

# SC Chemistry Department News Archive for 1999-2005

## **2005 Chemistry Department News**

### **2005 Commencement Highlights**

The chemistry department graduated five super students in 2005. The 2005 graduates, in alphabetical order, are: **Laura Ballou, Nathan Blue, Enitan Ibisani, Eric Lind, and Evan Pollock** . Eric is working in the pharmaceutical industry, Evan and Enitan are attending graduate school, while Laura and Nathan are pursuing the job market.

### **Another Strong Year for Science Enrollments**

For the third consecutive year there has been strong enrollment in science courses. The introductory biology course , Biology 111, has about 54 students this fall. General Chemistry 1 will be over 40 students again. Science majors make up about 20% of the student body at Southwestern, which indicates how strong the programs are.

### **New Gas Chromatograph System Installed**

The new EST 200 gas chromatography system was installed this summer and will be used this fall in organic chemistry. With the help of a generous gift from the Dow Chemical corporation, the chemistry department has completely overhauled its instrumentation since 2000. Within this time the department has added NMR and IR spectrometers in 2000 and an HPLC system in 2001. The chemistry faculty are confident they have the [best instrumentation](#) for students in the region.

### **Publication for Dr. Tessmer**

Associate Professor of Chemistry Michael Tessmer will have an article appearing in the October issue of *The Journal of College Science Teaching*. The article is based on a case-study for chemistry courses developed by Dr. Tessmer concerning research on the global transport of PCBs by salmon. The [case study](#) also appears in the online [case study collection](#) maintained by the State University of New York at Buffalo.

### **Summer Activities for Faculty**

Professor Terry A. Barnett spent his summer on some of his favorite subjects: teaching in New Mexico, birding in the Southwest, and visiting grandchildren. Michael Tessmer spent six weeks on the road with his wife and children. They visited many places including San Francisco, Boise, and Minnesota. He also completed work on his novel *Searching for Anabela* that should be in print sometime this fall.

## ***2004 Chemistry Department News***

### **2004 Commencement Highlights**

The chemistry department graduated four super students in May of 2004. The 2004 graduates, in alphabetical order, are: Patrick Arveson, April Cummins, Aron Fast, and Bradley Michel . Aron will be attending the Univ. of Kansas School of Medicine this coming fall, April will be attending Kansas State for veterinary medicine, and Brad and Patrick are pursuing the job market with eyes on graduate school.

### **Strong Science Enrollments Continue**

For the second consecutive year there has been excellent enrollment growth in science courses. The introductory biology course , Biology 111, has 64 students this fall. This is its highest enrollment in many years. General Chemistry 1 is the second highest in the past 10 years. Science majors make up about 25% of the student body at Southwestern, which indicates how strong the programs are.

### **Summer 2004 Internships**

Evan Pollock , a chemistry/physics double major from Hays, is at Montana State University this summer performing research on solar imaging. Biochemistry major Nathan Blue is having an interesting summer with an internship at Wyldewood Cellars winery in Mulvane, Kansas. The winery is famous for its elderberry wines. Eric Lind , a biochemistry major from Inman, is in Dallas this summer working with underprivileged youth. Early reports from Eric indicate it is going very well.

### **New Gas Chromatograph System to be Purchased**

Last fall the chemistry department's old GOW MAC gas chromatography separated its last sample and the search began for a new system. After looking at several systems the department has decided to purchase an EST 200 from EST Analytical Services. The faculty hope to have it in place for the fall term. Due to a gift from Dow Chemical in 1999, the chemistry department has completely overhauled its instrumentation since 2000. Within this time the department has added NMR and IR spectrometers in 2000 and an HPLC system in 2001. The chemistry faculty are confident they have the best instrumentation for students in the region.

### **Barnett Attends Pre-med Conference**

Chemistry professor Dr. Terry Barnett attended the national meeting of pre-med advisors in Washington, D.C. in early July. Terry reports gaining valuable insights on how to best prepare Southwestern students for the medical school admissions process.

## ***2003 SC Chemistry Department News***

### **May 2003 Commencement Highlights**

The chemistry department graduated six excellent students on May 10th of 2003. All six of the students were excellent role models for others and will be missed by the faculty. The 2003 graduates, in alphabetical order, are: Emily Bauer, Justin Dillner, Casey Dreitz, Brian Gragg, Carina McGowan, and Margo Straub. Emily and Casey will be attending the Univ. of Kansas School of Medicine this coming fall, Justin will be attending UMKC dental school, Brian is a chemist for the city of Winfield, and Margo and Carina are pursuing the job market. [Click here to see photos of the 2003 graduates.](#)

Emily Bauer and Casey Dreitz were also two of the three valedictorians for 2003. To top it off, Emily spoke at the commencement ceremony as the representative of the main campus students. (See photo below.)



### **Mastin Scholarship Winner**

The incoming Mastin scholar this year is Rachel Pollock from Hays, KS. Rachel is planning on majoring in biochemistry and pursuing a career in research. Rachel's brother, Evan Pollock, will be a junior double majoring in physics and chemistry this fall. The Mastin scholarship, the college's top science scholarship, is a 4-year renewable scholarship named in honor of Dr. Thomas Mastin.

### **Tessmer Wins Teaching Award**

Dr. Michael Tessmer has been awarded the 2002-3 Fasnacht Outstanding Faculty Award. The award is given annually to the faculty member who has contributed the most to the quality of the college. Dr. Terry Barnett, the other chemist at SC, is a past recipient of the award. Michael and Terry are also past recipients of the outstanding service to students award given annually by the student government association.

## Summer Internship Activities

Several SC chemistry students will be plying their trade at other institutions this summer. Eric Lind, a sophomore biochemistry major from Inman, KS, will be doing biochemical research at Texas A&M Univeristy. Pat Arveson, a junior biochemistry major from Chapman, KS, will be doing neurochemical research at the Univeristy of Kansas. Brad Michel, a junior biochemistry major from Liberal, KS, will be doing research this summer at Wichita State Univeristy. We wish all students well in this important step in their careers.

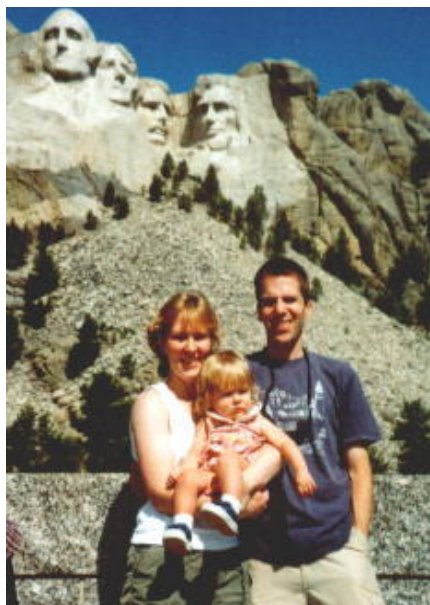
## Departmental Publication

Dr. Michael Tessmer was recently part of a publication from his work with colleagues at the University of Minnesota. The paper is titled: "Discrimination of C1:G72 MicrohelixAla by AlaRS is Based on Specific Atomic Groups Rather than Conformational Effects: An NMR and MD Analysis". The paper appears in the Journal of Physical Chemistry B, Volume 106, pp. 8878-8884, **2002**.

## August 2002

### Summer Activities

Terry Barnett was off to New Mexico to teach organic chemistry and Michael Tessmer went on a wonderful trip out west with his wife Joy and daughter Aideen. At age 1 Aideen has already been to 18 states. Some of the highlights were visiting Charles Hunter from the biology department while he was teaching at the Oregon Institute of Marine Biology and touring Ernest Hemingway's former home in Ketchum, Idaho.



### Field Station Improvements

The field station has undergone vast changes since last spring. The house was knocked down and burned in the spring and many trees around the homestead were cleared. A new main gate was added as well as a long fence that separates Dutch Creek from the upland prairie areas. Planet Earth students will be descending upon the station very soon.

### New Scientist Born in Illinois

Josh and Kellie Wheatley are the proud parents of a baby boy. Colton Wheatley was born on July 16th of this year and weighed 8 lbs. 3 oz. Parents and baby are doing super so far. Josh is a 2000 SC graduate in biochemistry currently working on his Ph.D. at the Univ. of Illinois. Kellie is an SC grad who is a physical therapist.

## **Mastin Scholarship Winner**

The incoming Mastin scholar this year is Jason Kearns from Parsons, KS. Jason is planning on majoring in biology and pursuing a career in medicine. The Mastin scholarship is a 4-year renewable scholarship named in honor of Dr. Thomas Mastin.

## **Mossman Renovation Completed**

The upper floors of Mossman Hall have been completely renovated and are now open for business. The former biology, chemistry, and physics labs will now serve as offices and classroom space for the business department and the social sciences. The basement area of Mossman will still be used primarily by the biology department for equipment storage and student lab space. Stop by the renovated Mossman if you get a chance.

## **October 2001**

### **Barnett off to Nobel Conference**

During the first week of October Dr. Terry Barnett and several students attended the 37th annual Nobel Conference at Gustavus Adolphus College in St. Peter, MN. Students attending this year were: Patrick Arveson, Aron Fast, Ali Wait, and Luke Vierthaler. All students indicated that the visit was enjoyable as the conference was interesting and the trees of the Minnesota River valley were in full color.

### **Summer Activities**

Terry Barnett was off to New Mexico to teach an MCAT course and Michael Tessmer made it all the way to the maternity ward of William Newton Hospital for the birth of his daughter Aideen. So far mom, dad, and baby are enjoying their time together.

### **2001 Grads**

Greg Bomhoff has entered graduate school at Kansas University to pursue a Ph.D. in biochemistry. Ashley Helfrich is working for Abbott Labs in McPherson, KS.

### **Field Station Open for Business**

The college has gained a new 240-acre biological field station located on Dutch Creek 12 miles north of Winfield. This fall students in Dr. Tessmer and Dr. Hunter's Planet Earth class are using the station for field lab projects. Students have been making chemical measurements on the water as well as taking biological surveys of the site. In the future, the field station will be available for students in all disciplines to utilize.

## **More Instrumentation Added**

In the fall semester of 2000 the chemistry department added a new Waters HPLC and Perkin-Elmer Infrared Spectrometer. This gives a total of three new major pieces of equipment in the last year. All of the instrumentation was purchased out of a generous gift from Dow Chemical. Michael Tessmer is teaching a new course in spectroscopy and Terry Barnett has the organic students on the IR spectrometer this spring to get the instruments into the curriculum.

## **Mastin Scholarship Winner**

Nathan Blue of Mulvane, KS was awarded the 2001 Thomas Mastin Scholarship. The scholarship provides a full tuition benefit for four years. Nathan is planning on majoring in biochemistry and working in biochemical research. The Mastin Scholar from 2000, Aron Fast, is also a biochemistry major. Other current Mastin Scholars on campus are: Greg Bomhoff (physics and biochemistry major), Beth Kramer (biology major), Kristen Kraemer (physics major), and Matt Douglass (physics major).

# September 2000

## **New NMR Seen on Campus**

A JEOL MY60 60 MHz permanent magnet nuclear magnetic resonance (NMR) spectrometer is now located in the Overstreet instrument room of Beech Hall. The funding for the machine came as part of a generous gift from the Dow Chemical corporation and SC graduate Etcyl Blair. The instrument will be utilized primarily in the organic chemistry series and a new course for Spring 2001 titled "Interpretation of Organic Spectra". The instrument will give students valuable experience in analyzing the structure of compounds and make abstract textbook material more attainable.

## **2000 Graduates**

Five students graduated with chemistry related degrees in the spring of 2000. The career paths of the five are similar to recent patterns. One will be attending medical school, three to graduate school, and one student is working for Grene Vision with plans on attending optometry school.

## **Summer Activities**

The chemistry faculty were off on more summer travels in 2000. Michael Tessmer and his wife Joy studied the flora, fauna, and surf while in Costa Rica and Peru. They also spent 5 weeks travelling the Eastern United States. Terry and Cheryl Barnett went to Morocco in late May and Terry spent five weeks in Las Cruces, New Mexico.

## **Mossman Chemicals Removed**

A small piece of history was removed in some ways when all of the old chemicals were removed from the Mossman Hall chemistry wing. Special thanks to Charlie Madden for helping organize the chemicals for their removal and to Dow Chemical Corporation for taking the chemicals. The college has a long term plan to renovate the former chemistry area for use by business and the social sciences.

## **May 2000**

### **Faculty Citation**

Assistant Professor of Chemistry Dr. Michael Tessmer has been awarded the 1999-2000 SGA (Student Government Association) faculty citation for outstanding teaching and service to students. Terry Barnett is a two-time winner of the award making this the third time in 12 years the award has gone to a chemistry faculty member.

### **Vulcan Chemical Tour**

As the final meeting for Chemistry 461 (Chemistry Seminar), Michael Tessmer and 3 graduating seniors, Matt Perdue, Josh Smith, and Josh Wheatley, toured the Vulcan Chemical Plant in Wichita. The plant produces chlorine gas, caustic soda, and hydrochloric acid from salt brine. The tour was sponsored by the American Chemical Society's Wichita Chapter.

## **December 1999**

### **Fall Conferences**

- Terry Barnett made his annual trip to Minnesota for the Nobel Conference at Gustavus Adolphus College in October. The topic of this year's conference was the Human Genome Project. Four students attended the conference with Dr. Barnett. They included Chad Killblane (biochemistry major), Jason Siemens (biochemistry major), Dustin Wilgers (biology major), and James Larson (biology major).
- Michael Tessmer attended a meeting of the National Science Teachers Association (NSTA) in Tulsa, OK in November. The main focus of the meeting was on getting students more involved in the learning process. Dr. Tessmer received many new ideas to try in the classroom this coming spring.

### **Departmental Publication**

- Dr. Michael Tessmer was recently part of a publication from his work at the University of Minnesota. The paper is titled: "Sequence Dependent Conformational Differences of Small RNAs Revealed by Native Gel



Electrophoresis." The paper appears in the journal Analytical Biochemistry (Volume 273, pp. 284-290).

## September 1999

### Summer Internship Reports

- Chad Killblane (biochemistry major) was awarded a Research Experiences for Undergraduate Fellowship sponsored by the National Science Foundation at the University of Nebraska-Lincoln. Chad worked on the optimization of a protein G column for use in a high performance amino-affinity chromatography system.
- Matt Perdue (biochemistry major) also was awarded a Research Experiences for Undergraduate Fellowship at the University of California-Santa Cruz. Matt's research project focused on the physical organic chemistry of transition metal using Fischer carbene complexes.
- Josh Smith (biochemistry major) worked with the Grene Vision Group in pursuit of a career in either optometry or ophthalmology.
- Greg Bomhoff (chemistry and physics major) spent the summer of 1999 working in an electrochemistry lab at the University of Kansas. Greg expects a publication with his name on it within the next few months.

### Dow Chemical Gifts

The chemistry department was recently notified that Dow Chemical Corporation has agreed to donate \$125,000 for new equipment over the next two years. The items should include a new NMR Spectrometer, HPLC system, UV-Vis Spectrophotometer, and several new balances. The equipment is part of a larger grant being by the Natural Science division. Thank you Dow!

### 1999 Graduates Move On

Bart O'Brien, a 1999 chemistry and physics graduate, has started his graduate school career in the Chemistry Department at Penn State University. Bart also spent the summer working doing research at Bayer in the Kansas City area.

Joel Smith, a 1999 biochemistry graduate, has started dental school at the University of Nebraska. Early reports from Joel are that it is difficult but going well. Joel says that he even utilized material from his biophysical chemistry course in the first week of dental school!



Kyle Woodrow, a 1999 biochemistry graduate, was recently on campus after taking a break from studies at Princeton Theological Seminary. Kyle is pursuing his Master's in Divinity at this time with the intention of getting his Ph.D.

### **Retired Chemistry Professor Passes Away**

Retired Southwestern College chemistry professor Dr. Orland Kolling passed away on Thursday, August 26th. Orland was active in research right up to the time of his death and had a paper accepted for publication in August of 1999.