

JANUARY 2009



4th edition

CENTRAL WASHINGTON UNIVERSITY
DEPARTMENT OF CHEMISTRY

CHEMISTRY ALUMNI PERIODIC NEWS

From the Chair....

Dear Chemistry Alumni and Friends,

Greetings from Ellensburg!

This has been a year of change for the Department of Chemistry. Dr. David Lygre retired in June after teaching at CWU for 38 years (see top of p. 3). Dr. Todd Kroll, a researcher from the Salk Institute, was hired this winter and will join us in September as our new biochemistry faculty member. Three new full-time tenure track faculty members started in September (see p. 2).

Martha Kurtz, who many of you may remember as department chair, is now serving as department chair for the Department of Science Education. That's right! Science Education has become a full fledged academic department. We are happy to report that Martha Kurtz and Tim Sorey, the chemical education faculty, still have half-time appointments in Chemistry. JoAnn Peters started a four-year term as department chair in September.

While the current economic climate is presenting major challenges to all state-assisted institutions, the CWU Department of Chemistry remains cautiously optimistic. Our faculty, staff, and facilities remain strengths,

as do our dedicated and hardworking students (see Highlights, p. 3). Enrollment in our courses has never been higher (see table below). As always, we are grateful for your contributions to our efforts. More information can be found on p. 4.

Please keep us in mind if you are passing through Ellensburg. We look forward to visiting with alumni. University events and performances are found on the CWU website (www.cwu.edu). The annual Symposium on University Research and Creative Expression (SOURCE) showcases student and faculty achievements and is scheduled for May 21 in the new Student Union and Recreation Center (SURC).

Finally, we would love to hear about *you* (see p. 6). Drop us a line!

Best wishes,

JoAnn Peters
Chemistry Department Chair

Enrollment data

	1998	2008
gen chem enrollment	172	362
organic enrollment	89	149
biochem enrollment	40	74
bachelors graduates	8	22*
masters students	1	9
* 9 were ACS certified degrees		



CENTRAL WASHINGTON UNIVERSITY

Your future is Central.

Meet our newest faculty members

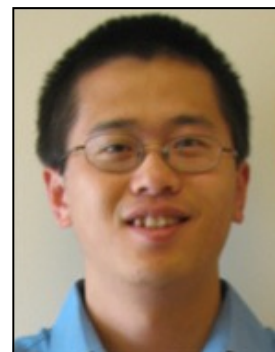
As a result of the high demand for our organic chemistry program, as well as the departure of Dr. Eric Bullock in 2007, the department was busy during the last academic year conducting interviews for three new faculty members. These folks joined our department as tenure-track assistant professors in the fall of 2008 and we'd like to introduce them to you.

Gil Belofsky (PhD, The University of Iowa, 1996) is a natural products chemist joining the organic chemistry team. His research includes the isolation and structural characterization of organic compounds from plants, as well as the medicinal and pharmacological applications of natural products. He has taught chemistry at the University of Tulsa in Oklahoma. He comes to CWU after helping to establish Efficas, a venture-capital-funded company focused on fatty acid-based formulations and plant extracts for health and the nutritional management of disease. His research lab at Central is already up and running and he will have four undergraduates working with him starting winter term 2009.



Stephen Chamberland (PhD, University of California, Irvine, 2005) is a synthetic chemist joining the organic chemistry team. His research involves natural product total synthesis and developing new methodology for organic synthesis. Steve comes to CWU after a post-doctoral research associate appointment at Colorado State University. His research lab at Central is already up and running and he had two undergraduates working with him fall term.

Yingbin Ge (PhD, University of Hawaii, 2004), a theoretical and computational chemist, has filled our vacant physical chemist position. He teaches the year-long physical chemistry sequence. His research is in the field of theoretical chemistry and the computational studies of nano-clusters, nano-scale catalysts, astrochemical species, and biochemical molecules. He is working with an undergraduate to get his research lab up and running. He left a post-doctoral research associate appointment at Iowa State University to come to Central.



Highlights from 2008

Tom Wickerath, class of 1982, is currently an employee at the Boeing Company. He worked with his employer to graciously donate a Leeman Labs PS 1000 ICP spectrometer to the CWU chemistry department when they upgraded to a newer model.

In April, **Dr. Aurora Clark**, class of 1999, offered the first Northwest Meeting in Materials and Physical Chemistry at Washington State University, where she has been an assistant professor for the past two years. Undergraduate and graduate students from the Peters, Rivera, and Diaz research groups attended and presented results of research conducted at CWU.

Patrick Jensen, class of 2004, invited the Chemistry Club (our student affiliate chapter of the American Chemical Society) to Hoppensteiner Incorporated in Yakima, Washington. On February 25, six undergraduate club members learned about the aromatic chemicals that are extracted from hops crops via carbon dioxide supercritical fluid extraction. Pat is currently the lab manager at Hoppensteiner and has worked in the hops industry since he graduated from CWU.

Highlights from 2008, cont.

On May 23, **Dr. David Lygre** presented a seminar on *Aging and Retirement*, which was followed by a retirement party in his honor in the foyer of the CWU Science Building. He taught in Central's chemistry department for 38 years, and the attendance at this event was a good indication of how many lives he touched during that time. Many current and former students were there, as well as many former colleagues including Dr. Clint Duncan, Dr. Walt Emken, past secretary Mrs. Pat Jackson, and former stockroom manager (and CWU alumna) Mrs. Maria Kramar. As a tribute to Dr. Lygre, the current faculty and staff dressed up (suits and ties or dresses) and he was toasted with Diet Coke (his favorite drink). Starting classes without Dr. Lygre on the teaching roster this past fall was different, but he stops by the building now and then to say hello, and can be found in his own private study carrel in the Brooks Library most weekdays.



Pictured left to right: (Top row) Anthony Diaz, Clint Duncan, Viorel Sarca, Bob Rittenhouse, Jozef Magonski (Second row) Steve Chamberland, David Lygre, Levente Fabry (Third row) Carin Thomas, JoAnn Peters, Don Davis, Tony Brown (Fourth row) Martha Kurtz, Mari Sorey, Cynthia Kuhlken, Walt Emken, Tim Sorey, Dion Rivera (Front) Lisa Stowe.

Grant Awards

The chemistry faculty maintain their outstanding level of scholarship by continuing to obtain external grant funding for their research projects. Examples of these achievements include:

- **Dion Rivera** had his proposal "In Situ Spectroscopic Studies of the Behavior of Polyelectrolyte/Surfactant Mixtures at the Water/TiO₂ Interface Using Attenuated Total Internal Reflection Fourier Transform Infrared Spectroscopy (ATR-FTIR) and Multivariate Least Squares Data Analysis" funded by the American Chemical Society Petroleum Research Fund (ACS-PRF) for \$65,000.
- **Anne Johansen** had her NSF proposal "RUI: Do DMS and Isoprene Control Iron Bioavailability in Marine Aerosols?" funded for a total of \$135,500 to support students and herself over the next two years.

The chemistry faculty also remain competitive for internal funding. CWU held a university-wide equipment grant competition through the combined funding commitment of the Provost and the

Office of Graduate Studies and Research. Chemistry recipients of the 2008 equipment grant awards included:

- **Anne Johansen**, Carey Gazis (Geology), and Kevin Nemeth (Continuing Education) funded for an ion chromatograph for water and wine testing.
- **Anthony Diaz**, **Anne Johansen**, Karl Lillquist (Geography), Patrick Lubinski (Anthropology), Lisa Ely, and Charlie Rubin (Geology) funded for a laser particle-size analyzer for environmental and chemical applications.
- **Tim Sorey and the chemistry department faculty** funded for general chemistry laboratory computer interface equipment.

National conferences

Several of the faculty and students presented results of research conducted at CWU at national conferences during the past year. Here is a sampling of those presentations:

- **Anne Johansen** and masters' alumna Lindsey Shank presented two posters at the American Geophysical Union Ocean Sciences meeting in

Orlando, Florida, in March. The work presented was from the Equatorial Pacific Ocean Cruise in 2006.

- **Dion Rivera** and science honors undergraduate alumnus Mike Hase co-presented a talk at Pittcon in New Orleans, Louisiana on March 3, 2008 entitled "Modeling Adsorption Behavior of Aqueous Polyelectrolytes/Surfactant Mixtures to TiO₂ Surfaces using ATR-FTIR."
- On April 9, 2008 **Carin Thomas** presented a paper at the Federation of American Societies for Experimental Biology (FASEB) International annual meeting. The paper was titled "Inhibition of Mitochondrial Electron Transport by Atmospheric Ultrafine Particles: Ferrous Iron, Quinones and ROS Production" by authors Carin Thomas, graduate student Justin Johnston, undergraduate alumna Stephanie Bryner, Anne Johansen, former CWU faculty member Eric Bullock, and Mark Engelhard of the Environmental Molecular Sciences Lab at Pacific Northwest National Laboratory (PNNL).

~ More highlights on page 4 ~

Highlights from 2008, cont.

National recognition

The chemistry faculty continue to be involved in chemistry at the national level. In 2008, several were asked to review research grant proposals for large granting agencies such as the National Institutes of Health (NIH; Anne Johansen), the National Science Foundation (NSF; Levente Fabry, Anne Johansen and Carin Thomas), and the American Chemical Society's Petroleum Research Fund (ACS-PRF; Dion Rivera).

Publications

The current faculty have had a successful year with publications. Here is a sampling of those successes:

- **Anthony Diaz** had accepted in the *Journal of Luminescence* the paper titled "Investigation of Host-to Activator Energy Transfer and Surface Losses in $\text{SrY}_2\text{O}_4:\text{Eu}^{3+}$ under VUV Excitation." The authors were Anthony Diaz and science honors alumnus Ryan Atkins.

- **Levente Fabry** had an article accepted to *Bioorganic & Medicinal Chemistry* titled "A Genetic Algorithm Optimized Fuzzy Neural Network Analysis of the Affinity of Inhibitors for HIV-1 Protease." Authors include Levente Fabry-Aasztalos, Razvan Andonie (computer science faculty), chemistry masters' alumna Catharine Collar, computer science graduate student Sarah Abdul-Wahid, and chemistry undergraduate alumnus Nicholas Salim.
- **Anne Johansen** had a publication accepted into *Environmental Science Technology* called "Photochemistry of Iron in Simulated Crustal Aerosols with Dimethyl Sulfide Oxidation Products." Authors include masters' alumna Jennifer Key, chemistry minor alumna Nicole Paulk, and Anne Johansen.

SOURCE

Every chemistry research group was well represented at the annual Symposium on Undergraduate

Research and Creative Expression (SOURCE) held in May, and many of the groups came away with awards:

- **Christopher "Badi" Abdul Wahid**, senior major, **Grant Barker**, graduate student, and **Amanda Blackmore**, class of 2008, took oral presentation awards for research conducted with Levente Fabry.
- **Kelley Brown**, **Paul Charlton**, undeclared undergraduates, and **Casey Kellar**, senior minor, received an award for their poster based on research conducted with visiting professor Viorel Sarca.
- **Caitlyn Cornell**, 2008 MS alumna, took an award for her oral presentation in the education session. Her thesis committee chair was Martha Kurtz.
- **Katie Warren**, class of 2008, was recognized in for her oral presentation on research conducted with Anthony Diaz.

Giving

CENTRAL WASHINGTON UNIVERSITY
**DEPARTMENT OF
CHEMISTRY**

400 East University Way
Ellensburg WA 98926-7508

Foundation phone (toll-free)
800-752-4378

We're on the Web!
www.cwu.edu/~chem

Central Washington University is an
AA/EEO/Title IX Institution.

The CWU Department of Chemistry has two foundation accounts to assist with a variety of activities:

Chemistry General Fund This fund is designed to enhance student experiences at CWU including but not limited to a student appreciation BBQ and special events. Please write "account 10448" on the subject line of the check to donate funds for this purpose.

Chemistry Scholarships This fund is specifically for chemistry students. We currently use it to recognize graduating seniors who have given outstanding service to our department. Please write "account 10451" on the subject line of the check.

All contributions to CWU are tax deductible. Checks should be written to CWU Foundation-Chemistry. Unrestricted donations to the CWU Foundation are also gratefully accepted (do not include chemistry on "pay to the order of" line).

The CWU Foundation is currently registered with the state of Washington Secretary of State under the charitable solicitation act, registration number CEW-A88-085. For information, call the Secretary of State at 1-800-322-4483.

Alumni Updates

Dr. David Bolstad, class of 2001, received his PhD from the University of Montana in 2006. He then took a postdoctoral position at the School of Pharmacy at the University of Connecticut for two years before he was hired as an assistant professor in the Department of Chemistry at the University of Montana in August 2008. He and his wife Erin Davis Bolstad, class of 2001, had their first child, Evelyn Cerana, in April 2008.

Dr. Hyrum Bronson, class of 2003, graduated from Edward Via Virginia College of Osteopathic Medicine in June. He started his family practice residency at Elgin Air Force Base on the panhandle of Florida.

Ryan Davis, class of 2007, is currently pursuing his doctorate degree in chemistry at the University of California Santa Barbara. He was recently awarded the competitive IGERT Fellowship which is supported by the National Science Foundation.

Dr. Cynthia Douglas, class of 1974, is an MD practicing anatomic and clinical pathology with sub-specialty boards in cytopathology in California. She is a fourth partner in a group of eleven doctors. She also directs a hospital laboratory and loves her job.

Dr. Bill Gurrad, class of 1972, has his own dental practice in Kirkland, Washington. He remembered that Dr. Lygre played on an intramural baseball team in the spring of 1972 with the students, giving them a real sense of connection to this “new” professor.

Craig Gyselinck, class of 2008, is employed at Cascade Analytical in Wenatchee as an analytical chemist. Craig graduated with an ACS certified degree in chemistry and conducted research with Dion Rivera.

Dr. Ben Howie, class of 2004, graduated from Loma Linda University School of Medicine in May.

In June he began residency training in family medicine at the Naval Hospital at Camp Pendleton in Oceanside, California where he'll spend the next three years. Ben became a certified Wilderness First Responder after finishing a month-long elective in Wilderness Medicine near the Great Smokey Mountains National Park in Tennessee this past spring.

Travis Lamberte, class of 2007, is working as the Assistant Manager of a company called North Star Casteel. They make castings of up to 3,000 pounds for use as track work in the railroad industry, smaller castings for tractor trailer hitches, and other castings for a host of other industries. He has taken up fishing as a hobby and is pictured here with one of his “trophies”.



Dr. Tyson Miller, BS class of 1995 and MS class of 1999, is teaching at the University of Connecticut as an assistant professor of chemistry. He has a research group of three PhD graduate students, two undergraduate researchers, and a post-doc-like collaborator. He and his wife Margaret had their first child, David Stanley Miller, on May 9, 2007. Tyson visited CWU in the spring of 2008 and presented a research seminar to the department.

Tom Oates, class of 2005, has been working as an analyst at Southwest Research Institute (SWRI) since he graduated from Central. Just this fall he left SWRI to attend the University of Washington in pursuit of his PhD in analytical chemistry.

David Schauf, class of 1973, is currently the executive director of quality assurance at Illes Seasonings and Flavors in Carrollton, Texas. David remembers when Dr. Lygre was known not as the department historian, but as the rookie professor among veteran professors such as Drs. Newschwander, Meany, Emken, Duncan, and Habib. He was here when Dean Hall was the “new” science building, and thought it was great to shoot water balloons from the top of Dean Hall over to the Barto Hall dorm using latex tubing to make large slingshots.

Matthew Schmitt, class of 2005, is teaching chemistry in the Glendale Union High School District in Phoenix, Arizona. He is also coaching cross country and track.

Lindsey Shank, BS class of 2005 and MS class of 2008, who conducted research with Anne Johansen, is pursuing her PhD in atmosphere-ocean systems, with a focus on the marine atmosphere, in the Department of Oceanography at the University of Hawaii.

WE WANT TO HEAR FROM YOU!

Do you like reading updates from other alumni? You could be featured on this page in the next edition!

There are a couple of ways to submit updates for the newsletter: Complete the back page of this newsletter and mail it to CWU —OR— send that same information via e-mail to chemistry@cwu.edu any time during the year.

What about you?

We want to hear from and about you!

*Please fill out this form and mail it to Central Washington University, Department of Chemistry ,
400 East University Way, Ellensburg WA 98926-7539 or e-mail chemistry@cwu.edu*

Name: _____ Maiden/Former Name: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Home Phone: _____ E-mail: _____

Current Employer: _____ Job Title: _____

Year Graduated: _____

News and Comments: _____

Stay involved with the CWU Chemistry Department!

I'm interested in visiting CWU to (check all that apply):

Present a seminar

Give career advice to students

Other suggestions: _____

**We appreciate all the ways you continue to
support us and want to keep in touch with you!**
