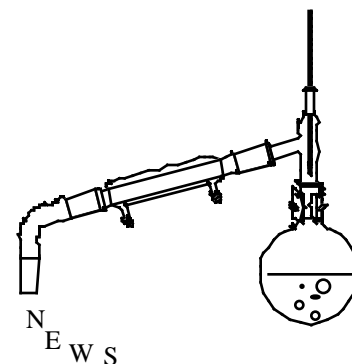


# Distillations

A Newsletter for Chemistry Alumni  
Summer 2000



Summer research was fast and furious. Top: Jim Currie, Brandy Moore, Matt Seidel, Kevin Johnson, Rick Whiteley. Bottom: Rachel Ander-

## A Landmark Year

It is fitting that, in this year marking the beginning of a new millennium and Pacific's 150th anniversary, the Chemistry Department at Pacific has experienced a period of profound growth and progress. Thus we are pleased to report in these pages on the addition of five fine new graduates to the ranks of our alumni. We have also added a fifth member to the full time tenure track faculty of the department and are pleased to welcome an environmental scientist to the division. As reported in the winter newsletter, we have experienced unprecedented enrollment growth and the general chemistry curriculum is being transformed by technological and programmatic innovations. This is all very satisfying to us as we strive to provide our students with the best education possible to prepare them for successful lives in a culture characterized by rapid change and unending challenges. You, our alumni and friends, are an important part of the "us" of the previous sentence. Our program derives strength from your accomplishments in the workplace and community. We deeply appreciate the many contributions you have made to our success. Please keep in touch.

## Johnson awarded tenure

Kevin Johnson was welcomed to the ranks of tenured faculty at Pacific during the spring, 2000. Kevin, a physical chemist specializing in the study of surfaces by scanning tunneling microscopy, joined the chemistry department in 1994 having earned a B.S. from Stanford and a Ph.D. from the University of Washington. As readers of *Distillations* already know, he has been a leader in revision of the general chemistry curriculum, most recently having secured a grant from NSF for computerization of the general chemistry labs. Coincident with receipt of tenure, he was promoted to Associate Professor. Congratulations Kevin!

## Let's Hear From You!

While many of our alumni have sent in responses, we have still not heard from others. We would like to confirm that all are receiving this newsletter and, of course, we would like to know what you are doing. Enclosed is a post card for your convenience in replying. If you prefer, send an e-mail message. Contact information is given in the sidebar.



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## Chemistry Grads in 2000

**Dima Azar** graduated Magna cum laude with a major in chemistry and a



minor in Spanish. Working with Jim Currie, she completed a thesis entitled *Cyclopropenes and Their Reactions with Carbenes*.

Dima is interested in a medical career or graduate school but wishes to spend some time in the workplace before returning to the classroom. Her immediate plans include a position with Intel in Hillsboro, OR.

**Christie Kalamen** of Loveland Colorado, graduated Cum laude with a major in chemistry and a minor in mathematics. She participated in the wind ensemble for four years as a clarinetist. She conducted research in the summer REU program at the University of Wyoming. Working with Jim Currie, she completed a thesis entitled *The Investigation of Blue Pigments in Purple Kale*. Christie was married in June to Nicholas Nielsen in Colorado. She plans to attend graduate school in environmental science after a year off.



**Max Montano** of Eugene, Oregon, graduated Magna cum laude with a major in chemistry. He was honored as Outstanding Senior in the Natural Sciences. He was named as one of the top chemistry majors in the Portland Section of ACS. Max spent 3 summers doing research, one year with the summer REU program at the University of Wyoming and two at Pacific University. Working with Kevin Johnson, he completed a the-



sis entitled *Morphology of Electrochemical Deposition of Metals upon Metals*. He has been admitted to the graduate program at the University of California at Berkeley but has opted to work for Intel in Hillsboro, OR prior to continuing his education at the graduate level.

**Nate Meyer** of Portland, Oregon, graduated with a major in chemistry and a minor in mathematics. Nate was a four year member of the baseball team at Pacific. He is currently exploring the job market and the possibility of a further



degree in chemical engineering.

**Heather Pyke** of Eureka, California, graduated Cum laude with a major in chemistry. She is currently employed at Triple Point Biologics in Portland. She is considering professional education in dentistry or optometry.

**Tina Weast** resignation

Tina Weast, Health, Safety and Chemicals Coordinator for the University and Stockroom Manager for the Chemistry Department, has resigned her position in order to enter Pacific's graduate program in education. Tina's versatility will be much missed. She split a full time position between Campus Safety and our Department. In this capacity she has directed the hazardous waste program for the university and managed all facets of the chemistry stockroom and laboratory prep program. She has also made valuable contributions as a chemistry laboratory instructor. While Tina will be hard to replace in the chemistry program, her addition to the ranks of qualified high school chemistry teachers will be invaluable.



**Jordan is OCEPT Fellow.**

Bill Jordan has been awarded a fellowship from the Oregon Collaborative For Excellence in the Preparation of Teachers, OCEPT. OCEPT is an NSF-funded program whose major thrust is to facilitate the preparation of science teachers at the elementary and secondary levels. Bill is developing a course called Chem Excel to supplement general chemistry. The course will be designed to assist students who experience difficulty in general chemistry. Bill attended the annual OCEPT summer conference, Showcase 2000, at Pacific University, June 13-15, and will attend workshops on Excel programs and Peer-led teaching at Portland State University in August.

## New Faculty

**Jodi Paar** was the successful applicant in a national search for a biochemist. She fills a new position, increasing the full time chemistry faculty to five. She completed her Ph.D. at Cornell in the spring of 2000, conducting research on the chemistry of the immune system. Jodi will teach Organic Chemistry while Jim Currie is on sabbatical in the fall semester and in the spring will teach biochemistry and general chemistry. In the 2001-2002 academic year, we plan to expand the biochemistry offerings by adding a laboratory and a second semester. The department is very excited about strengthening its biochemistry component and looks forward to welcoming Jodi aboard in the fall.

While not formally a part of the Chemistry Department, a new appointment in Environmental Science will greatly strengthen Pacific's science offerings and directly impact our newest emphasis in Environmental Chemistry. **Deke Gundersen** will leave a position as Assistant Professor of Biology at the University of Southern Indiana where he conducts research in aquatic toxicology. Originally from Encino, California, he obtained a Ph.D. in fisheries at Oregon State University in 1995. Deke will become the director of the interdisciplinary Environmental Studies Program which encompasses coursework and degree programs in biology, chemistry, economics and political science.

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## Alumni News

Following graduation, **Angela (Findlay) Bellantoni, '82** tried her hand as a math and science teacher at the junior high level in Arizona. She liked teaching enough to complete a masters



in secondary education in 1985 at Northern Arizona University in Flagstaff. Her emphasis in graduate school was in assessment techniques. She became an advocate for

discarding the point system of grading and, while students often found this disconcerting, her intent was to encourage learning by using a system which responded more rapidly to student improvement. She had ample opportunity to put her ideas about assessment and motivation to work as she accumulated teaching experience as a chemistry instructor in high school, college level (NAU) and later junior college in Arizona and New Jersey.

Angela's career interests next took her to the graduate program in Environmental Science at Rutgers University in New Brunswick, New Jersey. She has completed the bulk of her coursework and has qualified as an official doctoral candidate. Her chemistry background is much valued in the program where her emphasis is in pollution prevention and remediation of the effects of mining.

When Angela and her family moved to a small town in Colorado recently, her challenge was to find rewarding work in her area of interest and expertise. She ended up convincing a landfill operator that he needed her assistance in coordinating the construction and compliance of a new landfill. Currently she is Environmental Scientist and Compliance Coordinator for a local family which owns 11 mining sites. She handles permits, monitoring, sampling, annual reports and community concerns or, as she puts it, appeasing "dis-

gruntled neighbors." In March she had to deal with a serious accident at a mine site. She also has "...the privilege of dealing with any and all regulatory entities that my bosses don't want to talk to including but not limited to EPA, OSHA, MSHA, County Commissioners, Town Councils, Water Quality, State Engineer, etc."

So what does the future hold? Her progress toward the PhD was set back when the company with which she was working on her dissertation was sold. However, she now has a new project on remediation of petroleum scum on freshwater. Meanwhile, she has other plans. "I hope to start my own business this year, Environmental Concepts by Angela Bellantoni. I will do permitting, be a liaison between mine owners and regulatory entities, monitoring, sampling, secondary commodity brokerage, tire chipper leasing. Yes, all of the above. Just watch."

Angela is married to John Bellantoni. They have two children, Alyssa, 11 and Marc, 7.

Since completing a degree in chemistry, **Kim Kim Yee, '94**, has been on a personal odyssey which has taken her to East Africa and back. While she keeps returning to the Portland area, she also keeps leaving for new experiences. Following graduation, she worked for C A C h e Scientific, a molecular modeling software company. However, an opportunity to join the Peace Corps was too good to resist and she spent the next three years in Tanzania. When asked about her Peace Corps experience, Kim Kim responded enthusiastically:



"Peace Corps is the best decision I've ever made. Hands down. I grew im-

mensely, learning more about myself than I could ever have had I just stayed in the US. I grew not only personally but also professionally. The challenges of living abroad, learning a completely new language and culture, and then teaching! It really made me take a second look at the way I thought about things, and about how others may have thought about the same thing. Existing out there are literally entire worlds that I couldn't have thought up in my wildest dreams.

While in Tanzania, I taught chemistry at an all girls' government boarding school. I definitely used my chemistry! Unfortunately, the government funds were extremely limited, which meant no glassware (or, actually, 2 beakers until I broke one of them ... oops) and hardly any chemicals much less any gas for burners, hoods—nothing. I actually commissioned someone to paint the periodic table on a large scroll so I could take it to classes with me when I taught! (I never realized the importance of seeing something so often that it becomes second nature). It was difficult to teach chemistry without any labs, especially for someone who practically lived in and loved the lab aspect of this science. Creativity was definitely necessary in trying to think of ways to teach such abstract concepts as electrons to girls who only got electricity sporadically."

Following her Peace Corps experience, Kim Kim returned to Portland and resumed her work in molecular modeling, this time with Schrödinger Inc. It was not long before her restless feet took her away from home again, this time to Indiana where she is a graduate student in a joint MBA/MSES (Public Affairs and Environmental Science) degree program. She is doing a specialized concentration in Water Resources and Environmental Policy and Natural Resources. Her Peace Corps experience counts toward satisfaction of the internship requirement. Why Indiana? Kim Kim offered the following thoughts.

"If I had never gone to Tanzania, never in a million years would I have considered coming to some place that doesn't exactly have the best reputation out in the Northwest. Indiana is an experience for me. One of the reasons I chose IU is because it's in the Midwest. I wanted to live someplace that I was fairly certain I would have very little chance of ever going. So I thought graduate school would be a great opportunity to explore the country a little more. I like it, but I'm realizing that I truly love the Pacific Northwest. I'm experiencing a 'true' winter, snow and freezing cold, and it's great multicultural community allowed me to hear the Dalai Lama speak the second week I got into Bloomington!

I anticipate being here for two years, hoping very much to get a State Department Internship working with an American Embassy in a Sub-Saharan African country next summer. For my last semester, I want to take the wonderful opportunity of living in Europe by doing a semester at Delft University in The Netherlands."

What lies in Kim Kim's future? While she still thinks of the Pacific Northwest as home, she has yet to slake her wanderlust. "I'm hoping to take my degree and work internationally, helping local communities in developing nations to decide how to manage their local resources, particularly water. My village in Tanzania had severe water issues which gives me the impetus for water resources specialization."

Obviously, the Peace Corps was a life transforming experience for Kim Kim, one which seems to influence everything she does.

**Elizabeth Irby Rice, '79** is in her 17th year with Intel. Following graduation from Pacific, she spent three years as quality control director for a small pharmaceutical lab which manufactured products for Fred Meyer. During her first 12 years at Intel, her title was that of engineering technician, working as liaison between process manufacturing and engineering. For the past five years she has been with the Microprocessor Design Group as a mask designer do-



*Beth enjoying sailing*

ing computer aided design. Currently the group is working on the new ultra fast Pentium III microprocessor. Beth "loves her work." She notes that Intel is always looking for good people and she is happy to receive referrals.

For the past sixteen years, Beth has been married to Robert Rice, who she recruited into the Microprocessor Design Group four years ago. Today their desks are about 30 feet apart. How does this mix of work and marriage and career work out? Great, according to Beth. They try not to talk about work at home. Good idea.

Beth and Robert have two children. Katie, 14, will begin high school this year. Sam, 11, is a middle school student. The Rices enjoy sailing the 23 foot boat they bought on a whim 3 years ago. They confine their maritime adventures to the Columbia and Willamette and have no plans to go over the bar. Beth, who had not run for almost two decades, successfully completed the Portland marathon in 1999 and is training for a return in 2000. What a way to celebrate the millennium! Go Beth!

**Tommy Veazey** is the recipient of the prestigious Harold Zeh scholarship. The award, given by the Portland Section of ACS, recognizes the outstanding junior chemistry major in our region. This marks the second consecutive year it has been presented to a Pacific student.



## Currie on sabbatical

Jim Currie will use a sabbatical leave during the fall semester, 2000 to extend and refine his molecular modeling capabilities. Jim has been a leader, nationally, in the applications of computational chemistry in chemical education. He was sought out by Tektronix in 1987 to consult in the genesis of its CACHe (Computer Aided Chemistry) software. In time, CACHe Scientific was spun off as an independent corporation and later was acquired by Oxford Molecular. Jim's continuing work with CACHe Scientific yielded enormous benefits to the chemistry program at Pacific which was the recipient of generous gifts and discounts from the company. Of equal importance was the expertise and leadership he brought to implementation of modeling in the chemistry curriculum at Pacific. Now, Pacific students and faculty have ready access to CACHe capabilities through an unlimited site license. Students first encounter molecular modeling in the fall semester of general chemistry and continue to develop their capabilities in advanced courses. They graduate with the ability to discern when and how to use modeling in the solution of chemical problems.

In order to remain at the forefront of applications of computational chemistry in chemical education, Jim sees the need to bring the power of *ab initio* methods to the curriculum. This methodology depends on fewer assumptions about the molecules but requires much more complex calculations. CACHe, and other widely used molecular modeling software, use semi-empirical methods to make rapid calculations possible. However, as speedier computers become available and as software development proceeds, *ab initio* methods become increasingly accessible for everyday applications. During his sabbatical, Jim will work with the relatively new Portland-based startup, Schrodinger, Inc.

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**The Pacific University  
Chemistry Department**