermath of a fire that could have easily escalated out of control.

Please keep the number of containers that hold flammable liquids in your hood to a minimum.
This spring 18 freshmen were selected as HHMI Scholars to take part in the HHMI undergraduate research studio funded by the Howard Hughes Medical Institute (HHMI).

The two-year program offers an alternate educational experience for freshmen with continued funding through spring 2011. Participants receive a stipend, three hours of paid tuition, and housing for 10 weeks during the summer.

The mission of the Howard Hughes Medical Institute is to promote medical research by encouraging the best students to enter the field of medical research.

Above are the chemistry majors selected with hometowns listed. No photo for Brittany Touchstone, Pea Ridge or Nancy Vo, Fort Smith.

David Paul is the codirector of the HHMI Undergraduate Research Studio. Leslie Johnson provides staff support for the program.

The students with a variety of majors, will take part in one of three projects.

**Cell Signaling**
- Faculty – Suresh Kumar and David McNabb (BIOS)
- Researcher – Anna Daily
- Graduate student – Carmen Padilla (BIOS)
- Scholars – Arshan Dehbozorgi, Alex Jones, Gayatri Suresh Kumar, Rebekah Langston, Aswini Rajan and Daniel Tchakhalian

**Membrane Transport**
- Faculty – Ralph Henry (BIOS) and Greg Salamo (PHYS)
- Researcher – Daniel Fologea
- Graduate student – Roger Williams
- Scholars – Victoria Haines, Amir Mortazavi, Yui Okuyama, Andrew Price, Christine Stith and Brittany Touchstone

**Protein Dynamics**
- Faculty – Wes Stites and Lin Oliver (PHYS)
- Researchers – Jack Lay and Rohana Liyanage
- Graduate students – Chris Saunders and Titus Morris (PHYS)
- Scholars – Wesley Clawson, Sierra Haury, Rebecca Jeffers, Derek Pyland, Nancy Vo and Yeonhee You
Calendar of Events

February
05..................... CUME
08..................... Faculty candidate presentation
11..................... Faculty candidate presentation
15..................... Seminar - documentary film Naturally Obsessed: The Making of a Scientist
22..................... No seminar - Biophysical Society Meeting
24..................... Progress reports e-mailed for 1000 and 2000 level courses

March
01..................... Last day for graduate students to submit a research proposal
01..................... Department seminar
01..................... Faculty ARU’s are due to Leslie Johnson
05..................... CUME
08..................... Department seminar
15..................... Department seminar
19..................... Last day to drop a full semester course with a “W”
22-26.................. Spring Break
29..................... Department seminar

April
02..................... Special department seminar
05..................... Department seminar
05-16.................. Priority registration for summer and fall courses
09..................... CUME
12..................... Department seminar
15..................... Last day for graduate students to defend research proposal
19..................... Department seminar
22..................... Honors Night
23..................... CUME
26..................... Fry Lecture
29..................... Last day of classes
29..................... Last day to officially withdraw from all courses
30..................... Dead Day, no classes

May
1-7..................... Final exams
08..................... Commencement
17..................... First day summer I
31..................... Memorial Day holiday, university closed

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

February Birthdays
02.............. Suresh-Kumar
03........... Melissa Weston
06........... Ranjani Viswanatha
12.......... Markeeta LeRay
15.......... Barry Sharp
15.......... Stephen Gann
19.......... Mya Norman
25.......... Sasirekha Muruganantham
27.......... Christian Loeschel

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.
• February 5
• March 5
• 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
March 21 ............. CLOSED
March 22-25 .......... 8 a.m. to 5 p.m.
March 26-28 .......... CLOSED
May 9 ................. CLOSED

Save the Date
Fry Lecture
The 2010 Fry Lecture Series presents Dieter Seebach, Swiss Federal Institute of Technology, Zürich, Monday, April 26.
He will present “β-Peptides - from Organic Synthesis to Biomedical Aspects.”

Naturally Obsessed
A special screening of the one-hour documentary film Naturally Obsessed: The Making of a Scientist will take place Monday, Feb. 15. It is a true story about the struggle to become a scientist and the satisfactions of discovery. Monday, Feb. 15 at 7 p.m. (CHEM 132). Reception prior to the screening at 6:30 p.m. CHEM 105. Time subject to change.