

Chemistry Selected To Receive 'Clusters of Excellence' Hires

This past spring the provost's office solicited proposals for a university-wide hiring initiative entitled "Clusters of Excellence." These clusters would be strategic hires of junior and senior faculty members to advance key areas of existing UO research strengths, which would elevate those areas to national and global prominence. More than 40 proposals were submitted and 10 were selected as finalists with a "high priority for funding," representing diverse fields, from obesity research to volcanology. Notably, two of the 10 finalists are led by Department of Chemistry and Biochemistry faculty members, and will build on existing strengths in structural biology and materials science.

Life at the Nanoscale

"Our cluster hiring initiative is called 'Life at the Nanoscale,'" says Associate Professor Brad Nolen. "The whole idea is that understanding how biological processes work requires understanding the molecules that carry out these processes, specifically their structures. Any biological process, even something as complex as cells crawling or dividing, comes down to the interaction of molecules with each other, which depends on their structures."

The UO already has instrumentation and infrastructure to take our understanding of foundational processes in biology to the next level. Within the department is equipment for x-ray crystallography and nuclear magnetic resonance spectroscopy. Both of these techniques allow for a clear picture of the shapes

of molecules and how they are arranged in three-dimensional space, which in turn illuminates their function and how they interact with other molecules. "The goal is to increase our ability to lead the way in structural biology and life sciences," says biochemist Nolen, who is the nanoscale cluster's coordinator along with biochemist Ken Prehoda. "We think this hiring will not only push us ahead and take advantage of existing resources but will also create bridges between different departments."

The Life at the Nanoscale hiring cluster plans to add three new faculty members. The first is someone skilled in cryo-electron microscopy. This technique allows users to determine molecular structures without having to grow crystals of those molecules, which is required for x-ray crystallography and is sometimes difficult to do. The university has an electron microscope, and the cluster funding will provide funds for an upgrade to the microscope so it can be used for biological molecules. "Within the last four to five years there have been some major breakthroughs, specifically in the cameras that are used to collect the images," says Nolen. "Now is a really good time for us to begin expanding our electron microscopy capabilities from materials science into life sciences."

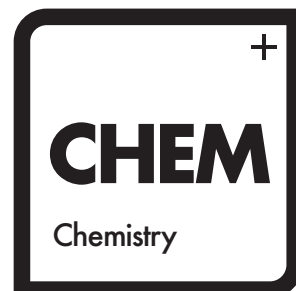
The second hire would be someone who does NMR spectroscopy. "The beauty of NMR in terms of studying biological molecules is that it is complementary to other imaging," explains Nolen. "Rather than creating static pictures, it tells you how the atoms are wiggling around as a function of time. We have some excellent instrumentation to do this already and we want to build on that."

INSIDE

- 2 New Science Library
- 2 Condom of the Future
- 3 Department Head's Perspective
- 4 Thai School Names Green Chemistry Lab for Ken Doxsee
- 6 Faculty Awards
- 8 New Faculty
- 9 News Briefs
- 10 Student Awards
- 11 In Memoriam – Lloyd Dolby
- 12 Alumni News
- 15 Honor Roll



Biochemistry Professors Ken Prehoda and Brad Nolen.



continued on page 5

New Science Library Planned for 2016

The well-worn basement science library is finally getting a much-needed makeover. More than a facelift, the plans call for the \$16.75 million, two-story Allan Price Science Commons and Research Library to replace the current building by spring 2016. That's just fine with head librarian Margaret Bean.

"We're going to get rid of the cave-like feel," Bean says. "When people walk in, they will be embraced by technology." The original science library was built in 1969 and was expanded in the 1990s. Since 2000, there has been a 72 percent increase in the number of UO students majoring in the sciences and they will finally have a

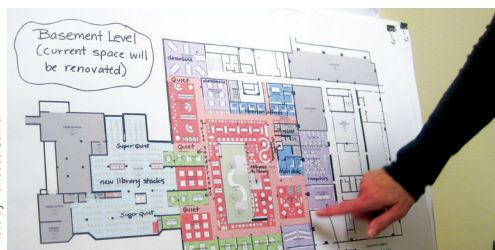


Photo by Vanessa Salvia

Head science librarian Margaret Bean points to the new Maker Space in the proposed Allan Price Science Commons and Research Library facility, to be completed in 2016.

facility worthy of all of those study hours. The new library's namesake, Allan Price, served as vice president for advancement at the UO from 2001 to 2008.

The current library spans the basements of four buildings: Onyx Bridge, and Klamath, Willamette, and Cascade Halls. Behind the wall under Klamath is a computer lab. That wall will be opened up for improved flow. Plans call for the atrium outside to be elongated and narrowed, bringing in much-needed natural light. Five thousand square feet will be added upstairs at ground level, with a grand staircase descending into the library space. New classrooms to seat 50 and 30 students will be added to replace the current 20- and 25-student classrooms. "These rooms will be flexible spaces outfitted with the latest teaching technology," Bean says. Above the atrium will be a coffee shop and seating area.

The library has been active in soliciting the opinions of what students, faculty and staff members want in their future library. "What we heard a lot is that the students want more quiet space," Bean says. "As you move west through the new library it will become increasingly quieter, with designated quiet rooms with doors. Students also wanted enclosed group-study rooms. The library is used by students and staff members of Chemistry, Biology, Human Physiology, Geology, Physics and Computer and Information Science. Each discipline will have its own multipurpose study room.

continued on page 5

Creating the Condom of the Future

The Bill and Melinda Gates Foundation issued a challenge—a grand challenge, in fact. Research professor Richard Chartoff, the director of the university's CAMCOR Polymer Characterization and Thermal Analysis Laboratory, answered that challenge with a quest to build a more perfect condom, one that the men of the world will actually want to use.

The Gates' Grand Challenges Explorations Initiative has committed \$100 million to encourage scientists worldwide to innovate ideas to fight the world's greatest health challenges. Initial grants of \$100,000 are awarded two times a year. Successful projects have the opportunity to receive a follow-up grant of as much as \$1 million. Eleven programs were funded through the Grand Challenges grants program last year, and Chartoff's research was one of them.

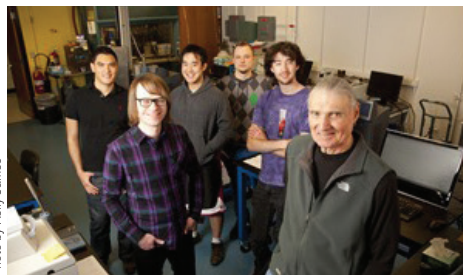


Photo by Kelly James

The Chartoff research group in their lab.

"Condom research is a significant issue for everyone," Chartoff says, "especially in poor countries where diseases and birth control are real problems."

The technology to make today's condoms has not changed in nearly 40 years. Condoms lack sensitivity, are prone to leakage and breakage, and can inadvertently slip off. Condom manufacturers brag that they test their products for strength, but in fact only 1 percent of condoms that reach the retail market are tested, and strength tests are performed on the strongest part of the condoms, the opening, not the bottom (the tip), which is the weakest part.

The majority of current condoms are made of natural rubber latex, to which 5 to 7 percent of the world's population has an allergy or sensitivity to. Latex is composed of tiny spheres that pack together. If the spheres do not pack tightly enough, spaces can form in between the spheres, which can make the condom porous enough for viruses to pass through. Today's condoms offer only passive STD protection because they provide only a barrier. Latex is not compatible with oil-based lubricants and it deteriorates over time, more quickly than condom manufacturers typically advertise. Only 15 percent of US adults use condoms, and 89 percent of those use latex barriers.

Chartoff's idea is for an advanced male condom of a shape-memory polyurethane material that will provide very high strength yet be ultra thin. He also plans to embed drug-containing nanoparticles into the polymer to actively combat STDs. Chartoff's

continued on page 11

Department Head's Perspective New Beginnings



It is my pleasure to write this column for the Department of Chemistry and Biochemistry newsletter, which is my first as its new department head. For those alumni and friends of the department who do not already know me, allow me to briefly introduce myself. My

name is Andy Marcus. I joined the department almost 18 years ago as an assistant professor in the physical chemistry division. My research is on the functional mechanisms of DNA replication using state-of-the-art spectroscopic approaches. I received my PhD from Stanford University, and I did postdoctoral work at the University of Chicago.

During the years since my arrival in Eugene, I have come to greatly value the unique educational and research environment that our faculty and students enjoy. It is not something that we take lightly, as we continually strive to improve ourselves. I am often amazed by the efforts of individuals and groups who routinely make outstanding contributions. The department owes much thanks to my predecessor, Mike Haley, under whose leadership the department has benefited during the last six years. He is a tough act to follow. That being said, I am honored for the opportunity to serve.

All the news described in this newsletter refers to events that have taken place during the 2013–14 academic year. The news ranges from individual promotions and advancements to exciting developments that indicate our rising stature within the scientific community. All are reflections of the professional commitment and creative thinking of our professors and instructors. Below, I mention just a few highlights.

Last year, we were successful in recruiting two outstanding new faculty members to our department. I would like to extend a warm welcome to Ramesh Jasti, who joins us at the associate professor level and will be a member of the organic-inorganic chemistry division. I also welcome James Prell, who comes to us as an assistant professor, and will be a member of the physical chemistry division. The research of both professors Jasti and Prell bridges traditional boundaries, and both are examples of

the exciting cross-disciplinary work that is possible in the collaborative environment we have fostered.

Several of our faculty members are in the news for their professional activities and achievements. A notable example is research professor Richard Chartoff, who was recognized with a Grand Challenges award from the Bill and Melinda Gates Foundation for his forward-thinking work on designing polymer-based condoms to address worldwide human health-related issues. In addition to our faculty, a growing number of our undergraduate and graduate students continue to perform at the highest level, and many have won fellowships and awards that reflect their scholarship.

Finally, I would like to mention that two areas within our department were selected by the provost's office for a university-wide hiring initiative entitled Clusters of Excellence. These initiatives are projected to bring resources and new faculty lines to the department and the UO. We are grateful for the efforts of two groups from our faculty, one organized by Professors Jim Hutchison and Darren Johnson and Assistant Professor Shannon Boettcher in the area of energy and sustainable materials, and the other organized by Professor Ken Prehoda and Associate Professor Brad Nolen, called "Life at the Nanoscale."

Looking forward, it is clear that more exciting developments are on the horizon, and there are bound to be numerous challenges as well. Recruiting outstanding colleagues and students, seeking improvements to outdated facilities, and improving our self-governance models are important activities that will occupy a significant part of our time. Nevertheless, I feel confident and privileged to have such excellent colleagues with whom to push the quality of our department even further.

Best wishes for a pleasant and productive new academic year!

With best regards,
Andy Marcus

P.S. In keeping with the "New Beginnings," some of you may note the new look of this year's newsletter. Last year the college chose an "It's Elemental" theme for all publications and branding. Needless to say, it is wholly appropriate for chemistry to embrace the "elemental" idea! ■

Thailand Names New Green Chemistry Lab for Ken Doxsee

Kenneth Doxsee, a professor with interests in organic, organometallic, solid-state, and analytical chemistry, has been at the University of Oregon since 1989. He has become known for his efforts to share the latest green chemistry concepts and techniques with international educators. Now Doxsee has been honored with a new green chemistry lab facility in Thailand that bears his name.

In 2006, the granddaughter of the king of Thailand paid an official royal visit to the UO. This visit was in response to a distance-learning partnership program in green chemistry between the UO and the Thai Distance Learning Foundation. “While developing materials to support this program, I visited Thailand several times to develop local relationships and to present lectures at conferences,” recalls Doxsee. “While waiting for one of the conferences to commence, I engaged in a conversation about green chemistry—my favorite topic—with a gentleman seated next to me, who turned out to be the president of the Kuwait Chemical Society.” This in turn led to a week-long workshop for Kuwaiti high school teachers. “The materials we developed for this workshop were then transitioned to six live-over-the-Internet laboratory workshops for teachers throughout Thailand,” he says.

Through that initial laboratory workshop series, Doxsee was introduced to the senior administrators of Assumption College Thonburi (ACT), a school for students in grades 1–12, who were interested in adopting a green chemistry curriculum. This represented an ideal opportunity for Doxsee to share what has become the focus of his work: development of safe experiments, using materials that are inexpensive and locally available, to allow students to experience experimental science regardless of their location, facilities, and resources



Left to right: Ken Doxsee, a monk from Rama 9 Temple, and Wetchaiyan Jaturas.

teaching in primary and secondary schools, however, can be very limited due to lack of resources and ill-equipped facilities, particularly in less urban areas of the country. “Teachers are enthusiastic about the possibility of adopting green laboratory materials, and my initial work with ACT has already led to important conversations with the directors of two other Assumption College campuses,” says Doxsee.

The new lab came about during one of Doxsee’s visits to



Courtesy Ken Doxsee

Left to right: Brother Chamnan Laoruckphon (former ACT director, now director of AC Sriracha), Ken Doxsee, dean of faculty of science at Chulalongkorn University and Brother Verayuth Boonpram (director, ACT) at the ribbon cutting of the new lab.

ACT, which led to discussions of the construction of a new teaching laboratory that would serve as a site for the national and international dissemination of green chemistry pedagogy, that would accommodate both laboratory work and lectures-discussions, and that would be undamaged in the event of a repeat of the devastating floods that had inundated the ACT campus the previous year, he says.

When Doxsee was preparing to visit Thailand for the grand opening of the laboratory, he was contacted by ACT and told that they wished to name the laboratory after him. “I was stunned, noting that at ACT, the buildings are named after Catholic saints (and I am neither!), while in the US, buildings are typically named after major donors,” he says. “They replied that, while I had not donated money, I had given them things that were far more important to them—my time, my ideas, and my friendship. When I continued to demur, my Thai colleagues insisted that I understand they wanted to do this, and to be respectful of their sincere desire, I acceded. I am both honored and humbled.”

During Doxsee’s next visit, he will be working closely with teachers from throughout the Assumption College system, providing them with additional hands-on experience with the materials and, most important, discussing the ways in which the materials can be shaped so as to support and enhance nationally mandated learning outcomes.

Doxsee’s work is far from done. To date he has visited Mexico nine times (where his collaborators there jokingly awarded him the title “Mexicano Honorario” or honorary Mexican), Thailand seven times, Israel three times, Kuwait twice, and Germany and Japan once. He is currently a partnership participant in an International Union of Pure and Applied Chemistry project based in Brazil, targeting the expansion of green chemistry throughout South America and Africa, and he has been invited to serve as an international organizing committee member for conferences in Turkey and Israel planned for 2015. ■

Cluster Hires

continued from page 1

The third hire would be a specialist in correlative electron and super resolution microscopy. “The goal of this is to connect information on the molecular level with what’s going on at the cellular level,” Nolen says. “The idea is to use an understanding of the precise position of molecules in cells to try to understand exactly what they’re doing. This would bridge a couple of different types of techniques and keep us at the cutting edge of microscopy in the life sciences.”

Energy and Sustainable Materials

The second cluster hire initiative plans to “Amplify Excellence in Energy and Sustainable Materials.” It is a joint initiative with the physics department and is led by cluster coordinator Jim Hutchison.

“The goal is to recruit the world’s best scientists in areas that are already strong to create a group that will be world-class,” says Assistant Professor Shannon Boettcher, one of six proposing faculty members for this cluster. “We have areas of research that are already very strong. Those areas are best poised, if you add key people who synergize in the right way, to ‘catalytically’ improve our research program.”

For the chemistry and biochemistry and physics departments, that means a proposal to “hire three faculty members targeted to fill critical capability gaps and thus catalyze significant and sustained research growth.” The new hires will be a mix of ages and experience. Boettcher says they are looking for someone who is fresh out of a postdoctoral position, someone who is a recently tenured “rising star” and one who is tenured and “an established leader in the field,” although he says these criteria could change depending on the candidates they attract. “We already have a number of very strong potential candidates identified.”

New Science Library

continued from page 2

Last October, the library received a 3-D printing machine. The printer will occupy a high-profile “Maker Space” in the new library along with an industrial sewing machine and computers with design software. This equipment will be open to students from any discipline on campus, with science, product design and architecture students anticipated as the room’s heaviest users.

Dean Walton, the science reference librarian, has used the 3-D printer in outreach for public school students. He recently taught a workshop allowing students to design rocket nose cones and print them off with the 3-D printer. The printer was also used to construct a life-size model of a sabertooth salmon, which is now housed at the UO’s Museum of Natural and Cultural History.

“The research areas are chosen to synergize with what we do now,” Boettcher says. The team wants a new faculty member who is interested in electronic devices, with a strong background in solid-state chemistry and applied physics, and who is interested in applications of new materials to thin film and nanomaterial devices. The second hire would be a computational materials chemist, i.e., someone who uses computers to predict how known materials behave and guide synthesis in the design of new materials. The third hire would be an inorganic synthetic chemist who will make new molecular and solid-state inorganic materials, guided by computation and device applications.

“The three new faculty members will have a profound effect on our research program, which has a very important role to play addressing challenges in developing sustainable materials and energy sources,” says Boettcher.

The UO is already on the leading edge of some of this research. The proposed cluster will provide institutional support for phase three of the Center for Sustainable Materials Chemistry, a \$20 million NSF grant slated for renewal in 2015. With access to the Center for Advanced Materials Characterization in Oregon, a world-class facility for materials characterization, this cluster is poised to attract the very best faculty members from around the world. In turn, these new faculty members will positively affect the problems that matter most in today’s society.

“We’re addressing what many see as the most important problems in science,” says Boettcher, “and you need teams of people with broad skill sets working in sync to do that . . . the cluster hires are thus an exciting opportunity to increase the impact of our materials chemistry research.” ■

Philanthropist Lorry I. Lokey, the namesake of the university’s integrated science facility, provided the lead gift of \$8 million, half of the funding to support construction. The other half is coming from state funds and private donations. Groundbreaking will take place in early 2015 and completion is scheduled for a year later. As far as the current library space, that is a bit up in the air. “We won’t know until phasing studies are completed in September whether we’ll be able to continue using this space during construction or not,” Bean says. While the current students may not be thrilled about that, students coming after will have a science library they can be proud of. ■

Faculty Awards



Mike Haley Appointed Noyes Professor

The UO's College of Arts and Sciences has named Michael Haley as the next Richard M. and Patricia H. Noyes Professor of Chemistry. The professorship honors a senior faculty member in any subdiscipline within the Department of Chemistry and Biochemistry for their teaching and scholarship. Haley, who stepped down this past summer after six years as department head, has been recognized previously by the UO with the Thomas F. Hermann Faculty Achievement Award for Distinguished Teaching (2002) and with a Fund for Faculty Excellence Award (2007). He was recently appointed to the joint Editorial Advisory Board for the journals *Synthesis* and *Synlett*. His group's research currently focuses on the synthesis and study of unusual pi-electron-rich molecules for potential application in organic electronics as well as on the supramolecular chemistry of arylethynyl scaffolding for anion detection and remediation.



Geri Richmond Becomes President-Elect of AAAS and Receives Pittsburgh Spectroscopy Award

Geraldine Richmond, the Presidential Chair in Science and professor of chemistry, was named president-elect of the American Association for the Advancement of Science (AAAS). Richmond will begin her three-year term as an officer and member of the Executive Committee of the AAAS Board of Directors on February 19, 2015, at the close of the 180th Annual Meeting in Chicago. Founded in 1848, AAAS is the world's largest general scientific society. AAAS publishes the journals *Science*, *Science Translational Medicine*, and *Science Signaling*.

Richmond also received the Pittsburgh Spectroscopy Award given by the Spectroscopy Society of Pittsburgh. The award was established in 1957, honoring an individual who has made outstanding contributions in the field of spectroscopy.

Richmond's research using nonlinear spectroscopy and computational methods has made many contributions to the understanding of the chemistry and physics that occurs at complex surfaces and interfaces.



Tom Stevens Named AAAS Fellow

Biochemist Tom Stevens, Philip Knight Professor, was named a fellow of the American Association for the Advancement of Science for 2014. UO associate Josh Snodgrass, a biological anthropologist, was similarly honored. The two professors are among 388 fellows chosen by their peers to receive the award, which recognizes distinguished efforts to advance science or applications. Stevens' research focuses on the process of protein sorting and membrane assembly in yeast cells.



Shannon Boettcher Receives Cottrell Scholar and RIGE Early Investigator Research Awards

Shannon Boettcher, an assistant professor of inorganic and materials chemistry and an ONAMI signature researcher, was awarded the 2014 Cottrell Scholar Award from the Research Corporation for Science Advancement (RCSA). The award is given for excellence in research as well as excellence in teaching of undergraduates.

With RCSA support, Boettcher plans to develop a research course for freshman scientists. "Our goal is to get freshmen into the lab doing research as early as possible in their university careers because we believe this encourages critical independent thinking that is essential to maximize their future success," Boettcher says. "We're designing a research immersion course and will have a pilot program in spring of 2015."

Boettcher also received the 2014 Early Investigator Research Award given by the UO Office for Research and Innovation. The award recognizes an assistant professor for excellence in research. "It acknowledges our success in securing federal funding for our work and the high-impact results we've generated in the last few years," says Boettcher. "It is an honor to receive this recognition."

Since his start in 2010, Boettcher and his group have conducted cutting-edge research on harnessing and storing solar energy. He also helped create a science laboratory program for middle school students featured in last year's newsletter.

Faculty Awards



Richard Chartoff Receives Research Excellence Award for NTTF

Richard Chartoff, director of the CAMCOR Polymer Characterization Laboratory, received the 2014 NTTF—Outstanding Accomplishment Award for Technical Research Support from the Office for Research and Innovation. The UO employs a significant number of NTTF (non-tenure-track) faculty members who are devoted primarily either to instruction or to research. The UO Research Excellence Awards are intended to recognize the significant impact and reach of UO researchers and the outstanding research activities taking place at the UO.

Chartoff's polymer program is currently focused on developing an improved condom. See page 2 for more about the research Chartoff is conducting as a grant holder from the Gates Foundation.



New Faculty Member Ramesh Jasti Receives a Dreyfus Teacher Scholar Award

Ramesh Jasti, the department's newest associate professor hire, has received a Camille Dreyfus Teacher-Scholar Award for 2014. This program, which provides an unrestricted grant of \$75,000, supports the research and teaching careers of talented young faculty members in the chemical sciences at an early stage in their careers.

Jasti received the award just as he was moving his lab to the UO from Boston University. It recognizes his research on the organic synthesis of graphitic nanomaterials ("nanohoops") with well-defined structures and properties. See page 8 for more about Jasti and his research program.



Visiting Professor Thomas Greenbowe receives ACS George C. Pimentel Award in Chemical Education

Thomas Greenbowe, a visiting professor last academic year, was honored with the George C. Pimentel Award in Chemical Education at the American Chemical Society's awards ceremony in March. The award recognizes Greenbowe's "excellent teaching, contributions, and collaborative endeavors toward the advancement and recognition of chemistry education, nationally and internationally, as a discipline." You can find out more about Greenbowe's work and award in the January 27, 2014, issue of *Chemical and Engineering News* magazine.

Greenbowe is collaborating with senior instructor Deborah Exton in updating the general chemistry curriculum. He will join the department as a senior instructor in January 2015.



Marcus and Raymer Receive I3 Award

Andrew Marcus, professor and head of the Department of Chemistry and Biochemistry, and Michael Raymer, professor of physics, received one of four awards given as part of the Incubating Interdisciplinary Initiatives (I3) award program offered by the Office for Research and Innovation to foster interdisciplinary research groups at Oregon. This program is designed to build capacity and support development of large-scale projects and programs that strategically enhance the UO's research excellence by targeting specific, large-scale external funding opportunities.

Professors Raymer and Marcus, in collaboration with an international team of physicists, chemists, and material scientists, plan to use this I3 award to address the question of whether coherence plays a significant role in electronic transport processes that occur in the bio-molecular machines responsible for energy transduction in living organisms. The award has allowed this team to acquire specialized equipment needed to generate preliminary data for a grant proposal currently being considered by the John Templeton Foundation. ■

New Faculty

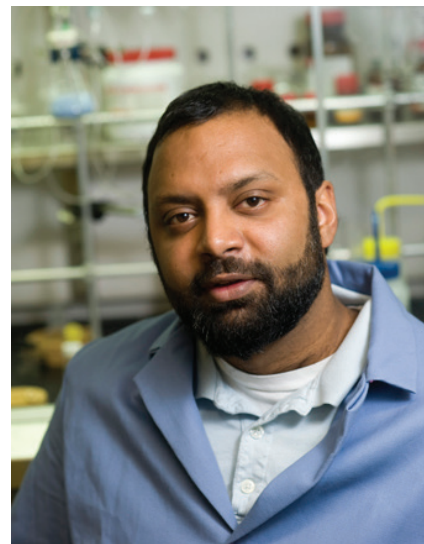
Ramesh Jasti

Ramesh Jasti has joined the department as associate professor with interests in organic, inorganic, materials, and supramolecular chemistry. He earned his BS at the University of North Carolina at Chapel Hill, and his PhD at the University of California at Irvine. Jasti and his group moved to Eugene this summer, where he joined the organic-inorganic division. He began his career at Boston University, where he pioneered the field of cycloparaphenylene chemistry, which is sometimes called carbon “nanohoops.” His group’s work is reminiscent of the cyclophane chemistry explored during the Boekelheide era in the Department.

The Jasti lab addresses challenging problems in nanoscience and materials science through high-level organic synthesis. He often chooses targets to study that have interesting properties but to date have no synthetic solution. A current central focus is carbon nanotubes, or CNTs. “CNTs are fascinating materials that could lead to faster electronics, better sensors for detection of disease, and more efficient energy generation and storage,” Jasti says. “Unfortunately, CNTs produced by today’s methods lead to a wide range of structures with differing properties.” One of the current goals of the Jasti group is to prepare short segments of a wide variety of CNTs. Once in hand, these short segments could

then in turn template the homogeneous synthesis of CNTs with a predetermined chirality. By preparing these CNT structures with atomistic precision, Jasti believes that they will be able to study these nanostructures in a completely unprecedented manner.

“We are also interested in preparing graphene structures, diamondoids, porous 3-D nanostructures, new supramolecular host-guest systems, as well as polymers with unique structural elements,” says Jasti. “We draw on inspiration from not only what currently exists, but also what theorists have predicted as interesting materials. The area of nanoscience and materials science provides an unlimited number of fascinating synthetic targets. Our imagination is truly the only limiting reagent!”
Welcome, Ramesh!



James Prell

James Prell has joined the department as an assistant professor with interests in biophysics and physical, analytical-bioanalytical, and materials chemistry. Prell grew up in Champaign, Illinois, and attended college at Washington



University in St. Louis, where he earned a BA in 2005 while majoring in chemistry, mathematics, and German, and minoring in music and religious studies. His doctoral work took place at the University of California at Berkeley, with Professor Evan Williams.

The Prell laboratory uses state-of-the-art mass spectrometry and ion mobility techniques to investigate the physical and chemical properties that govern the organization of macromolecular assemblies at the nanoscale, including those found in biological membranes. At the scale of a few nanometers, chemical interactions (from covalent bonds to hydrogen bonds and van der Waals interactions) collectively give rise to material properties, such as viscosity and phase behavior, in many condensed phase systems. Mass spectrometry and allied techniques have proved invaluable for studying the structure and organization of many kinds of matter, from simple molecules to megadalton-sized cytosolic and even membrane protein assemblies.

“I was very attracted to the unique combination of a world-class faculty, state-of-the-art nanomaterials research facilities in CAMCOR, and the high quality of life in the beautiful Willamette Valley,” says Prell. “I was also very impressed by the close interaction with both graduate and undergraduate students that is possible for faculty members here. Even on my first visit to the UO campus, I was struck by how vibrant and welcoming a place it is, and I am extremely excited to join the UO community.” Welcome, James! ■

News Briefs Faculty Promotions and Professional Activities

Andy Berglund was named interim dean of the UO Graduate School in June 2014 after serving the past year as associate dean. Berglund's research is focused on understanding how introns are recognized in the process of pre-mRNA splicing.

Kenneth Doxsee was promoted from associate vice provost to vice provost for academic affairs in September. Doxsee works nationally and internationally to bring concepts of green chemistry and sustainability to students and teachers and conducts research in the area of crystal engineering, seeking to develop methods for the rational design of solid-state organic compounds. (See page 4 for more about the new green chemistry lab in Thailand that was recently named for Doxsee.)

Deborah Exton was promoted to tenured senior instructor II. A primary focus of her work at the UO has been the development of a green general chemistry laboratory curriculum and the authoring of a general chemistry laboratory manual that focuses on green chemistry and sustainability issues.

Julie Haack has been promoted to tenured senior instructor II. She is also assistant department head and currently serves as the coordinator for UO's Green Product Design Network, which connects design and innovation to the science of sustainability.

Jim Hutchison, the Lokey-Harrington Chair in the Department of Chemistry, has been named an associate editor for the new journal *Environmental Science: Nano*, published by the Royal Society of Chemistry in the United Kingdom. The journal, whose first issue appeared in February 2014, is the first by the RSC to focus solely on environmental nanoscience and nanotechnology.

Darren Johnson has been promoted to full professor. In addition, he was recently named as coeditor in chief of the *Journal of Inclusion Phenomena and Macrocyclic Chemistry*. He was also recently appointed to the editorial advisory board of *Supramolecular Chemistry*. His research explores problems in coordination chemistry and organic synthesis using the relatively new field of supramolecular chemistry as a tool.

Brad Nolen has been promoted to associate professor with indefinite tenure. The Nolen lab is investigating the molecular basis for regulation of the cytoskeleton, the molecular framework that provides physical support for cells.

Randy Sullivan, senior instructor and lecture demonstrator at the UO since 2001, was elected Senate vice president–president-elect by the University of Oregon Senate at its meeting on May 28, 2014. Sullivan will serve as the vice president-elect in academic year 2014–15, and subsequently assume the Senate Presidency in academic year 2015–16.

Seventh International Conference on Coherent Multidimensional Spectroscopy at the UO

The Seventh International Conference on Coherent Multidimensional Spectroscopy was held on the University of Oregon campus over three days in July. Department Head Andy Marcus was the lead organizer for this event. More than 125 people attended the conference, which provided an international forum for discussion of the latest and most important results in multidimensional spectroscopy.

13th Annual Green Chemistry in Education Workshop

The workshop was held at the University of Oregon July 12 – July 17. The Green Chemistry in Education Workshop is a five-day workshop for educators in the chemical sciences interested in incorporating green or sustainable chemistry concepts into their organic chemistry curriculum and laboratories.

Guenza and Marcus Teach UO Outreach Course for Local High School Students

During the last two academic years, UO chemistry professors Marina Guenza and Andy Marcus have taught a college preparatory chemistry course for local area high school students. This 4-credit course is part of an outreach program, UO Courses for High School Students, which is run by law professor Tom Lininger (see <http://academicextension.uoregon.edu/uochss/>). The course is offered on a volunteer basis during scheduled furlough days and weekends. The average enrollment is approximately 20 students from local area high schools, including students from minority groups. Guenza and Marcus will continue to offer related introductory courses in the natural sciences through the program in coming years. ■



Newly promoted senior instructor II Deborah Exton, Austin Pliska (in background), and Gabrielle Anthony.

Student Awards

Montoya and Ritenour Receive Dixon Awards

Chemistry graduate students Leticia Montoya and Andy Ritenour received the inaugural Julie and Rocky Dixon Graduate Innovation Award from the UO Graduate School. Montoya is a member of Michael Pluth's research group. Montoya's work involves the use of small molecules to detect hydrogen sulfide in living systems. Ritenour is a member of Shannon Boettcher's research group. His goal is to develop a new low-cost synthesis technique for semiconductors that can be used in high-efficiency solar cells. He also seeks to establish a start up company that commercializes this technology.

The Dixon award is designed to support doctoral students who are interested in pursuing innovative experience that will prepare them for careers outside of academia in areas including but not limited to industry, business, and the non-profit and government sectors.

Graduate Student Teaching Excellence Awards

Seven chemistry graduate students were selected to receive the Award for Excellence in the Teaching of Chemistry. The second annual set of awards was given to Spence Bailey (Pluth group), Brandi Baldock (Hutchison group), Justin Barry (Tyler group), Michaela Burke (Boettcher group), Hillary Henthorn (Pluth group), Danica Moore, and Bryan Nell (Tyler group). Award winners were nominated by the faculty with whom they had worked during the past academic year. This honor, which was funded in part by UO alum Ron Swisher, acknowledges important contributions to the instructional mission of the department, as all of these individuals went above and beyond the normal duties of a teaching assistant.

Chemistry Major Receives Goldwater Scholarship

UO Chemistry major Loveprit Singh received a prestigious Goldwater Scholarship for 2014. The scholarship was established in 1986 by Congress to honor Senator Barry Goldwater, whose career in the armed forces and the Senate spanned 56 years. Recipients receive up to \$7,500 annually to help cover tuition, fees, books, and living expenses. Singh, a junior working in the Pluth lab, is pursuing majors in chemistry and mathematics. He also was selected as a Beckman Scholar in 2013.

Chemistry Major Selected as 2013 ACS Scholar

Jordan Mohrhardt, also in the Pluth research group, received the 2013 American Chemical Society Scholars Award for his work in materials chemistry. The ACS awards renewable scholarships to underrepresented minority students studying chemistry or chemistry-related fields.

Graduate Student Ellen Robertson Receives Award at 2014 ACS Meeting

UO chemistry and biochemistry graduate student Ellen Robertson received the American Chemical Society Division of Colloid and Surface Chemistry Student Poster Presentation Award at the 247th ACS National Meeting on March 16, in Dallas, Texas. The award is given in recognition of excellence in research, as presented during the ACS national meeting. Robertson's research in the Richmond lab studied the adsorption of polymethacrylic acid to the carbon tetrachloride-water interface. She defended her PhD thesis this past spring and is currently a postdoctoral associate at Lawrence Berkeley National Laboratory.

2014 Department Scholarship Winners

The Faith Van Nice Scholarship has been awarded to April Oleson, and the Kuntz-Swinehart Memorial Scholarship to Muhammad Khalifa. The Faith Van Nice Scholarship is dedicated to the legacy of alumna Faith Van Nice, recognizing exceptional UO undergraduate students majoring in chemistry or biochemistry.

Oleson came to the UO's Clark Honors College from Jacksonville, Oregon, four years ago, without a clear academic plan. She decided first to major in Spanish,

then as a junior added the chemistry major in part because of her experiences in the organic chemistry labs. Oleson is conducting research as part of the joint project on anion sensing between the labs of Mike Haley and Darren Johnson, and plans to earn her PhD in chemistry.

The Kuntz-Swinehart Memorial Scholarship was established by UO chemistry Class of 1959 members Gary D. Christian, Jerry D. Christian, and George H. Kennedy in memory of Professor Donald F. Swinehart, and by Abe Perlstein, Class of 1949, and Martin Ovitz in memory of Professor Adolf Henry Kuntz. Muhammad Khalifa, a biochemistry major, is working in the Haley lab in collaboration with the Berglund lab to explore small molecule therapeutics against DM1, a type of muscular dystrophy.



April Oleson and Muhammad Khalifa

Gillies and Ta Selected as 2014 Beckman Scholars

UO chemistry and biochemistry undergrads John Gillies and Phuong Kim Ta were selected to receive the prestigious Beckman Research Scholarship for academic year 2014–2015. The scholarship is awarded to outstanding sophomore or junior undergraduates to pursue undergraduate research projects in chemistry.

In Memoriam: Lloyd Dolby

Former professor Lloyd J. Dolby, 78, died on May 16, 2014, in Eugene of complications from cancer. Born in Elgin, Illinois, Dolby earned a BS in chemistry at the University of Illinois in 1956, and a PhD in chemistry at the University of California at Berkeley in 1959. Following a year as a postdoctoral fellow at the University of Wisconsin, Dolby joined the faculty at the University of Oregon, where he taught organic chemistry from 1960 until he retired in 1991. In 1980, he founded Organic Consultants, Inc., where he continued to do pharmaceutical research until 2013.

Dolby was known for his pioneering work in both organic synthesis and physical organic chemistry. He studied the mechanism of the Prins reaction, novel indole and terpene chemistry, and the synthesis of indole alkaloids. Later, he worked on the synthesis of novel phosphodiesterase inhibitors, imidazoles, and proton-pump inhibitor prodrugs.

John Gillies, a biochemistry major from Junction City, Oregon, has joined the Marcus lab. His interest lies in the study of proteins and how they interact with DNA—a field of study that has medical applications, such as cancer research.

Phuong Kim Ta was born and raised in Vietnam. She is performing research in the Dave Johnson lab, studying the design and synthesis of ferecrystals with potential applications for the semiconductor industry. ■

Dolby was an expert fisherman and was happiest in his McKenzie River drift boat rowing the local rivers or hunting with his Labrador retriever, Jasper. He taught many a fisherman and fisher woman the fine points of fishing for trout, steelhead, or salmon. He and his wife, Darlene, spent wonderful trips fishing the waters around the world. Dolby is survived by Darlene, his three daughters, Constance Vasek, Laura Dolby, and Barbara Dolby, and six grandchildren. — *Gordon Gribble, PhD '67*



Condom of the Future

continued from page 2

proposed polymer condom would be less than half the thickness of the thinnest current condoms. It will shrink with body heat in a similar manner to shrink-wrap. His condom would have a high uniform strength, good elasticity, and resistance to oxidation and deterioration. It would be able to fit many sizes, offer increased sensitivity, and be affordable.

What remains is to perfect the material and design. Chartoff and his lead postdoctoral research assistants, Casey Check and Balazs Imre, are well on their way to doing that. They have already created a prototype of a nearly transparent condom that has been shaped onto test tubes. “We are looking for one of hundreds of possible polyurethanes that will have all of the properties we want,” says Chartoff. Part of the condom’s properties involves programming the material with a shape at a certain temperature that can then be recovered upon exposure to body temperature during application, thereby improving tactility and enhancing sensitivity. This shape-memory technique involves engineering the polymer to have elastic and rigid segments in particular configurations. The elastic

segments of the proposed polymer would be biodegradable.

Chartoff’s lab received the grant at the beginning of 2014 and has a year and a half to produce their condom. Other grant holders are also working to develop improvements in condoms, although none are taking the research in the same direction as Chartoff. “After the first year, we get the opportunity to put the results from some of the other grant holders together who are working alongside us on this issue to perhaps form a larger concept going forward,” says Chartoff. The facilities that currently make condoms would need to be retrofitted to make the new polymer condoms, and a marketing team would need to craft a message that would make people worldwide want to buy and use them. ■



Chartoff group postdoc Casey Check holds two test tubes covered with a transparent prototype of the proposed condom design.

Photo by Vanessa Salvia

Alumni News from All Over

1950s

Gary Christian '59 was recently listed in the 2013 Power List, the 100 most influential analytical scientists in the world, by *The Analytical Scientist* (theanalyticalscientist.com/the-power-list-2013). He was elected an ACS fellow in 2014. Christian retired in 2006 from the University of Washington, though he remains editor in chief of the analytical chemistry journal *Talanta*, a position he has held for 25 years.

Christian wrote that he was privileged to have been invited to give a memorial seminar in honor of his 1959 UO classmate George Kennedy at the Colorado School of Mines, where Kennedy was longtime head of the Department of Chemistry and Geochemistry. Kennedy passed away suddenly in June last year.

1960s

Theodora Lee '69 received her bachelor of science in chemistry. In June 2014, Lee retired from her teaching job at the Hong Kong International School after 28 years of teaching chemistry there. "It was a most rewarding professional journey and I was especially happy to have taught 14 years of AP chemistry and produced great results to enable hundreds of students to gain college credits in chemistry," she says.

Charles Wilkins, PhD '66, distinguished professor of chemistry and biochemistry at the University of Arkansas at Fayetteville, received the 2013 American Chemical Society Analytical Chemistry

Division Award in Chemical Instrumentation. This award was conferred on September 10, 2013, during the ACS 246th National Meeting in Indianapolis, Indiana.

1970s

Howard Budweg '77 is currently working as an independent consultant assisting government-certified small businesses seeking government contracts with the US Department of Energy. [Editor's note: Howard wrote us to share his experiences and fond memories of his time at the UO chemistry department. Here is his story in his own words.]

"During the Vietnam era, I attended the University of Oregon for one year in 1966–67 prior to volunteering for the US Navy. From 1967 through 1970, I was trained as naval nuclear power plant operator nuclear water chemist radiation technician and ship's lead-scuba-diver, and served six years on a ballistic missile submarine prior to being honorably discharged and returning to the UO on the GI Bill in spring term of 1974.

"When I was nearing my graduation date for a BS in chemistry, I was recruited by the US Navy as a naval officer, engineering duty; effective date, the week after graduation, September 2, 1977.

The naval officer program "engineering duty" provided me the opportunity to attend the Naval Postgraduate School in Monterey, California, where I received my masters in mechanical engineering

in spring of 1986; from that time forward I served at several naval shipyards and in Washington, D.C. as a nuclear naval shipyard project and program manager.

"My naval career culminated in 1993. I retired as a naval Commander and received the Meritorious Service Medal from the Navy's chief of naval operations."

"I began my civilian career immediately after leaving the service (January 1994) and worked as a private contractor and a federal employee for the US Department of Energy and US Department of Defense in major industrial design, construction testing and operation project management, nuclear facility operations and defense-related nuclear waste management (retrieval, treatment, transfer and disposal). I retired in 2011 from government employment. I received the Navy Meritorious Civilian Service Award in 2008.

"This long path laid out above has one important footnote left out—the event occurred in 1974 (40 years ago) while I was sitting in the front row of a UO chemistry class for the masses and I was reading a letter I received from my liberal arts advisor informing me that I needed to choose a major, soon. [Professor Emeritus Hayes Griffiths] was giving a presentation that day, and as usual, he would walk the aisles and talk to the students. As fortune would have it, today was my day. Griffiths asked me what I was reading and I handed it to him. He asked me if I liked chemistry. I told

him I performed "nuclear water chemistry" on a nuclear submarine and found it interesting. Griffiths put his name on my letter. I became a chemistry major. The rest is history, so to speak. I never thanked Griffiths for his "blind faith," so here it is: Thank you Professor Griffiths, *YOU MADE MY DAY*—LCDR, USN (Ret.) Howard Budweg

Eddie Chang, PhD '77,

worked as acting program director for biosensing at the National Science Foundation. Chang continued his employment at NSF and is now the program director for interfacial processes and thermodynamics in the Engineering Directorate.

1980s

Brent Heimuller '89 ended up going to medical school and graduated in 1993. He has been a pediatrician in private practice in McMinnville, Oregon, since 1996. Heimuller is a clinical adjunct professor and preceptor for medical students as well as physician assistant students, and a physician trainer and instructor for newborn resuscitation. In 2013, he scored in the top 10 percent in the country on the pediatric boards. While earning his chemistry degree, Heimuller worked with Paul Engelking on his thesis on hypervalent anions.

Since graduating, **Keith Peters '88** attended OHSU and received his DMD degree in 1992 to practice dentistry. He has since been in private practice in Portland, Oregon. Most recently, Peters had a chance to get together with former swimming and diving

athletes from past years from the University of Oregon. They formally closed Leighton Pool with a farewell swim, mini-reunion, and a tour of the new athletic complex currently under construction. "It was a real treat to be the last ones in the famous Leighton Pool," Peters says, "but also very sad to see it being closed for good."

Dan Robinette '88 earned his BA in chemistry through the honors college. He completed his master of education degree at the UO in 1991. Robinette has recently completed his 26th year as a science teacher at Clackamas High School in Milwaukie, Oregon. There, he teaches physics, Advanced Placement physics-C (with calculus), and chemistry.

Hung Tran '85 received his BA in biochemistry while at the UO. He has been an Oregon Health and Science University resident in psychiatry since 1993. Tran is currently in private practice in Salem, Oregon, practicing psychiatry.

Paul Yager, PhD, '80, earned his degree studying vibrational spectroscopy of biological molecules with Warner Peticolas. In July 2013, Yager stepped down as chair of the Department of Bioengineering at the University of Washington, where he has been since 1987. "I'm not retiring, but heading back to the lab to work," Yager says. "I've got more than 200 publications, more than 35 patents, and almost 30 people in my research group." Yager is PI on two large research grants (from NIH and the Defense Advanced Research Projects Agency) developing his work on low-cost paper-based diagnostic technology for

infectious disease, where he reports that he is learning a lot about DNA and RNA amplification technologies. "Both grants require that we step out of our academic roles to see to it that the new technologies are commercialized, so I'm wrestling with new challenges all the time," he says. "Send me your best students and postdocs!"

1990s
Django Andrews '99 graduated with a chemistry BA and did undergraduate research with Paul Engelking. After graduation, he earned his PhD at the University of Colorado with Carl Lineberger. Following graduate school, Andrews obtained a law degree at the University of Colorado.

He and his family moved to the San Francisco Bay Area in 2011, where he is currently a patent attorney in the San Francisco office of Squire Patton Boggs. He practices in the areas of pharmaceuticals and medical devices and says that he would be very happy to speak with current students and alumni regarding graduate school, careers outside of science, patent law, and starting a company.

Eddy Chen '96 earned a BS in chemistry with honors. He joined Atotech Taiwan, Ltd. in October 2005, where he is currently the tech center manager.

Matthew Fry '93 has been living and working with his wife and daughters in the Boston area for nearly 12 years. He is still with Cell Signaling Technology in Beverly, Massachusetts, as director of products in the production department. As a medium-sized biotechnology company, Cell Signaling

Technology manufactures specialized antibodies for use in cancer research as well as for better understanding of biology and many cellular signaling pathways. Fry's wife also has a research lab, where she specializes in the study of ovarian cancer. Together, the couple has two small daughters (five and three years old) who are their parents' pride and joy.

Kyle Gano '94 is currently the chief of business development officer at Neurocrine Biosciences, Inc., in San Diego. His work spans marketing and partnering activities, including product and technology evaluation, in-and-out-licensing, and collaborative R&D agreements for both neurocrine- and externally-derived candidates on a worldwide and/or regional basis. Gano received his BS in chemistry from the UO, BS in biochemistry from University of Washington (1996), PhD in organic chemistry from UCLA (2000), and his MBA from the Anderson School at UCLA (2002). Kyle wrote to tell us, "I am still waiting to hear from students or alumni with an interest in the biotech or pharmaceutical industry!"

Keith Keana '91, MS '98, was promoted to lieutenant colonel in 2008. Keana and his family recently moved from DeWitt, Michigan, where he commanded the Air Force Reserve Officer Training Corps Detachment 380 at Michigan State University. They now live in Colorado Springs, Colorado, where he leads the Air Force Space Command Inspector General Operations Inspection Branch.

Kang Foon Lee '93 graduated with a BS degree in chemistry along with a minor in environmental studies. Lee

has been an analytical chemist for many years and is now the head of the analytical and quality-control department at a small molecule, organic chemical manufacturing company in Portland, Oregon.

Craig Love, MS '91, studied synthesis and characterization of novel sol-gel precursors for high-temperature oxide superconductors with Cathy Page. He is currently employed at Agilent Technologies, Inc., in Santa Clara, California, where he is senior scientist in liquid chromatography-mass spectrometry research and development.

Heidi Wierman '91 is married to Brian Daikh '90. Both are graduates of Oregon Health and Science University (MD, 1996). They reside in Portland, Maine, with their two children, ages 15 and 11. Wierman is the division director for geriatrics at Maine Medical Center and also the Geriatrics Fellowship Program director. She says that her family enjoyed watching the Civil War in Eugene in November 2013, and together they have successfully converted many Mainer's to full-fledged Oregon Ducks fans.

2000s
Andrea (Sieg) Jones, '00, MS '01, now has four children—three girls, ages seven, five, and 10 months, and a three-year-old son. Jones, her husband, and children live in Portland, Oregon, where she has her own consulting firm in project management and process improvement, specializing in manufacturing, operations, and construction industries. Jones got her start at Intel Corp., thanks, she says, to the UO master's in materials science program founded by

David Johnson. [Editor's Note: now known as the Graduate Internship Program.] During her undergraduate career at Oregon, Jones worked for two years in the lab of Cathy Page.

Lauren Huffman '01 is currently working at the Dow Chemical Company in Midland, Michigan, as a process chemist. She has been there since 2011. Huffman graduated with her PhD from the University of Wisconsin in 2010 and had a National Research Council postdoctoral fellowship at the National Institutes of Standards and Technology for a year.

Bevin Parks, MS '02, PhD '06, has been with Afton Chemical for four years and was just promoted to lead a component group in engine oils. Also, Parks regularly attends the national ACS meetings and says she would love to catch up with anyone attending!

Christopher Sweeney, MS '01, was made a partner in the Seattle office of Knobbe Martens, the third largest patent law firm in the country. Since the publication of the 2012 UO chemistry department newsletter, Sweeney was elected vice president of the Washington State Patent Law Association and continues to expand his work in biotech, pharmaceutical, and medical device patents. Sweeney was recently elected the president of the WSPLA and was also elected to the board of directors for Q-Law.

2010s

Ben Brinich '11 received his bachelor of science degree in mathematics and chemistry. His research with David Tyler's group was focused on

reactions using a film-shear reactor. Brinich is currently a space operations officer and a lieutenant in the United States Air Force working in Cape Cod, Massachusetts.

Stephen Dietrich '13 graduated *cum laude* with departmental honors in biochemistry and a minor in biology. On graduation day, his undergraduate research advisor and mentor, Mike Pluth, informed him that he had been awarded the Inorganic Chemistry Achievement Award for the 2013 graduating class. Dietrich's undergraduate research in the Pluth lab resulted in a coauthored paper in the ACS journal *Inorganic Chemistry*, describing the reactivity of hydrogen sulfide at metal phthalocyanine centers.

Since then Dietrich has been working at Sarepta Therapeutics as a chemistry associate. Sarepta Therapeutics is a biotech company that focused on making morpholino-based drug substances used to target a wide variety of diseases, including Duchenne muscular dystrophy (DMD), Ebola, Marburg flu, and dengue fever. Dietrich is currently conducting studies and writing reports to support new drug application filing for Eteplirsen, a drug used for the treatment of DMD.

Currently, Dietrich planned to take the MCAT this summer in preparation for medical school enrollment in 2015. He writes that he is also planning to use his break between the UO and medical school to travel and focus on personal goals.

Benjamin Glassy '12 is currently in a graduate program at the University of Washington working toward a PhD in

chemistry. Glassy graduated *magna cum laude* from the honors college and worked closely with Cathy Page studying materials chemistry. He received the 2012 LeRoy H. Klemm Award for Excellence in Undergraduate Chemical Research and the 2012 ACS Division of Inorganic Chemistry Undergraduate Award in Inorganic Chemistry.

Yuqing Kou '12 has been studying acupuncture and oriental medicine at the Oregon College of Oriental Medicine (OCOM) in Portland. She will graduate in September 2015 with a master's in acupuncture and Oriental medicine. She will also be earning her license in acupuncture from the State of Oregon, and plans to be practicing as soon as she receives her license.

While at the UO, Kou spent 2009–2012 conducting neuroscience research on synaptic proteins with Phil Washbourne. Kou was the recipient of the UO Presidential Scholarship, the Clarence and Lucille Dunbar Scholarship (from the College of Arts and Sciences), and the Edward C. Sargent III Scholarship (from the Clark Honors College). She says she is very excited about becoming an intern in the OCOM clinic this fall, and is very much looking forward to graduating and building her own practice.

Gina Macy '13 graduated *magna cum laude* with departmental honors. She went through the UO Graduate Internship Program in Applied Chemistry–Polymers and Coatings in the summer of 2013, and graduated with an MS this September. Macy interned at Emerald Performance Materials in Kalama, Washington, and was

just hired there full-time there as a plasticizer applications R&D technician.

Gavin Mitchson, MS '13, graduated with a degree in chemistry through the UO Graduate Internship Program in Semiconductor Device and Photovoltaic Physics and Processing. After completing the course work for the program, Mitchson accepted an internship with FEI Company in Hillsboro, Oregon, where he has been working as an R&D intern since January 2013.

Mitchson writes that he has had a great experience at FEI, but left at the end of July to return to the UO for a PhD in chemistry under the guidance of Professor Dave Johnson, with whom he worked for a term before beginning his internship at FEI.

Julianna Pendergast '13 received her BS in biochemistry, a minor in biology, and honors in chemistry, as well as a BMus in flute performance in 2013. She performed her undergraduate research in Brad Nolen's lab studying the interactions of activators of the Arp2/3 complex in actin networks.

Pendergast is now going into her second year of graduate school for a PhD in microbiology at the University of Chicago. She is working in Professor Balaji Manicassamy's lab and will be researching the intracellular trafficking of the influenza virus.

Julia Widom, PhD '13, earned her PhD in physical chemistry working in the laboratory of Andrew Marcus and closely collaborating with the laboratory of Pete von Hippel. Her work involved using ultra-

fast laser spectroscopy to study biological systems. Widom received the Rosaria Haugland Graduate Research Fellowship at the end of her first year of graduate school, which funded her second through fourth years at the UO. She also received the Peter von Hippel Graduate Scholar Award from the Institute of

Molecular Biology at the beginning of her fifth year. Widom is now a postdoctoral research fellow in the laboratory of Nils Walter at the University of Michigan. Her current work involves using single-molecule fluorescence microscopy to study RNA.

Jason D. Wilson '11, MS '12, worked closely with Dave Johnson, Roger Leonard, and members of the Chemistry Teaching Labs staff while at the UO. Within the last year, Wilson has gotten married, purchased a house, and adopted a dog.

Professionally, he spent his Graduate Internship Program

internship at Perceptive Pixel as part of the advanced development team designing and manufacturing large touch displays. After his internship, Perceptive Pixel hired him. Not long after that, the company was acquired by Microsoft. "Something new and exciting happens every day and I could not ask for a better job," Wilson says. ■

Honor Roll

Chemistry Gifts

July 1, 2013–June 30, 2014

Honor Roll of Donors:

Your Gifts, Our Thanks!

The Department of Chemistry and Biochemistry faculty, staff and students are grateful for your contributions. Private donations, because of their flexibility, are often worth much more than their dollar amount in terms of helping students and programs.

INDIVIDUALS

Boekelheide Circle

Rosaria P. Haugland
Patricia and Gary Hedden '67
Teresa and William Herzog '70
Margaret Squaires

Benefactor

Lewis Athon
Carol and Lawrence Cohn '72
James Garbe '82
O. Hayes Griffith
Karen Griffith-Hedberg '75
Marion Hill '48
Lindsey and Thomas
Marriott III '74
Janet Reis and
Wayne Solomon '63
Joan '55 and Angus Stewart '56
Pamela and Ronald Swisher '76

Patron

Mary and Bruce Branchaud
Georgette '02 and
Phillip Heyrman
Kwang and Hee-Chol Kang '82
Sue '66 and John Keana
Theodora '69 and
Kwok-Chen Lee '69

Nancy and Daniel Olson '72
Susan and Gary Van Nice

Sponsor

Victoria DeRose
Lisa Markov and
Richard Ludescher '84
Pat and Joseph Owens '76
Carolyn '68 and
Terrone Rosenberry '69
James Sprague '55
Heidi Wierman '91 and
Brian Daikh '90
Carolyn '68 and
Richard Wolf '68

Associate

Christopher Baskerville '92
Jennifer and Andy Berglund
Lin Yee Chang '85
Kay and Philip Cogswell Jr. '63
Scott Dahlberg '77
Mary Dasso '84
Paul Eckler '70
Judy and John Eiskamp '69
Richard Fancher '85
Lorena and
Thomas Farnham '75
Pamela Fischer '95
Ella '63 and Dennis Forbess '61
Benjamin Geertz '95
Thomas Hackett '69
Gudrun '71 and
James Hoobler '72
Judith Hysell
Constance and Jon Jones '89
Christy and Keith Keana '91
Daniel Koos '91
Herbert Koppermann '65
Carey and Justin Kulongoski '96
Burton Litman '66
Susan '92 and Keith Moring '93
Kathleen and Stanley Myers '86

Kimiko and
Masato Nakashima '67
Emilie and Jay Nesbitt
Lisa and Andrew Oken '84
Barbara Page '57
Wayne Parpala '52
Benjamin Paxton '00
Joanne Paxton
Peter Pomeroy '67
Sovitj Pou '87
James Roberts '77
Claibourne Smith '64
Wayne Stalick '64
Kristine '85 and
Thomas Wehe '81
Bernard White '61

Contributor

Chantal Balesdent '09
Grayson Capp '62
Cheng-Sung Chang '95
Stephen Cross '64
Bevin Daglen '05
John Despotopoulos '10
Sue and Daniel Despotopoulos
Olinda and Robert Diebel '50
Catherine Faber '86
Kathy and Glen Frerichs '77
Margaret '53 and
Bert Hinchman
David Jensen '74
Jee-Hong Kim '10
Lois Kennedy '61
Karrie and Bervil Marsh Jr. '01
Colleen and James Noble '58
Bradley Nolen
Margaret and William Nolan '65
Marilyn and Robert
Pinschmidt Jr. '71
Matthew Rail '06
Katherine '66 and
Chester Ramey '68

Teresa and David Schut '95
Pauline Seebach
Marian and
Timothy Thomas '64
Kathryn and Michael Uhler '82
Mandy Youngblood '01

CORPORATIONS and FOUNDATIONS

3M Foundation
Lewis H. Athon Living Trust
Dow Chemical Foundation
Eiskamp Family Trust
GE Foundation
Rosaria P. Haugland Foundation
Intel Foundation
Oregon Community Foundation
James W. Sprague Revocable
Living Trust

Categories of individual giving: Prince Lucien Campbell Founders Society (gifts of \$1 million and more), Boekelheide Circle (\$10,000 and more), Benefactor (\$1,000–\$9,999), Patron (\$500–\$999), Sponsor (\$250–\$499), Associate (\$100–\$249), Contributor (\$99 and less). The University of Oregon designates as President's Associates those individuals who give \$2,500 or more annually.

You can now donate directly to the Department of Chemistry and Biochemistry via a secure link on the web: <http://bit.ly/1BzKaOj>.



UNIVERSITY OF OREGON

College of Arts and Sciences

DEPARTMENT OF CHEMISTRY AND BIOCHEMISTRY

1253 University of Oregon

Eugene, Oregon 97403-1253

Nonprofit
Organization
U.S. Postage
PAID
Eugene OR
Permit No. 63

Chemistry and Biochemistry News

A publication of the University of Oregon Department of Chemistry and Biochemistry, distributed to alumni, faculty and staff members, postdoctoral fellows, students, and friends of the department.

Editor

Vanessa Salvia

Faculty Advisor

Mike Haley

Designer

Natalie Greene

Printing

Printing and Mailing Services,
University of Oregon

Visit us on Facebook (<https://www.facebook.com/pages/University-of-Oregon-Department-of-Chemistry-and-Biochemistry/146835772024689>) or at our website (chemistry.uoregon.edu) for the latest news at UO Department of Chemistry and Biochemistry!

The University of Oregon is an equal-opportunity, affirmative-action institution committed to cultural diversity and compliance with the Americans with Disabilities Act. This publication will be made available in accessible formats upon request. © 2014 University of Oregon MC1023-K10188.



Chemistry and Biochemistry ALUMNI SURVEY

UO Chemistry and Biochemistry Alumni We need your help!

As our department continues to grow in size and research scope, our ability to work at the forefront of chemical science depends greatly on the information we are able to provide with successful grant applications that allow us to take our teaching program and research labs to the next level. Your help as Chemistry or Biochemistry alumni is essential as we work to gather this information.

To that end, we are reaching out to our alumni and inviting you to participate in a short survey regarding your UO experience and career path after earning your UO degree. The survey should only take a few minutes to complete.

Survey Link:

<http://bit.ly/1pEjish>

Thank you for taking the time
to assist us in this endeavor!



Left to right: Jasti lab students Evan Darzi, Tom Sisto, and Penghao Li moving into their new research home.

Photo by Mike Haley