

## Message from the Editor

Joe Langenhan



As editor of *The Spectrum*, it is my privilege each summer to reflect upon the past year and to share with you the latest Chemistry Department news as well as the tremendous accomplishments of our students, faculty, and alumni. It is never hard to identify enough content to fill the pages of *The Spectrum*, and this year is no exception. Our newly renovated facilities are enhancing the

quality of our students' learning experiences and are enabling our students to perform state-of-the-art research. Our students continue to perform beyond our standards, winning University awards and national accolades. Our faculty are gaining increasing recognition as national leaders in undergraduate education and research. And you, our alumni, continue to fill us with pride as you excel in graduate school, in professional programs, and in the workplace.

Last fall, we moved into our newly remodeled facilities which include new organic, biochemistry, physical, and analytical chemistry laboratories, a new instrument room, a new



Kim Woo ('08), Christine Cachola ('08), and Matt Ryskalczyk ('09) work in Prof. Doug Latch's instrumental analysis course.

### Inside this Issue:

Departmental News	1-3
Faculty & Staff News	4-8
Student News	9-10
Alumni Notes	11

stockroom, a room to house our new 400 MHz NMR spectrometer, and modern research labs for collaborative student-faculty research. These spacious, modern facilities have allowed us to continue to evolve our curriculum to provide high quality laboratory experiences that prepare our students for professional life.

I am continually impressed by what our students achieve while at Seattle University. During the 2007-2008 academic year, eight Chemistry Department majors were named Bannan Scholars, a College of Science and Engineering honor given to recognize academic achievement and commitment to service. Nathan Furukawa ('08) was one of two recipients of the University's Mission Award for outstanding leadership in academic excellence. We also learned this year that our ACS Student Affiliates Chapter was nationally recognized through an Honorable Mention Chapter Award from the American Chemical Society. You can find more about student accomplishments on pp. 9-10 of *The Spectrum*.

The faculty are doing their best to keep up with our fantastic students! Professors Jenny Loertscher and Vicky Minderhout are gaining national acclaim for their National Science Foundation-supported project to advance active learning approaches in biochemistry courses. Four faculty members were awarded a total of \$ 123,136 from private and public foundations to support pedagogical reforms and undergraduate research. We've published papers with student co-authors, we've filed patents on research findings, and we've worked on social justice projects in third-world countries. I can't wait to see what we accomplish this year!

Our Department's growing national reputation is thanks to the achievements of you, our alumni. I've only worked at Seattle University for three years, but I often hear from professors and colleagues throughout the country who have worked with Seattle University Chemistry Department graduates—they invariably are impressed and want to recruit more! In fact, during the 2007-2008 academic year alone, we hosted six speakers from other institutions, most of whom came to Seattle University to recruit our students.

We've heard in past years from many of you, but we haven't heard from some of you in a long time. Please feel free to visit our department, and please drop me a line at [langenja@seattleu.edu](mailto:langenja@seattleu.edu) so I can share with our faculty and our community what you have been up to in recent years.

On behalf of our entire department, I wish you the best in the coming year.

Joseph M. Langenhan  
Assistant Professor of Chemistry

---

## More Headlines

---

### Kasia Pietrzyk Wins Staff Award



Kasia Pietrzyk, chemistry laboratory supervisor, was this year's recipient of the SU Staff Leadership Award. This award was established to recognize an outstanding exempt-level staff member and was presented at the Staff Appreciation Party on May 30.

"Kasia has distinguished herself in her 20 years at SU through her commitment to our University. She's a cornerstone in our department in terms of embodying dedication and for performing well beyond the call of duty countless times," Professor Langenhan says. "Kasia has displayed tremendous leadership in making our department a safer, more professional workplace. She successfully advocated for the formation of a departmental safety committee. Kasia is the driving force behind our committee—I rely heavily upon her for leadership and inspiration."

At many universities, Kasia's safety related duties constitute a full-time job, but Kasia is responsible for much more than chemical safety. She organizes hundreds of students as they check into general chemistry and organic chemistry courses—a very stressful task that she handles with grace. Kasia is also responsible for preparing all general and organic chemistry labs as well as for ordering chemicals and supplies.

Kasia played an enormous role in two remodels, one in 1989 and most recently in the summer of 2007. For the later remodel, Kasia coordinated the move of all the materials out of our stockroom, every lab drawer, and every lab cabinet—thousands of square feet of space and hundreds of hours, a vast undertaking. After the remodeling was complete, she was responsible for restocking everything in all of these spaces. Professor Alaimo remembers how hectic the move was. "Since the remodeling was not finished on time, the chemistry faculty and staff were not allowed back into their labs as soon as was originally planned. Therefore we all had to scramble a bit at the beginning of the quarter. Through all of this time, Kasia remained calm, organized, and professional; she was a source of stability for our entire department at a time of great anxiety and uncertainty."

In her role as the manager of our chemical stockroom, Kasia supervises several stockroom work/study student employees. Students who work in the stockroom are almost invariably transformed by Kasia's example. Many of Kasia's work/study students have gone on to become mentors to elementary school children at TT Minor Elementary, and have become heavily involved in research in the chemistry department or in the surrounding community. "As faculty, we have great confidence when we invite Kasia's former work/study students into our research labs—her inspiring example transforms students in a remarkable way. She is also a great inspiration to female students in our department. Simply put, she is a very strong, knowledgeable, and experienced female figure that does a very complicated job extremely well and efficiently," say Prof. Loertscher.

Join us in congratulating Kasia on her award!!

### Professors Land Prestigious Grants

This year four chemistry department faculty were awarded prestigious grants from private and public foundations to support collaborative student-faculty research. Two faculty, Assistant Professors Latch and Alaimo, received Cottrell College Science Awards from the Research Corporation. Latch received \$ 43,218 to investigate the fate and transformation mechanisms of endocrine disrupting pollutants. Alaimo received \$ 43,218 to work toward enhancing diversity and improving stereoselectivity in the three-component synthesis of dihydropyridin-4-ones. Professor Emeritus John Meany was the recipient of a \$ 20,000 Senior Scientist Mentor Award from the Camille and Henry Dreyfus Foundation. Prof. Meany will investigate the reversible hydration of fluoropyruvic acid and fluoropyruvate. Prof. Sue Jackels received a total of \$ 16,700 from the Winds of Peace Foundation and Tetra Tech, Inc. to support her coffee quality improvement research.

### Langenhan Patents Cancer Drugs

Assistant Professor Joe Langenhan recently developed promising new cancer drug candidates in his lab at SU, including one molecule with potent activity against drug-resistant ovarian cancer cells. SU filed a patent on these molecules and the chemistry used to create them. The provisional patent has already been licensed to Centrose, a biopharmaceutical company located in Madison, WI, marking the first time a SU patent has been licensed for development. Centrose is interested in developing the candidates into clinical drugs.

The drug candidates were created using a reaction called "oxamine glycosylation," which was developed with the help of Seattle University undergraduates. Prof. Langenhan is delighted by the results and the role his team of undergraduates played in the studies. "This project is a fantastic example of how fairly fundamental research in organic chemistry can quickly have significant potential to help people who suffer from disease. My undergraduate co-workers are fantastic—they have blazed the trail to get us to where we are today, and our journey is just getting started."



The Langenhan Research Group in 2007-2008.

---

## More Headlines

---

### Jackels' Team Builds a 'Beneficio'

For five years, Professor Sue Jackels and her husband have returned periodically to Nicaragua, working with farmers participating in an effort of Catholic Relief Services (CRS) to gain access for the farmers to the Fair Trade and Organic specialty coffee market. The Jackels' noticed that the especially poor communities were disadvantaged by not having adequate coffee processing equipment with consequences in the coffee quality and harm to the environment.



Processing coffee from raw fruit into dry beans ready for sale requires several steps: picking the ripe cherries, separating bad fruit from good fruit, de-pulping the fruit, fermentation, rinsing of mucilage from the beans, and drying. After drying, the papery white husk is removed before the green coffee is shipped. The infrastructure required for these steps is contained in a 'beneficio.' The wastewater generated from the beneficio must be treated to maintain local river water quality.

In this year's project the Jackels teamed with the Civil and Environmental Engineering Department to sponsor a S&E Project Center team to design a beneficio for the community at La Suana, Nicaragua. After a brief visit to the site in August of 2007, supported by the SU chapter of Engineers Without Borders, a proposal made to the Project Center and the Seattle environmental engineering consulting firm, Tetra Tech, was accepted. A team composed of Professor Mike Marsolek (C&EE), Professor Sue Jackels, project engineering advisor Grizelda Sarria (Tetra Tech) and students Joshua Alcantara, Patrick Cummings, Luis Quintero and Michael Wynne visited Nicaragua in December 2007 to meet the community at La Suana and to survey the site for the proposed beneficio.

The team designed, sized, and constructed the plans of the beneficio process and corresponding wastewater treatment for the beneficio. The chosen design incorporated the latest ecological model of coffee processing together with three alternatives for appropriate wastewater treatment. The designs were transmitted to an organization which decided with the local farmers at La Suana on the plan of implementation. A contract was made with a Nicaraguan contractor for construction (supported with funds donated by Tetra Tech). The picture above shows the beneficio under construction in May 2008. The team hopes to send several members back to Nicaragua in December 2008 to assess the new beneficio while operating during the harvest and collect samples for performance analysis, particularly in regards to effluent wastewater quality and environmental sustainability.

### New Laboratory Manager Hired

We are happy to expand our staff crew by one new member: Kristina Smith. Kristina was hired July 1st as a new Laboratory Manager. Smith is a Seattle University alumnus who graduated with a General Science degree in Spring 2006. She is currently working on her second bachelor's degree in biology and has returned to the research lab to continue on an ethnobotany project under the direction of Prof. Jen Sorensen.



### Biochemistry Grant Work Begins

Assistant Professor Jenny Loertscher and Professor Vicky Minderhout began work on their National Science Foundation-funded grant to advance active learning in biochemistry nationally. Starting this past January, three faculty members teaching one semester biochemistry courses volunteered to join the team and test the materials created at Seattle University. Following their input, a pre-market edition of the materials that consists of 36 classroom activities was published in July 2008. An additional eight faculty members will test the materials this academic year using the pre-market edition of the Loertscher/Minderhout workbook. The book was available at the recent Biennial Conference on Chemical Education (BCCE) at the University of Indiana and many faculty members expressed interest in testing for 2009-2010.

A component of the grant is to create a community of biochemists interested in student-centered learning in their classrooms. To further that goal, Loertscher and Minderhout hosted a group of thirteen faculty members for a four day workshop in Seattle. These faculty form a group of core collaborators who will extend the current materials by developing additional classroom activities. A wider group of biochemists will participate in a similar workshop in summer 2009.

## Faculty and Staff News

### Peter J. (PJ) Alaimo, Assistant Professor, 2004-present

I had another great year teaching organic chemistry with Prof. Langenhan. At the beginning of this school year, we moved back into Bannan to dramatically renovated and expanded organic chemistry teaching labs, and to our new 400 MHz NMR spectrometer. These two enormous changes have truly revolutionized the lab curriculum. Dr. Langenhan and I have continued to incorporate new investigative experiments and to develop our professional writing program in the lab. We presented our writing program at two exciting conferences: the 2008 National Carnegie Academy for the Scholarship of Teaching and Learning Institute and the Ninth Biennial 2008 International Writing Across the Curriculum Conference. These presentations were generously supported by the SU Provost's Office and the Dean of the College of Science and Engineering, respectively. Our collaborator, Dr. Loertscher, is presenting some of this work at the upcoming 21st Biennial Conference on Chemical Education.

Our chemistry research is also moving forward at a steady pace in our beautifully renovated research labs. Over the past few years, my group developed an aza-Diels-Alder reaction between imines and Danishefsky's diene that provides access to some interesting N-heterocycles. I presented that work earlier this year at Sonoma State University. This summer our research continues with the help of three summer research students: Amanda Marshall ('08), Colleen Ottinger ('08), and Corey Paulino ('08). We are now focused on developing an enantioselective variant of the aza-Diels-Alder reaction. To support this research I was recently awarded a new Cottrell College Science Award from the Research Corporation, which supports students during their summer research efforts. Our work was also generously supported by an SU Summer Faculty Fellowship Award.

### Susan Jackels, Professor, 1995-present

During 2007 - 2008, Sue taught general chemistry, advanced inorganic chemistry, and a core lab science course for non-science majors, Chemistry, Food and Nutrition. It was a real pleasure to use the new lecture-lab teaching space to teach with activities that included lab activities interspersed with discussion. In research on the coffee project there were projects finished (Britt Edquist and Tam Pham, both '08, finished the analysis of bio-acids in fermenting coffee), projects continued (Sue with the Winds of Peace Foundation [www.peacewinds.org](http://www.peacewinds.org)) for workshops with the coffee fermentation kit and 85 new leadership farms in the northern regions of Nicaragua, and two new projects initiated. Jody Cook, '08, started a project on the analysis of coffee aroma molecules in ground roasted coffee using gas chromatography and Sue and Chuck teamed up with environmental engineers, Mike Marsolek and Grizelda Sarria of Tetra Tech, to sponsor a team of students that designed a coffee processing mill (beneficio) with wastewater treatment (see story on pg. 3 of *The Spectrum*). Sue gave many presentations this year on the coffee project, including at the New Student Convocation, a plenary at a conference on Food Safety Issues, to the CRS Fair Trade Ambassadors group, to the Kennedy High School students enrolled in CHEM 121/131, at the 236th National Meeting of the American Chemical Society and at the national meeting of the Council on Undergraduate Research.

### Douglas Latch, Assistant Professor, 2007-present

Doug just completed his first full year at SU, teaching quantitative analysis, instrumental analysis, and a section of general chemistry lab. Doug also co-taught senior synthesis and forensic science lab. After co-teaching quantitative analysis for the first time in the fall, Doug spent a great deal of time updating and replacing all of the material for the self-paced portion of the course when he taught it in the winter quarter. Doug also developed new materials for the interdisciplinary forensic science lab that focused primarily on chemistry and its applications in forensic science. He also worked hard to update lab experiments in both the instrumental analysis and general chemistry lab (132) courses. During the summer, Doug and Joe Langenhan teamed up to give lectures to groups of incoming first-year students on the science of explosives and incendiaries as part of the Summer in Seattle orientation program. Doug also had the pleasure of working with SU students Kelly Daumit, Laura Poellet, Jun Wen Zhong, Stacy Ordonio, and Peter Moore as

## Current Faculty & Staff

### Tenure-Track Faculty



Peter J. Alaimo  
Ph.D., U.C. Berkeley  
Organic



Susan Jackels  
Ph.D., Univ. of Washington  
Inorganic



Douglas Latch  
Ph.D., Univ. of Minnesota  
Analytical



Joseph Langenhan  
Ph.D., Univ. of Wisconsin  
Organic



Jennifer Loertscher  
Ph.D., Univ. of Wisconsin  
Biochemistry



Ryan McLaughlin  
Ph.D., U.C. Berkeley  
Physical



John Meany  
Ph.D., Univ. of Washington  
Organic



Vicky Minderhout  
Ph.D., Northwestern Univ.  
Biochemistry



Kristen Skogerboe  
Ph.D., Iowa State Univ.  
Analytical



David Thorsell  
Ph.D., The Ohio State Univ.  
Physical

## Faculty and Staff News

(continued from pg. 3)

they guided a group of middle school girls through a three-day workshop on DNA fingerprinting as a part of last summer's Science Splash program.

The Latch research group has made significant progress since moving into their newly renovated research lab. The group is currently studying the fate of endocrine disruptors in natural waters, focusing on how sunlight is involved in their degradation. Working in a temporary laboratory during the renovation of Bannan, Lindsay Fay ('08) and Courtney Goodwin ('08) spent last summer developing strategies to measure aquatic photochemical kinetics and to elucidate photolysis pathways. Courtney was joined by Kelly Daumit ('09) during the academic year, and together they worked to optimize the analytical procedures used to quantify the suite of eighteen endocrine disruptors being studied. Kelly continued her research in the summer, where she made great strides in assessing the photochemical rates and pathways involved in the degradation of these environmentally important substrates. Lindsay presented her summer work as a poster at the Murdock Charitable Trust Regional Conference on Undergraduate Research. As a testament to the amount of work the students accomplished, Doug was able to present the group's research at the prestigious Gordon Research Conference on Environmental Sciences: Water in Holderness, NH and was awarded a grant (\$43,218) from the Research Corporation to further support this work.

### Joseph M. Langenhan, Assistant Professor, 2005-present

Joe Langenhan is about to begin his fourth year at Seattle University, and continues having a great time teaching organic courses and doing research with undergraduates. With the help of PJ Alaimo, Jenny Loertscher, Ryan McLaughlin, and English Professors John Bean and Larry Nichols, Joe is working hard to design and implement a program to teach professional scientific writing to organic laboratory students.

The Langenhan research group has published their first communication (*Bioorg. Med. Chem. Lett.* **2008**, *18*, 670-673). Jeffrey Engle ('07), Lauren Slevin ('08), Lindsay Fay ('08), Ryan Lucker ('08), Kyle Smith ('08), and Matt Endo ('08) are co-authors. The results described in the paper provided the basis for a patent that SU filed last fall. Group members Liane Fukumoto ('09) and Derek Rogalsky ('10) have been gathering data for a full paper. Abby Griebenow ('08) worked hard during the spring to implement a synthetic route that would provide access to critical starting materials. Edouard Mul-larky ('09) has worked during the school year and this summer toward the synthesis of the amphimedosides, natural products that display promising anti-tumor properties.

To stay abreast of current events in the Langenhan group check out their website: <http://fac-staff.seattleu.edu/langenha>.

### Jennifer A. Loertscher, Assistant Professor, 2003-present

Jenny Loertscher is starting her sixth year as Clare Boothe Luce professor in chemistry. Jenny teaches primarily general chemistry and biochemistry and has enjoyed teaching both using an active learning format. Last fall Jenny and Vicky Minderhout were awarded \$489,000 from the National Science Foundation to nationally test and disseminate active learning materials for biochemistry developed at Seattle University. These materials will be used at 10 different institutions in the upcoming school year including in a class of 170 students at University of Nebraska. In addition, Jenny and Vicky have hosted several workshops to train other professors to use these materials. A workbook of their biochemistry activities will be published for use at select institution in fall 2008. Wider publication is expected in 2009.

The Loertscher research group had four students, Christine Cachola ('08), Mellena Giday ('08), Peter Moore ('09), and Stacy Ordonio ('09) over the 2007-08 academic year. Two new students, Jun Wen Zhong ('10) and Laura Poellet, joined the research group in June 2008. Peter, Stacy, Jun and Laura worked fulltime in the newly renovated biochemistry research lab over the summer. The group made progress on two projects using yeast as a model system to study the biochemistry of cellular adaptation to changing environmental conditions. This work was funded by the Henry Luce Foundation and Research Corporation.

## Current Faculty & Staff

### Other Faculty



Walter Duncan  
Ph.D., Univ. of Washington  
General



Angeline Kantola  
Ph.D., Univ. of Washington  
General, Organic



Karisa Pierce  
Ph.D., Univ. of Washington  
Analytical



Mara Rempe  
Ph.D., U. of Ariz.-Tuscon  
Associate Dean, S&E  
General



Jennifer Sorensen  
Ph.D., Univ. of Georgia  
Director, General Science  
General



Martha Tanner  
Ph.D., U.N.C. Chapel Hill  
General

### Staff



Huan Luong  
Instrumentation Manager



Kasia Pietrzyk  
Laboratory Supervisor



Doris Sidrovich  
Administrative Assistant



Kristina Smith  
Laboratory Manager

---

## Faculty and Staff News

---

### Ryan P. McLaughlin, Associate Professor, 2001-present

Ryan taught the entire year of physical chemistry lecture and laboratory during 2007-2008, as well as the first quarter session of general chemistry. He continued to develop new active learning exercises utilizing the laptop systems awarded with the 2007 Hewlett-Packard Technology for Teaching Leadership grant, and presented the results of his work to date at HP's Worldwide Higher Education Conference in San Diego last spring.

In the research lab, Kim Woo ('08) and Nguyen Trinh ('08) finished their work characterizing the molecular structure and vibrational modes of a specific hydroxyalkyl nitrate compound this past spring. They were involved with the synthesis, computer modeling and measurement of vibrational spectra for this compound. Ofer Alves ('09) joined the group this past year, beginning a computational chemistry project modeling donor-acceptor substituted azulene compounds for use in non-linear optical (NLO) materials applications. He will work with Ryan on this project during the summer '08 session funded by an undergraduate research grant through the Dean's office. Ryan's research group also saw their manuscript on alkyl nitrites, which included as co-authors former Seattle University undergraduates Tom Zhang ('06), Alex Donald ('06) and Duangporn Jitjai ('08), published in *Spectrochimica Acta A* during the 2007 summer quarter.

Outside of SU, you can usually find Ryan working on his house, cooking with his family, riding his bike, or playing with his two kids, Nathan (4.5) and Audrey (1.0).

### John Meany, Professor Emeritus, 1983-present

John Meany taught the 200 level organic chemistry series last year and directed the research of Nate Hines ('08). Nate's work concluded a project on the Sulfonamide Inhibition of Carbonic Anhydrase, a study in which the ability of drugs to treat the symptoms of glaucoma was shown to parallel the extent to which they inhibit carbonic anhydrase. The results of that study will be submitted to the *Journal of Physiological Chemistry and Physics* for publication. Dr. Meany also procured financial support for his research students through the Dreyfus foundation. Dr. Meany will be on campus this year only sparingly so that he can catch up on his writing and to do some traveling.



Chemistry department faculty and staff in May 2008. Left to right: Prof. Doug Latch, Prof. Kasia Pietryzk, Prof. John Meany, Prof. Kristy Skogerboe, Huan Luong, Prof. Jen Sorensen, Doris Sidrovich, Prof. David Thorsell, Prof. PJ Alaimo, Prof. Jenny Loertscher, Prof. Ryan McLaughlin, Prof. Vicky Minderhout, Prof. Karisa Pierce, Prof. Sue Jackels, Prof. Joe Langenhan.

---

## Faculty and Staff News

---

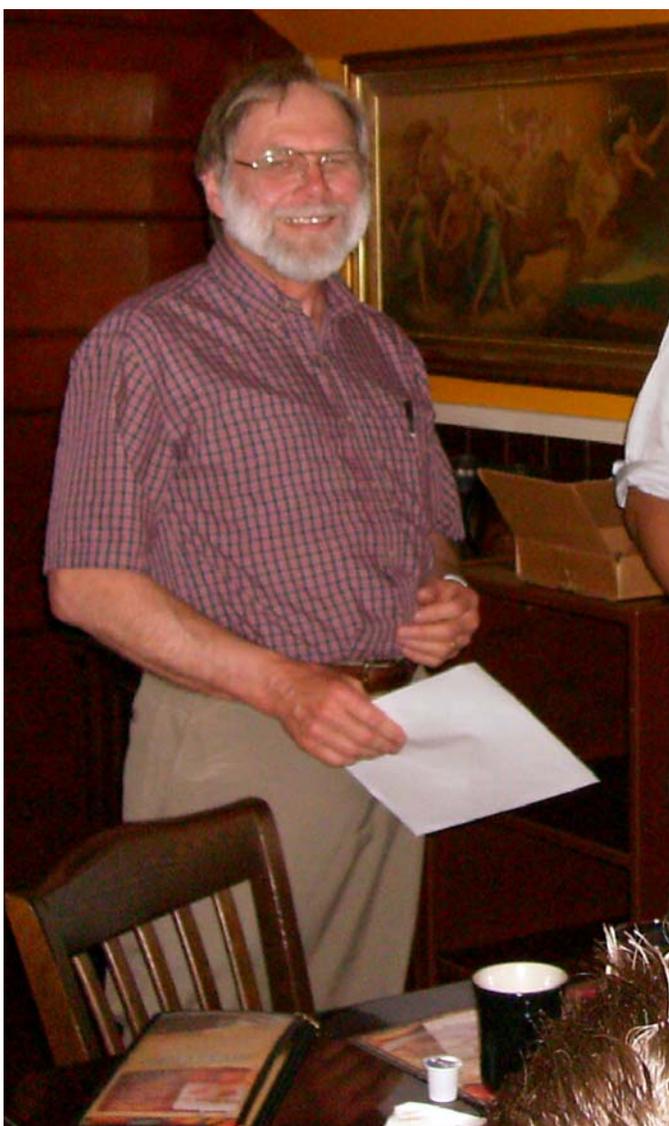
### **Vicky Minderhout, Professor, 1980-present**

Vicky's 28th year at Seattle University was a busy one. In addition to teaching biochemistry and general chemistry courses and supervising research students, Vicky worked hard with Prof. Loertscher to get her NSF-funded active learning project off the ground. You can learn more about this project on p. 3 of *The Spectrum*.

### **Kristen Skogerboe, Professor, 1995-present**

It seems like I spent last year recovering from the angst associated with planning and executing the remodel as well as a rupture of my Achilles tendon, suffered while pretending to be a weekend warrior (don't ask). I tell you, it made me realize the value of the professions of orthopedic medicine and physical therapy! Fall was especially enjoyable as I had the chance to teach Biochemistry for the first time with Dr. Minderhout. Seeing the full program of POGIL in action was really illuminating and helped me to understand the full power of that way of teaching. I enjoyed teaching Quant in our new labs and also got to co-teach a section of Forensic Science with a police officer. It seems the theme for me this year was "collaborate."

Heading into summer, I have been working with several faculty and students to direct research with the ABI 310 DNA analyzer (capillary electrophoresis), as well as with the Dynamic Surface Tension Detector. Yes, that equipment has been resurrected and is being used to study dehydrated food products. I am also working campus-wide as co-director of SUURA (Seattle University Undergraduate Research Association). I am really looking forward to building a larger, better supported program of undergraduate research on campus.



Professor David Thorsell

### **David Thorsell, Associate Professor, 1974-present**

David again assumed the role of department chair this fall. Between this work and mentoring a student researcher, David has had his hands full!

### **Angeline Kantola, Adjunct Professor, 2003-present**

In addition to teaching general chemistry and organic chemistry courses this year, Angie led a workshop for fifth grade girls at the Seattle Expand Your Horizon event this spring called "Chemistry and Art Go Together Like Oil and Water!" They talked about how even when people do art—which seems to be as far away from science as possible—it can be useful to know a thing or two about chemistry. They did a simple printmaking art project using oil-based ink and watercolors. Angie demonstrated that water-based inks don't hold up so well when coloring with watercolor paint, and related the insolubility of oil and water to other systems they know (like salad dressings), and talked about soap being able to mix the two together.

Angie also gave a talk called "Faster than a Speeding Electron: Chemistry, History, and the Pace of Technological Change" to the Odyssey program for academically-advanced middle school students. It was basically a guided tour of the timeline of major events in the interaction of human beings with the material world...all to underscore that the scientific advances of the last 100 years, which we pretty much completely take for granted, are all incredibly new in the grand scheme of human existence. Fun!

### **Karisa Pierce, Adjunct Professor, 2007-2008**

Karisa spent her second year working here at her alma mater where she taught general and analytical chemistry courses. Karisa is excited to begin as a full-time tenure track faculty member at Seattle Pacific University this fall.

---

## Faculty and Staff News

---

### Jennifer Sorensen, Assistant Professor, 2000-present

Jen has been busy the past year, both in and out of the classroom. She is still teaching all three of the general chemistry courses, and just wrapped up her 8<sup>th</sup> year of teaching chem. 123 in the summer. In addition, she is teaching an Introduction to Environmental Science course and the Senior Synthesis sequence for Environmental Science and General Science majors. Jen is serving on an exam committee for the American Chemical Society, and is working with a pilot team of science educators to improve Washington high school graduates' readiness for college-level science coursework.

Projects are bubbling in the research lab, as well. Maria Dougherty ('08) has re-developed a soil analysis experiment to incorporate Vernier data acquisition tools; this lab is going to be piloted with the Intro Environmental Science class in the fall. Kristina Smith (BS General Science '06) has returned to her senior project, investigating antimicrobial activity of Northwest plants. One of our ultimate goals is to turn Kristina's experimental protocol into a high school curriculum kit. Jen was also co-author on a paper describing a computational chemistry "lab" exercise published in the *Journal of Chemical Education* last fall.

Jen is still active with the Seattle Expanding Your Horizons conference. We had over 450 5<sup>th</sup>-8<sup>th</sup> grade girls on campus for this year's conference, which was a fun-filled day of hands-on science learning and career exploration. Several S&E faculty were on the planning committee and served as workshop leaders, and we had many SU students volunteering on conference day, including chemistry department students Marianne Mork, Elena Ovechkina, and Cara Southworth.

### Huan Luong, Instrumentation Manager, 2001-present

2007/2008 was an uneventful year for Huan Luong, our Lab Instrumentation Manager. He wanted to drive across the U.S. this summer, but was stopped by the rising price of gasoline. As a result, he spent most of his time in the lab tuning and fixing instruments, in preparation for the fall quarter. Huan also is our web master and has been taking care of the chemistry web site for many years.

### Kasia Pietrzyk , Laboratory Supervisor, 1987-present

2007-2008 was a busy but fulfilling year for Kasia. Kasia was this year's recipient of SU Staff Leadership Award! The chemistry department again hosted a Laboratory Safety Workshop, July 22-25, held by the Laboratory Safety Institute of Natick, MA, which specializes in lab safety courses for laboratory supervisors, scientists, and science educators. We had 10 participants from Colorado, California as well as local. She is also extremely excited to work with our newly hired Chemistry Laboratory Manager, Kristina Smith.



Kasia and Kristin at the Laboratory Safety Workshop in July 2008.

---

## Student News

---

### Nathan Furukawa Wins Mission Award

---

Nathan Furukawa was one of two students to earn SU's prestigious Mission Award for Outstanding Leadership in Academic Excellence this spring. The Mission Award recognizes students who embody academic excellence through achievement, preparedness, engagement, and intellectual inquiry. These students take a leadership role within the classroom and in other academic endeavors, such as research, academic societies, mentoring efforts, and tutoring programs. Congratulations Nathan!!

### Stephanie Kleven Wins Fulbright

---

Stephanie Kleven spent fall 2007 – spring 2008 on site in Matagalpa, Nicaragua where she was a Fulbright Fellow working on a project to investigate the effect of coffee cooperatives on family access to health care. Congratulations Stephanie!!



Stephanie Kleven interviewing a Nicaraguan coffee farmer.

### Liane Fukumoto Lands Summer Internship

---

In the summer of 2008 Liane worked at Gilead Sciences in Foster City under Dr. Scott Lazerwith. She performed multi-step synthesis and purification of organic molecules. Her molecules will go on for biological testing as anti-viral agents. A particular target is the hepatitis C virus.

### Samuel Byrne Internship

---

Sam Byrne worked over the summer at National Jewish Health in the lab of Prof. Raul Torres, a well-known immunologist. Sam is investigating how B cells are receptive to several species of lysophosphatidic acid (LPA) inhibition. He has found that most LPA species have an appreciable effect on B cell stimulation.

### Bannan Scholars

---

The Thomas J. Bannan Scholarship Program awards scholarships to upper-level Science and Engineering students who demonstrate high levels of academic achievement and a strong commitment to service to the campus and greater community. Congratulations to our 2008-2009 Chemistry Department Bannan Scholars: Kelly Daumit, Samuel Johnson, Derek Rogalsky, Nathan Furukawa, Amanda Marshall, Edouard Mullarky, Corey Paulino, and Matthew Ryskalczyk.

### Dean's List

---

Over 30 chem. dept. majors made the Dean's list (quarterly GPA 3.5 or above) at least one quarter over the 2007-2008 academic year. Their names are listed below. Congratulations!

James Bowersox	Jonathan Moran
Samuel Byrne	Edouard Mullarky
Mackenzie Clay	Stella Navia
Kelly Daumit	Corey Paulino
Janise Deming	Tam Pham
Maria Dougherty	Sarah Richardson
Tommy Dunn	Derek Rogalsky
Matthew Endo	Dmytro Rudoy
Lindsay Fay	Matthew Ryskalczyk
Hannah Franklin	Janie Sacco
Liane Fukumoto	Lauren Slevin
Nathan Furukawa	Cara Southworth
Courtney Goodwin	Brenda Trejo
Lyly Huynh	Elizabeth Tyson
Amanda Ikehara	Christopher Whidbey
Patrick Marcus	Kimberley Woo
Tyler Matossian	Linda Yi
	Lindsey Youngquist

### Conference Presentations

---

This year, many Seattle University students have presented at local, regional, and national conferences. These presentations include the following.

At the 22nd National Conference on Undergraduate Research:

**L.R. Fay, J.M. Engle, R.W. Lucker, L.K. Slevin, K.R. Smith, J.M. Langenhan.** "Expanding the Scope of Oxyamine Glycosylation to Enhance Biological Activity." Poster.

At the 16th Annual Murdock Conference on Undergraduate Research:

**L.R. Fay, D.E. Latch.** "Photochemical decay of pharmaceutical water contaminants." Poster.

**L.R. Fay, J.M. Engle, R.W. Lucker, L.K. Slevin, K.R. Smith, J.M. Langenhan.** "Expanding the Scope of Oxyamine Glycosylation to Enhance Biological Activity." Poster

**L.K. Slevin, A. Griebenow, E. Mullarky, L.R. Fay, R. Suess, J.M. Langenhan.** "Total Synthesis of Amphimides." Poster

*(continued on next pg.)*

---

## Student News & Class of 2008

---

(continued from pg. 9)

**B.A. Edquist, T.N. Pham, S.C. Jackels.** "Simultaneous analysis of Lactic and Ascorbic Acids in Fermented Coffee Mucilage from Small Farms in Nicaragua." Poster

At the American Society for Biochemistry and Molecular Biology:

**P. Moore and J.A. Loertscher,** "Investigation of Cold Sensitivity in *Saccharomyces cerevisiae*", Poster

At the Society of Toxicology:

**M. Giday and J.A. Loertscher,** "Investigation of the Effect of Oxidative Stress on the Protein Stability of the Insulin Transcription Factor MafA", Poster

---

### Chemistry Department Award Winners

---

#### Outstanding Senior Chemistry Award

Matthew Endo and Tam Pham

#### Outstanding Senior Biochemistry Award

Lindsay Fay

#### Outstanding Senior Clinical Lab Science Award

Nathan Hines

#### Undergraduate Award in Analytical Chemistry

Edouard Mullarky

#### Hypercube Scholar Award (Physical Chemistry)

Edouard Mullarky

#### Undergraduate Award in Organic Chemistry

Daniel Anderson

#### Outstanding Performance in General Chemistry Award

Michael Argenyi

---

### Class of 2008

---

MinhTu Banh	Grad school at Midwestern Univ.	Amanda Ikehara	unknown
Christine Cachola	Applying for training in podiatry	Immanuel Kim	unknown
Jody Cook	Applying for jobs	Vi Nguyen	unknown
Maria Dougherty	Planning to pursue masters in teaching	Tam Pham	Grad school at Rice Univ.
Britt Edquist	Pursuing masters in teaching	Lauren Slevin	Applying to grad school
Matthew Endo	Applying to grad school	Shannon Thomas	Working at VA hospital in Seattle
Lindsay Fay	Grad school at Univ. of Wisconsin	Nguyen Trinh	unknown
Mellena Giday	Applying for jobs	Elizabeth Tyson	Grad school at Univ. of Wisconsin
Courtney Goodwin	Applying for jobs	Marina Yeh	Applying to pharmacy school
Abigail Griebenow	Applying to pharmacy school	Linda Yi	Applying for jobs
Nathan Hines	Mayo Clinic	Kimberley Woo	SCCC Culinary School
Lyly Huynh	Seeking nursing jobs		



---

## Alumni Notes

---

### Class of 1953 and 1984

Joan Brand-Landkamer writes: "I am pleased to have been sent an email concerning the prosperity of your Chemistry Department at SU. I live out here in Ocean Shores on a lovely little Duck Lake, doing what I feel God suggests I do, and that is to write as many icons as I can." Joan has written over two dozen icons for St. James Cathedral in Seattle. You can explore her beautiful work at <http://www.stjames-cathedral.org/Tour/icons.htm>

### Class of 1996

Paul Riley writes: "I am now a postdoc on cardiovascular research training grant at Univ. of Penn, where I do high throughput screening against protease targets involved in cardiovascular disease and malaria. I hope to apply for jobs in biotech or pharma by the end of 2009."

### Class of 2006

Bobby O'Brien and Jamie (Garcia) O'Brien both passed their oral exams to advance to candidacy in the Ph.D. program in chemistry at Boston College.

Lorien Wallace is in Pomona, CA, going to school at Western University College of Osteopathic Medicine. She started a summer prep program on June 30th and will officially start the Doctor of Osteopathic Medicine Program on August 11, 2008.

### Class of 2007

Patrick Naleway got a job at Invitrogen Corporation in Eugene, OR this year, and was quickly promoted to the Biochemistry Kits Development Department. He is looking forward to applying to graduate school in biochemistry.

In the next issue of *The Spectrum* we look forward to sharing notes from you, our alumni. **Please send your class notes to [langen@seattleu.edu](mailto:langen@seattleu.edu) with the subject "Alumni Notes."** Be sure to include the year of your graduation in your message.

