

# Chemistry and Biochemistry Newsletter

For Alumni and Friends of the Chemistry and Biochemistry Department  
Fall 2007

## Message from Department Head

### Greetings Alum:

Wow. End of the Fall semester already. I think I have been lulled into feeling like the summer and fall will go on forever by the unseasonably warm weather. Here it is, December, and barely any snow. In fact, it has hardly gotten much below freezing. Another factor to throw us all off schedule was the delay in ending Daylight Saving Time this year. But reality is setting in, what with



final exams scheduled very shortly.

During the summer, the Department initiated a new program. Intech High School is a new school in Logan, an early college charter school, which concentrates on training students in the sciences and engineering. In order to provide some of these students a taste of college, as well as scientific research, we brought five such students over to our Department for a week. During this time, they were exposed to brief lectures by some of our faculty about their research, and

engaged in some research for themselves. They grew protein crystals, performed quantum calculations, and did some DNA sequencing, among other activities. The culmination of the week came when each student presented a brief summary of their research to faculty and students, as well as to their visiting family members. We are grateful to Lisa Berreau and Alvan Hengge for taking the lead on this project, which we intend to run again next summer.

This semester opened with a new Dean in place. Dr. Mary Hubbard joined USU from Kansas State University, where she had been serving in the capacity of Head of the Geology Department. We are all sanguine about the enthusiasm and energy that Dr. Hubbard brings to the Dean's Office, and anticipate a number of new initiatives. But rather than put my own words in her mouth, I will direct you to her brief column, elsewhere in this Newsletter.

And many of you will remember taking courses from Dr. Harris Van Orden. Harris has graciously agreed to write a brief reminiscence of his time here in the Department, and to bring you up to date with his life since retirement, which you will also find in this Newsletter. And speaking of retirements, although I had hoped to put off the inevitable, Steve Aust has let us know of his plans to retire this summer. Steve has been a prominent researcher on the national scene during his entire career, and has been a dedicated mentor to a long list of students and postdocs. He has won just about every award that this University makes available to faculty, as well as other awards at the state and national levels. His experience, acumen, and judgment will all be missed, as he and his wife Karen move on to the next phase of their lives together.

## inside:

Greetings from the Dean ....	3
Faculty News .....	3
Olsen Lecture .....	3
Alumni News .....	4
Obituary .....	4
Chem Club .....	4
Reminisce with Dr. Harris Van Orden.....	5
New Graduate Students .....	5
InTech High School Internship .....	6
Alumni Reply Form .....	7

Our new Biochemistry major has proven very popular indeed. At last count there were 80 students enrolled in this program. As the current instructor for the Biophysical Chemistry course that is part of the curriculum, I have been continuously impressed with the work ethic and dedication of these students. Many of them plan to go into medicine and other health professions, and will serve as examples of the quality of the training they receive here. Indeed, in an effort to continuously improve this program, we are now immersed in an effort to acquire a range of the modern equipment for their laboratory course, on which some hands-on experience will serve them well. We are grateful that our newest faculty member, Sean Johnson, has taken responsibility for the development of this course.

We were delighted to learn that the Department's proposal to the MRI program of NSF for a modernization of our electron paramagnetic resonance spectrometer was approved. PIs Lance Seefeldt, Lisa Berreau, Scott Ensign, and Steve Aust put together a strong proposal which was funded in the amount of \$173,445. The competition was particularly severe this cycle, with only 13 proposals funded from PhD granting institutions nationally, a success rate of 23%, in all fields, not just chemistry. This instrument will be a boon to not only the research programs of the four PIs, but will find an important place in our rapidly developing undergraduate laboratory course for biochemistry majors.

The Olsen Seminar series moved into its second phase this Fall. The second speaker in this series was Prof. Norm Dovichi, who visited us from University of Washington. His seminar described his efforts to apply modern methods of analytical chemistry to biochemistry, analyzing processes occurring in single cells. It represented a wonderful example of how various sorts of chemistry and biochemistry can be brought together in solving complex problems. Unfortunately, Richard and LaVina Olsen were unable to attend as they were ensconced in their new winter home in North Carolina. They were missed, and we are hoping they will be able to visit with us for next year's Olsen Seminar.

This Department, like many others around the country, is facing what is perhaps the most competitive situation for research grants that any of us have seen during our careers. The federal budget shortfalls have forced agencies like NSF and NIH to severely cut back on the number of grants they are able to award. As a result, renewal applications are facing very high bars indeed, even for projects that have progressed very well, and have met all their goals over the previous grant period. Faculty are forced to write one or even two amended applications before they receive the funding they need to continue their projects. We hope this stressful situation will abate sometime soon. But at least in the meantime, research is going full steam

ahead in the Department, and undergraduates continue to involve themselves in these nationally recognized projects.

And in that vein, I note that we are currently engaged in an intensive search for a new faculty member. We are hoping to lure someone here who can further connect the sometimes disparate fields of chemistry and biochemistry in both teaching and research, involving our students in efforts that train them in both disciplines.

It was gratifying to learn that Scott Ensign has accepted an invitation to join a Study Section at NIH, where he will bring his expertise to bear on evaluating proposals submitted by researchers throughout the nation. We were worried about Scott for a while, when he was having difficulties with his hearing. But surgery at the beginning of the Fall semester has brought his hearing back to a serviceable level, which was quite a relief to all of us. David Farrelly is abroad this year on sabbatical. He was awarded a visiting professorship from the Spanish Ministry of Science and Education, to study surface reactions, helium nanodroplets, and chaos theory.

On a recreational note, we were proud of Stephen Bialkowski's performance in the annual Lotoja bicycle race in September. This grueling 206-mile course is fraught with steep hills as the riders pedal their way from Logan to Jackson, WY. Stephen finished 18th in his class, completing the entire ride in under 12 hours, maintaining a pace of nearly 18 mph on average.

And lastly, it is with sorrow that we heard of the passing of Dr. Melvin Cannon this past May. Melvin had spent a long and productive academic career in this Department, and had served as its Chair for quite some time. He will not be forgotten.

And as 2007 rapidly approaches the end of its tenure, the entire Department joins me in wishing you and your family the best for the New Year.

With my most cordial regards,



## Upcoming Event

### HANSEN SYMPOSIUM

Invited Speaker

**Jane Richardson**

James B. Duke Professor of Biochemistry  
Duke University

April 2, 2008  
4:00 pm  
ESLC 046

# Greetings from the Dean



Greetings from the Dean's office. Let me introduce myself: I am Mary Hubbard, the new dean of the College of Science at Utah State. Last summer my family and I moved to Logan from Manhattan, Kansas where I had been the department head for geology at Kansas State University. My research interests have been based on the processes that lead to mountain formation. So, yes, I did have to travel away from Kansas for much of my research. I have conducted field projects in the Himalayas, the Alps, the Mauritainides of West Africa, the Southern Alps of New Zealand, the Appalachians, and the Rocky Mountains. Now it's time, however, to broaden my perspective and to focus on all of the science and mathematics disciplines in the College of Science at USU.

Since my arrival I have been very impressed with the quality of faculty and students at Utah State. There is excellence in the research that is underway in the Department of Chemistry and Biochemistry and it's a pleasure to see faculty sharing their work with graduate and undergraduate students. I have also enjoyed meeting a number of alumni from the department and it is clear to me that there has been excellence here for many years. My goal is to facilitate the sustainability of the superb teaching and research in the college and to foster new collaborations where beneficial to all. The college will also begin a focus on the needs of developing the pipeline of future scientists through combined efforts with the College of Education and Human Services. Science education is part of the national movement toward growth in the Science, Technology, Engineering, and Mathematics (STEM) fields. I look forward to meeting as many of you and I thank you for your past and future support of the Department of Chemistry and Biochemistry. Please stop by if you are on campus.

Mary Hubbard, PhD

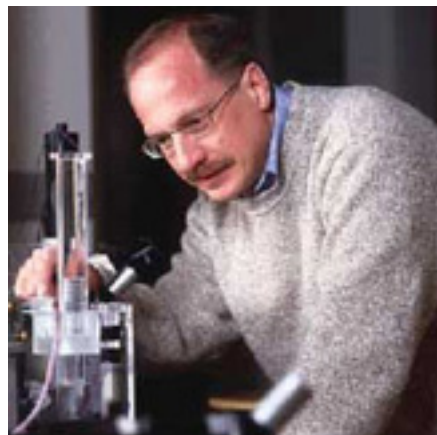
Additional note: My name is not to be confused with the Mary Hubbard who is married to Dr. John Hubbard, faculty member in Chemistry/Biochemistry. We do often get each other's email and we frequent a number of the same establishments in town!

# Faculty News

Professor Lance Seefeldt was honored as one of the 2007 Faculty Library Award Recipients. His lobbying has led to promised funding for critical electronic journals. His involvement has brought the Merrill-Cazier Library a giant step closer to meeting the demands of our research-driven faculty.



# Olsen Lecture



**Norman J. Dovichi**  
**Endowed Professor of Analytical Chemistry**  
**Department of Chemistry**  
**University of Washington**  
**Seattle, WA**

Dr. Dovichi presented a seminar titled: **"Chemical Cytometry – The Analysis of a Single Cell"** Professor Dovichi now serves as Associate Editor for *Analytical Chemistry*.



# Alumni News

**De Lamar Gibbons** (BS 56) went on to medical school at George Washington University, earning an MD in 1959. He practiced in Blanding, and served as Director of Clinical Research for the Saturday Evening Post.

**Joseph Maheras** (MS 65) is an Internist with St Vincent HealthCare, focusing on sleep medicine.

**Thomas Eccles** (BS 72, MS 74) went on to earn his PhD from Stanford in 1977. He is currently employed by Exxon in Houston

**Sven Berg** (BS 83) received an MD from Cornell University in 1987, and a MS in Public Health-Health Services Administration from the Uniformed Services University of the Health Sciences in 2003. Colonel Berg is Chief of the Medical Staff with the Air Force 59th Medical Operations Group.

**Alex Birch** (BS 03) has returned to Sirna Therapeutics (a subsidiary of Merck), as of July, 07.

## SHARE YOUR NEWS

Please pass along any news of yourself, both personal and professional, to be included in the next edition of the Newsletter. You can do so by filling in the attached form and put in the mail, e-mail to [scheiner@cc.usu.edu](mailto:scheiner@cc.usu.edu), or directly on the dept's website: <http://www.chem.usu.edu/alumni.php>.

# Chem Club



Sara Huefner, Jennifer Shuck, Rob Severinsen

<http://chem.usu.edu/undergraduates/chemclub/>

# Obituary



It was with sadness that the Department learned of the passing of Melvin C. Cannon on May 23 at the age of 93. Dr. Cannon was born in Salt Lake City and married Anne Holland in 1937. After graduating in 1933 from the University of Utah at age 19, he served a mission in the Brazilian section of the South American Mission, then returned to the University of Utah and received his MS in Chemistry in 1938, and

his PhD from Boston University in 1941. Dr. Cannon began his academic career at the University of Denver, then moved to Logan in 1947, joining the faculty of the Utah State University Chemistry Department. He was appointed as Chairman of the Chemistry Department in 1955, before retiring in 1979. Even in his later years, he was a frequent guest at the Department's annual Awards Ceremony. An active member of LDS Church, he was a High Priest and served as Bishop of the Logan 7th Ward for over three years, and as Bishopric counselor, High Priest Group Leader, and as Patriarch in the Mt. Logan Stake for many years. Dr. Cannon was preceded in death by his wife, and is survived by 4 children, 10 grandchildren, and 9 great-grandchildren.

## Alumni Link

<http://www.chem.usu.edu/alumni/>

- Newsletters
- Alumni Database Update
- Outstanding Alumni Award Nominations



Alma Jones and Richard Potter



Derek Price & Robert McMahon

# Reminisce with Dr. Harris Van Orden



I retired in 1984, but continued teaching for a couple of years before leaving University employment. My first action was to set up two scholarships (one for a student in chemistry and one for a student in food science and nutrition). After so many years of teaching I wanted to do something to thank the many students I

had the opportunity to meet and hopefully be of service to in their educational endeavors.

I graduated from Utah State in 1938 and worked as a teaching assistant in chemistry for two years before moving to Washington State University where I received my master's degree in chemistry in 1942. Immediately thereafter I began four years of service in the U.S. Army during World War II. While in the military, I spent a summer at M.I.T. and New York University teaching Air Force weather cadets about the possible effects of weather on chemical agents. That experience inspired my goal of graduate work at M.I.T., so after joining the faculty at USU in 1946 and teaching one year, I took a leave to attend M.I.T., receiving my Ph.D. in 1950. I returned to my faculty position at USU that same year.

Beginning with full retirement I volunteered in the community and for my church. For six years I served the local Red Cross chapter as a board member in charge of financial matters. During this time the chapter president and I were able to clear up a deficit owed the national office finally bringing the finances into compliance. I was named at one time a "volunteer of the month" for my work with the Red Cross. I also served as financial coordinator for the LDS Church's Deseret cheese plant for some six years. Again I found that due to the illness of the preceding coordinator, the financial matters were in disarray and I was able to clear up these items. I also served an 18-month service mission driving one day a week to the Church office building in Salt Lake City.

I engaged in other activities including travel, mountain hiking, golf, and teaching scripture classes at a retirement home in Logan.

I have a real love for Logan Canyon, going there many times to fish, camp, and hike the trails visiting Old Juniper, Tony Grove Lake, and other lakes in the area. One

hike I remember was a lone climb to the top of Mt. Naomi shortly after my 80th birthday. A climb I had made several times in the 1930s. Easy up, but very difficult for me coming down. I also had opportunities to visit the Wind River Mountains by horseback.

My wife and I traveled with the USU Emeriti group to places like Durango, Colorado, and Mesa Verde in Southern Utah, and several times attended the Shakespearean Festival in Cedar City. We also enjoyed a Caribbean cruise visiting Puerto Rico and many islands. I visited the United Kingdom, primarily London, and even did one trip into Yellowstone Park on snowmobiles.

Golf was a pleasant avocation for many years. I played primarily at the Logan Golf and Country Club, three or four times a week when in town, and won a Fourth of July tournament with three other retirees. As a member of a golfing group centered in Salt Lake City called HUG (Happy Utah Golfers), I had the opportunity to play a number of courses between St. George and Cache Valley. HUG played a different course each month during the golfing season.

I moved to Salt Lake City in 2003 when a heart problem required surgery. After that operation and another in 2005 for gall bladder removal, my health has been reasonably good, although I have given up golf and do not travel anymore. Currently, I am a caregiver for my wife and, of course, myself.

## New Graduate Students

Welcome to the new graduate students. Besides students from USU, others have joined our department from Kansas, Cameroon, Russia, Ukraine, and Vietnam. This spring Prof. Vernon Parker and Prof. Lance Seefeldt visited Nankai University in China and recruited a small group of students to study at USU.



Yuan Chu and Sanying Gui



Mark Haney

# InTech High School Internship

Five InTech Collegiate High School students participated in the Department's first-ever summer high school camp. A Thursday afternoon presentation to their parents illustrated what they picked up academically throughout the week (think quantum chemistry and electron density calculation processes). After his presentation, Braxton Shumway said the hydrogen balloon explosions were a high point of the week, but also added foosball games to his list. Ellie Edwards, whose project studied molecules in crystals, was thrilled for the opportunity. "I had a really great time and I think this is a great program," she said.



Hayden Griffiths, Ellie Edwards, Aaron Hooper, and Prof. Lance Seefeldt

Faculty wanted the soon-to-be high school juniors to have fun, but they also wanted to give the kids a glimpse into how life in the sciences could fit into their future. Getting really interested involves more than just reading from a book or watching other people conduct lab work. It's important for the high school students to be involved in a hands-on way, Alvan Hengge said: "That's what stimulates interest".



Camellia Williams, Ellie Edwards, and Prof. Lisa Berreau

InTech is a North Logan charter high school meant for teens especially interested in math, science and engineering. Its doors opened in fall 2006 to about 120 ninth- and 10th-graders and expanded to 11th grade this fall. The students there already have a close relationship to the Department, since many InTech students have made weekly field trips to USU's campus for science workshops.



Hayden Griffiths

About a year ago, the Department started talking about such a camp. "It took about a year for us to get this in place since we'd never done anything like this before," Hengge said. The five who attended this year had to apply to attend the camp. They were guided through the week by the department's faculty and undergraduate students who served as chaperones. The college students were also beneficial for the high school students, Prof. Lisa Berreau said, because they were able to talk about college life. Berreau hopes the teens also took away a knowledge of university life from an academic perspective, as well — learning about the daily life of a science professional and the teamwork and camaraderie involved at a university.

Griffiths, who wants to someday enter a scientific field, said he was grateful for even just the opportunity to work in a lab. "It's the actual experience, not just demos," he said of what he'll remember from the experience. "It's not the glamorized chemistry, it's just the true stuff."



Ellie Edwards

# Alumni Reply Form

Date: \_\_\_\_\_

Name: \_\_\_\_\_ Former Name: \_\_\_\_\_

Address: \_\_\_\_\_

Is this a new Address? YES \_\_\_\_ NO \_\_\_\_

Email Address: \_\_\_\_\_ Website: \_\_\_\_\_

USU degree(s), date, Research supervisor (if any): \_\_\_\_\_

**Please provide the following:**

Other institution(s), degree(s) and date(s): \_\_\_\_\_

Current employer: \_\_\_\_\_

Job title and description: \_\_\_\_\_

Areas of Interest and Current Projects: \_\_\_\_\_

**Do you have any news to share in the Alumni Newsletter?**

**Information of interest might include job descriptions, promotions, research, awards, publications, outside interests, and news of your family.**

**Mail, Fax or Email your completed Alumni Reply form to:**

**Steve Scheiner, Department Head  
Chemistry and Biochemistry  
Utah State University  
0300 Old Main Hill  
Logan, UT 84322-0300**

**Fax: 435-797-3390  
Email: [scheiner@cc.usu.edu](mailto:scheiner@cc.usu.edu)**

# UtahState

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