CAS

CHEMISTRY AND BIOCHEMISTRY NEWS

FALL 2018



Donations Enrich Graduate Student Experience





Graduate students Turner Newton and Ruth Maust, running experiments in their fume hoods in soon-to-berenovated Klamath Hall, have benefited from recent donations to the department.

he last 18 months have seen rather large donations made to the Department of Chemistry and Biochemistry that are enriching the experiences of the graduate student population. Last fall, Janet and Dennis Beetham, MS '67, made a \$1 million endowed gift to the department to honor Professor Emeritus John Keana. "The interest on the endowment will allow us to provide fellowships for one or more graduate students in the department," says department head David Tyler. "The gift will help us attract the best and brightest graduate students." Dennis Beetham worked with Professor Keana and then went on to start DB Western, a chemical engineering company that designs and builds chemical plants throughout the world.

An anonymous donor gave the department \$250,000 specifically for student recruitment. This money offers high-achieving students a \$5,000 to \$8,000 bonus. "So far, six students

have received these bonuses," says Tyler. "That's a tremendous benefit for those students, three of whom were from underrepresented groups."

A former student of Tyler's, Fei



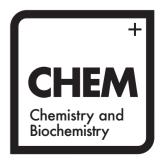
Janet and Dennis Beetham

Mao, PhD '90, donated \$100,000, which he earmarked to support graduate student travel. "That's a tremendous recruiting tool and the students very much appreciate the opportunities that it provides," says Tyler. "If you come here for graduate school you can have up to \$1,000 from this fund to attend a scientific meeting." [Editor's Note: This year, Fei Mao will receive the department's Alumni Achievement Award. Next

continued on page 2

INSIDE

- 2 Department Hires Three New Faculty Members
- 3 Department Head's Perspective
- 4 Faculty Awards and Honors
- 6 Student Awards
- 7 News Briefs
- 8 Alumni News From All Over
- 11 Chemistry Gifts
- 12 Sustainability Awards



Department Hires Three New Faculty Members

CARL BROZEK





ULIA WIDOM

his past academic year, the department hired three new faculty in alignment with the University of Oregon's push to recruit 80 to 100 new tenure-related faculty members. Starting this fall as assistant professors, chemical catalysis expert Amanda Cook and molecular materials scientist Carl Brozek join the department as part of the UO Energy and Sustainable Materials cluster, and Julia Widom joins the physical chemistry division within the department.

"Three new hires for our department is fabulous," says department head David Tyler. "Two represent expansion hires as part of the Energy and Sustainable Materials hiring cluster (provost.uoregon.edu/energy-and-sustainable-materials) which is growing the university's record of excellence in the fields of the chemistry and physics of materials. It takes a lot of funding for a research scientist to get a lab and a team up and running, so the university's commitment to three new faculty members is a big deal."

Widom earned her PhD in physical chemistry from the UO in 2013 in the lab of Andrew Marcus. She performed her postdoctoral research in the lab of Nils Walter at the University of Michigan, using single-molecule fluorescence microscopy to study how

the structures that RNA molecules fold into affect their ability to regulate gene expression. In Eugene, Widom's research will combine single-molecule and ultrafast spectroscopy to probe RNA structure and dynamics in complex macromolecular machines.

Cook earned her PhD in organic chemistry in 2015 from the University of Michigan. The Cook lab addresses problems in chemical synthesis through catalysis. Using the knowledge of solution-based organometallic reactivity, her team can develop and understand the reactivity of heterogeneous catalysts, which are prized because of their practicality. She works on the improvement and development of industrially relevant reactions, such as alkyne carbonylation.

Brozek earned his PhD from MIT after studying solar fuels technology. He was a Washington Research Foundation Innovation Postdoctoral Fellow in Clean Energy from 2015 to 2017. The Brozek lab studies systems on the nanoscale size to close the gap on knowledge of how systems we experience at the molecular and macroscopic level play out at the nanoscale size. He synthesizes soft materials and uses physical inorganic methods to study their unique redox properties to help find solutions for renewable energy generation.

Donations Enrich Graduate Student Experience

continued from page 1

year's issue will include more about his career.]

As funding priorities have shifted throughout the UO, there is less money for student recruitment. The department's recruiting weekend flies students here from all over the country, and department representatives visit other schools to acquaint students with the UO. Donations earmarked for graduate student recruiting and activities once they are here are especially useful for the long-term success of the department.

"Competition for the best and brightest

students is constantly increasing, so these gifts will give Oregon an edge over many schools," says former department head Mike Haley. "Graduate students are the lifeblood of our department and research programs, so it is imperative to get them here and then help them make the most of their time at the UO. Endowed fellowships and recruitment bonuses are great, but travel funds for graduate students to attend conferences are especially appreciated given the limited amount of these funds as part of NSF and NIH grants."

Department Head's Perspective

ne of UO president Michael Schill's goals is to increase the number of professors on campus by at least 100. The Chemistry and Biochemistry Department is benefiting from his plan by having hired three new energetic colleagues this past year. Amanda Cook and Carl Brozek were hired as part of the Energy and Sustainable Materials cluster initiative, and Julia Widom joined our physical chemistry division. Our new colleagues will help us expand our research breadth and course offerings, and they will help keep the intellectual energy in the department soaring. In addition to new faculty, we continue to attract the very best graduate students. A generous gift from an anonymous donor allows us to supplement the salaries we pay graduate students, with the result that we are attracting some remarkably gifted students. An exceptionally generous gift from Janet and Dennis Beetham, MS '67, will endow a graduate student fellowship in honor of retired professor John Keana. Overall, with the continued support of donors like you, we are able to make highly competitive—and successful—offers to graduate student applicants.

I ended my column in last year's newsletter by inviting you to visit the department and see all the exciting things that are happening. As I described last year, there are numerous laboratory renovations going on in Klamath Hall, we have new colleagues and staff members, and we are putting time and energy into keeping our curriculum modern and relevant. Those changes are all still ongoing and taking shape. You may find particularly interesting our plans to push forward with a proposal to the state for a new major in applied chemistry. The plan is to create a contemporary major within the department that will provide students with specialized training in chemistry-



optimistic."Department Head
David Tyler

"Overall. the mood

in the department

continues to be

enthusiastic and

related fields that industry will find attractive. A major emphasis of the program will be on off-campus experiences (co-ops, internships, study abroad, and so on). The plan is to eventually have applied chemistry degrees at the bachelor's, master's, and PhD levels.

Overall, the mood in the department continues to be enthusiastic and optimistic. We have great new hires, commitments from the administration for even more modern laboratories in new or soon-to-be remodeled spaces, and a modern curriculum that prepares students to make their mark on the world. I repeat my invitation from last year: Please stop by and see these changes for yourself sometime soon. We'd love to see you.

Best wishes for a pleasant and productive year!

David Tyler



Faculty Awards and Honors

DEBORAH EXTON



DARREN JOHNSON





Exton Receives Tykeson Teaching Award

Senior Instructor **Deborah Exton** was one of three recipients of this year's Tykeson Teaching Award. The awards are presented yearly to one faculty member in each CAS division: the humanities, social sciences, and natural sciences. Recipients are recognized for their excellence in teaching and receive a certificate and \$2,500. This year, the awards recognized faculty members who teach large lecture classes with more than 100 students.

Exton has been at the UO since 1993 and is currently the leader of the general chemistry sequence. She has previously received the UO Williams Fellowship for Distinguished Undergraduate Teaching in 2001 and the American Chemical Society CEI Award for Incorporating Sustainability into Chemical Education in 2011.

Johnson Receives the Bradshaw and Holzapfel Research **Professorship in Transformational Science and Mathematics**

Darren Johnson, professor of chemistry and director of the Materials Science Institute, was named as the first recipient of the Bradshaw and Holzapfel Research Professorship in Transformational Science and Mathematics. UO Biologists William Bradshaw and Christina Holzapfel, who manage a world-class genetics lab in the UO Institute of Ecology and Evolution, established the \$2 million endowed professorship that rotates every five years between the departments of biology, chemistry, physics, math, and computer science.

At the UO since 2003, Johnson has previously won a 2006 NSF CAREER Award, a 2006 Research Corporation Cottrell Scholar Award, and a 2012 University of Oregon Fund for Faculty Members Excellence Award. Johnson's research is focused on molecules that can detect and bind to contaminants to remove them from the environment. His work has been useful in waterfiltration techniques and in monitoring nitrate levels produced by fertilizers on agricultural fields.

"I am humbled to be honored as the first of what will become a growing community of endowed professors in transformational science and mathematics," Johnson says. "I am thankful for the incredible generosity and vision of Chris Holzapfel and Bill Bradshaw in setting up this endowment to facilitate UO research efforts at the intersection of fundamental and applied science and math."

Prell and Wong Receive NSF CAREER Awards

Jim Prell and Cathy Wong, both assistant professors in the physical chemistry division, are two of five UO faculty members to receive prestigious National Science Foundation CAREER Awards this past academic year. This award is given to early career faculty members that the NSF believes will become leaders in their field, to fund research and education for five consecutive years.

Wong, who joined UO in 2015, uses a specialized laser technique to study self-assembling materials and materials formation when they form too quickly for traditional measurement methods. She is the faculty advisor of the Community for Minorities in Science (CMiS; pages. uoregon.edu/cmis) student group.

Prell, who joined UO in 2014, uses mass spectrometry to measure ion mobility, ion separations, and electron transfer dissociation in complex biomolecular molecules. In addition to the CAREER award, Prell also received a 2018 American Society for Mass Spectrometry Research Award. The \$35,000 annual award promotes academic research by young scientists in mass spectrometry. Prell is the faculty advisor of the Society for the Advancement of Chicanos/ Hispanics, and Native Americans (SACNAS; uosacnas.uoregon.edu) student group.

Faculty Awards and Honors

Richmond Receives Linus Pauling Medal

Geraldine Richmond, one of Oregon's most honored professors since joining the faculty in 1985, has received the 2018 Linus Pauling Medal. The award honors Richmond for her research studying oil and water and water and air interfaces. Her research has contributed greatly to the understanding of events that impact the environment such as oil spills. Richmond is the UO Presidential Chair in Science and Professor of Chemistry and she has been recognized with numerous awards including the Priestley Medal in 2018, the 2013 National Medal of Science awarded by President Obama, the 2013 Charles L. Parsons Award, and many others. The Linus Pauling Medal has been awarded annually since 1966 by the Oregon, Portland, and Puget Sound Sections of the American Chemical Society in recognition of outstanding achievement in chemistry. The medal's namesake, Pauling, was born in Portland, Oregon, and is the only person to have been awarded two undivided Nobel prizes.

Richmond was on the cover of Volume 96, Issue 12 of *Chemical and Engineering News* earlier this spring, honoring her for the Priestley Medal (on the cover of last year's newsletter). The magazine profiled Richmond's pioneering work on environmental interfaces, her relationships with the students in her lab, and her work with COACh supporting women in science. Read the article at *cen.acs.org/articles/96/i12/meet-geraldine-richmond-2018-priestley-medalist.html*.



The UO announced in June that **Ramesh Jasti** and **Ken Prehoda** would each receive a Fund for Faculty Excellence Award. Jasti, associate professor and associate director of the Materials Science Institute, and Prehoda, professor and director of the Institute of Molecular Biology, were two of 15 UO faculty members named to receive the award in 2018, bringing the total number of FFE recipients in the department to 12. Philanthropist Lorry Lokey established the award in 2006, which recognizes and highlights world-class teaching and research. The salary supplements ensure that the UO faculty who are operating at the highest levels in their field are honored and recognized by the university community.

UO Chemical Synthesis Group Receives the Inaugural CURE Mentor Award

The department's Chemical Synthesis group was named as one of three 2018 recipients of the inaugural University of Oregon Center for Undergraduate Research and Engagement (CURE, cure.uoregon.edu) Mentor Awards. The new award recognizes faculty members who go above and beyond in engaging with students and their undergraduate research, excellence in mentoring, time spent, and more.

The Chemical Synthesis group is a team composed of professors Michael Haley, David Johnson, Vickie DeRose, Michael Pluth, Ramesh Jasti, Darren Johnson, Ken Doxsee, and David Tyler. The group has more than 163 years of combined knowledge as chemistry professors, having mentored more than 500 undergraduate researchers with 221 publications with undergraduates listed as co-authors. The award, along with a \$2,500 grant, was presented at a ceremony in May.



GERALDINE RICHMOND



RAMESH JASTI



KEN PREHODA

Student Awards



Maust and Shear Receive NSF Graduate Fellowships

Graduate students Ruth Maust and Trevor Shear have been chosen to receive Graduate Research Fellowships from the National Science Foundation, An additional seven UO students received honorable mentions. As NSF's most prestigious graduate student award, the fellowship supports students for three years of study. Students receive a living stipend, tuition waivers, and travel funds. The fellowship is highly competitive, with only 2,000 being awarded each year to graduate students across the USA. Maust is pursuing a doctorate in the Ramesh Jasti lab working on carbon nanohoops as polymer precursors, while Shear is in the Darren Johnson lab studying the self-assembly of macrocyclic and 3D cages.



TREVOR SHEAR

ORREST LASKOWSKI



Laskowski Receives UO Dissertation Research Award

Forrest Laskowski, a fourth-year graduate student in the Shannon Boettcher lab, has received a UO Dissertation Research Fellowship. The fellowship provides financial support to outstanding doctoral students as they work to complete their dissertations. Laskowski's research focuses on the photoelectrochemical cell—a device that stores energy from sunlight via a process known as "water splitting."



ALEXI OVERLAND



Fargher Receives UO Dixon Graduate Student Innovation Award

Hazel Fargher, a third-year graduate student working jointly with Darren Johnson and Mike Haley, has received a Julie and Rocky Dixon Graduate Student Innovation Award. The Dixon award is designed to support doctoral students who are interested in pursuing innovative experiences that will prepare them for careers outside of academia in areas including industry, business, and the nonprofit and government sectors. Fargher's research focuses on the design and synthesis of molecular hosts for the sensing and selective binding of biologically and environmentally relevant anionic guests.

Van Nice and Kuntz-Swinehardt Scholarship Recipients

The 2018 recipients of the Van Nice and Kuntz-Swinehardt scholarship respectively are **Alexi Overland** and **Dylan Bardgett**. Overland is a chemistry and environmental science double major originally from Bend, Oregon. A sophomore, she works in the research group of David Tyler making chiral phosphine ligands for catalysis. Bardgett is a junior chemistry major from Eugene. He is working in the lab of David Johnson using x-ray reflectance spectroscopy to characterize thin film materials. ■

News Briefs

Koscho and Sullivan Promoted to Senior Instructor II

Mike Koscho, senior instructor and undergraduate advisor, and Randy Sullivan, lecture demonstrator and senior instructor, have both been promoted to senior instructor level II. Koscho, at the UO since 2006, received his PhD at the University of Illinois in 1999. Sullivan, at the UO since 2001, received his MS from the University of North Texas in 1989.

Nolen Lab Discovers Metastasis Machinery

Associate professor **Brad Nolen** and his team have been studying cell motility in an attempt to understand how cells, whether the body's own immune cells or cancerous cells, move through organs, skin, or bones. A paper describing the lab's discoveries was published in the February 13 issue of the *Proceedings of* the National Academy of Sciences. The research concluded that a cell protein called actin can produce branch-like protrusions which can move cells forward. Understanding how this branching activity is turned on in malignant cells could propel development of new drugs to target cancer. Theoretically, drugs that block or prevent the branching could stop cancer cell metastasis.

Construction Continues on Knight Campus

A March 2 ceremony formally kicked off construction on the UO Knight Campus for Accelerating Scientific Impact. President Michael Schill presided over a groundbreaking attended by dozens of state and local dignitaries, university officials, and faculty members. At the event, Schill signaled workers to tear down a former office building on what will be the future site of the campus. The first phase of the project includes a \$225 million, 160,000-square-foot structure, which will be built on the north side of Franklin Boulevard between Onyx Street and Riverfront Parkway. It is scheduled to open in early 2020.

Klamath Renovation Update

Planning for the nearly total renovation of the third floor of Klamath Hall is done, and construction is scheduled to begin January 2019. The \$20+ million renovation project includes state-of-the-art synthetic chemistry labs on the third floor with faculty offices adjacent to the renovated space. Construction will occur in two phases with completion targeted for summer 2020.

WGS on Cover of Oregon Quarterly

Oregon Quarterly featured UO's Women in Graduate Science (blogs.uoregon.edu/uowgs/) on the cover of the April issue. WGS was founded in 2005 by then-graduate student Sarah Staggs Wisser with the intent to create a support network for women in the sciences and to institute a curriculum and awareness for future women in science. The 150-member UO WGS group, which has been featured several times in this newsletter, forms one of the largest graduate student women's groups in the country. Read the article at around.uoregon .edu/og/perfect-chemistry.



IKE KOSCHI



DY SULLIVAN



RAD NOLEN

Alumni News From All Over

2010s

Jeneva Anderson, PhD Biochemistry

'15, researched bacterial molecular biology and biochemistry in Karen Guillemin's lab. After graduating. Anderson took an instructor and undergraduate academic advisor position in the microbiology department at Oregon State University for two years. She started her current position as the survey biology lead coordinator and faculty instructor at Lane Community College in fall of 2017. Anderson primarily teaches and oversees the curriculum/assessment for LCC's 100-level non-majors biology sequence. She is working toward incorporating course-based research into the curriculum, inspired by her time as an adjunct instructor at the UO. "I hope to strengthen connections and collaborations between the students here at LCC with research faculty at nearby institutions," Anderson says.

Brandi L. Baldock, PhD '16, studied nanomaterials and nanoparticle-DNA interactions in the lab of Jim Hutchison. During her postdoctoral fellowship with Thomas Greenbowe and Deborah Exton at the UO she studied interactive teaching strategies. Her current position is assistant professor of chemistry at Merrimack College in Massachusetts. Baldock was recently awarded the 2018 Davis Educational Foundation Grant at Merrimack.

Heather A. Bankowski, MS '12, worked with semiconductors for seven years at ATMI, an Entegris Company. She is currently working with fuel cells at Doosan Fuel Cell America.

Erik Burlingame, BS Biochemistry '16, MS Biology '17, focused on bioinformatics while at the UO. He is currently pursuing his PhD in neuroscience at Oregon Health and Science University, focusing on the structural biology of ion channels. As a biochemistry undergraduate he studied the molecular bases for synapse formation during development in the Washbourne lab. In 2018 Burlingame's recent publication includes "SHIFT: Speedy Histopathologicalto-ImmunoFluorescent Translation of Whole Slide Images Using Conditional Generative Adversarial Networks" in Proc. SPIE 10581, (2018).

Dana Garves, BS '10, was recently featured in Volume 96, Issue 10 of Chemical and Engineering News for her work on brewing chemistry. As an undergraduate, Garves appreciated the principals of green chemistry that the department is known for. After graduating, she got a job as a QC chemist at a water quality lab, but didn't enjoy it. She took a job at Ninkasi, a local Eugene brewery. She built the brewery's chemistry and sensory labs for four years, then started her own company, Oregon BrewLab, in her garage. She now offers affordable and fast alcohol percentage testing for numerous clients.

Anthony McCloud, BS Biochemistry '13. BS Human Physiology '14. went on to receive his MS in medical sciences in 2018 from Western University of Health Sciences. In summer 2018 McCloud started medical school at WUHS College of Osteopathic Medicine of the Pacific. While at the UO he studied inorganic chemistry with Cathy Page, working on standardization processes of inorganic thin films jointly with

OSU. From 2017 to the present he is performing neuroscience research with Michel Baudry at WUHS, working on further characterizing Calpain-2 and its physiological role in the brain. McCloud is president of Pomona Health Career Ladder, an organization that educates minority K-12 students in various health science topics in the hopes of increasing diversity within the health professions. Prior to re-entering academia, he worked for four years as a banker at Pentagon Federal Credit Union.

Keenan Woods. PhD '17. worked in the Cathy Page group developing aqueous solution routes to metal oxide thin films for electronic technologies. Woods published extensively in peerreviewed academic journals and was heavily involved in STEM outreach, serving as an informal science education fellow for the UO, and as a science communication fellow for the Oregon Museum of Science and Industry (OMSI). After graduating Woods joined Applied Materials' Chemistry Center of Excellence team in Santa Clara, California. He has enjoyed living within easy driving distance of his siblings and is thrilled to marry Jacklyn Whitehead in January 2019.

2000s

Gary Succaw, PhD '04, was awarded tenure and promotion to full professor of chemistry at Montana State University-Northern. Succaw recently worked with another department on campus to develop a reusable solid catalyst for oxidation of alcohols and alkenes based on results from research in China. The catalyst they obtained did not match the properties the researcher's recorded, but it still worked. He successfully used the catalyst in his undergraduate organic lab. "It has been a busy year!" he writes.

Derrick Thoma, BS '08, is currently the operations manager of Hop Valley Brewing Co. in Eugene. Since college,

he was a winemaker at King Estate and achieved level 1 certification in the Court of Master Sommeliers. He currently holds a seat as the No. 1 industry advocate on the Eugene Toxic Chemicals Community Right to Know board.

finished his residency in anesthesiology at the University of Washington in June 2018. In August 2018 he plans to return to Eugene as an anesthesiologist at

Brian Truong, BA Biochemistry '07,

2018. In August 2018 he plans to return to Eugene as an anesthesiologist at Northwest Anesthesia Physicians. In his leisure time he enjoys food, tennis, travel, technology, and photography.

lianfei (leffrey) Zhao, PhD '07, who studied under Diane Hawley, is now deputy editor of NEJM Medical Frontier (the Chinese edition of the New England Journal of Medicine), based in Beijing, China. He is responsible for editorial operation, outreach, and strategic planning. As the first biology editor of Nature Research working in China, he fostered close relationships with the Chinese life sciences community. While at the UO, his research interest was focused on the transcription regulation in budding yeast. His postdoctoral training in the US National Cancer Institute was centered on the epigenetic regulation of gene expression.

1990s

Brian Gu, BA '93, went on to earn a PhD from the University of Washington and an MBA from Yale. In March, Gu was appointed vice chairman and president of XPEND Motors, a leading Chinese electric vehicle company. Before that Gu joined J.P. Morgan in 2004 and served as chairman of Asia Pacific Investment Banking. From 1998 to 2004 Gu worked in the global M&A and global healthcare practice of Lehman Brothers in New York. Prior to his Wall Street career, Gu was a senior research scientist at the University of Washington Medical School.

1980s

Michael Comb, PhD '84, is the founder, president, and chief executive officer of Cell Signaling Technology. Earlier this year Comb was chosen to receive a CiteAb Lifetime Achievement Award. The award recognizes noteworthy dedication and significant contribution to the research reagent industry. CST is a leading provider of antibodies, kits, and services for researchers working to understand the molecular and cellular processes of disease.

Mary Dasso, BA '84, studied chemistry with Peter von Hippel, then went on to the PhD biochemistry program at the University of Cambridge. She became a senior staff fellow at the National

Institutes of Health in the Laboratory of Molecular Embryology and went on to become a tenured investigator and head of the Cell Cycle Regulation section in the Division of Molecular and Cellular Biology at NIH. Since 2015 she has been associate scientific director for administration and budget, Division of Intramural Research, at NIH.

Ruskin J. Gould, BA '85, now known as Reverend Hugh Gould, writes that since his 2015 update he has become the Buddhist chaplain for Newcastle University in northern England, about an hour's drive from the Throssel Hole Buddhist Abbey monastery where he has been living. He is a volunteer chaplain who offers spiritual guidance, meditation, and Buddhist teaching at the university for a full day every two weeks.



Professor Emeritus **Hayes Griffith** celebrated his 80th birthday with a climb of California's Mt. Whitney, the highest mountain in the contiguous states at 14,508 feet. Here he stands in front of the Smithsonian hut on the summit on August 7, 2018. He climbed solo with backup from his wife, Karen Griffith-Hedberg, who hiked to a high camp with him. Griffith plans to return to the UO in 2020–21 for the Inaugural Harden and Sophia McConnell Lecture in Chemistry. Hayes and Karen finished funding this endowment last year with some help from Sophia McConnell. Plans are for a biennial lectureship around the theme of broad applications of physical chemistry.

1970s

Dan Olson, PhD '72, studied organic electrochemistry with LeRoy H. Klemm. He did postdoctoral work on synthetic organic chemistry at The Ohio State University with Melvin S. Newman. Olson joined General Electric's Research and Development Center in Schenectady, New York, after finishing his postdoc, intending to spend two years gaining experience before returning to Oregon. But GE's Research Center turned out to be such a fascinating place to work that two years turned into more than 30.

Olson spent 10 years managing research on high performance polymers and bioremediation research, but most of his time was spent doing research and development on organic coatings. Two big projects were for the development of glass replacements such as Margard Coated Sheet as well as the first viable plastic headlamp lenses, which appeared on 1984 Lincoln Continentals.

Olson retired from GE with more than 50 US patents and around 20 publications and now lives in Bend, Oregon. Three years ago he stepped out of retirement to work as a visiting senior scientist and consultant for Switch Materials in Vancouver, BC, to mentor and help develop photochromic/ electrochromic coatings for automotive applications. He is a past member of the UO's CAS advisory board and currently serves as a board director and a regular volunteer at The Giving Plate, a food pantry in Bend. His daughter is a junior at the UO majoring in psychology.

lames L. Roberts, PhD '77, studied with Ed Herbert. He was Chair of Neuroscience at the Mt. Sinai School of Medicine in New York City for 16 years. He spent his last 10 years teaching at Trinity University in San Antonio, Texas, where he will retire in 2018. "It's been a great run but now I will go back to full time at the bench studying gut microbiome effects on the brain in males and females," Roberts writes. "I

am extremely grateful for the education I received at Oregon and I rate my four years in Eugene as four of the best years of my life! Thank you U of O!"

1960s

Catherine (Katie) Smith, BS '69, went to the University of Arizona College of Medicine for a PhD in biochemistry, finishing in 1976. She worked in research and development then clinical research for several biotech companies in Chicago, Boston, and San Diego, where she now lives. She started her own biotech consulting company about seven years ago and retired in 2017. She's now traveling and volunteering at the San Diego Zoo.

Celeste Roper, BA '62, has been enjoying retirement for 15 years. "But who is counting!" she writes.

Bob Solomon, PhD '60, studied under Terrell Hill during his PhD work and also as a postdoc. He taught at Temple University from 1960 to 2000 and chaired the department for several years. Solomon did some consulting for several agencies including the Nuclear Regulatory Commission. Now, he says, he mostly "bums around" on a 49-foot boat. He takes care of his large house in Philadelphia near his children and grandchildren. He loves to hear about retired faculty and former students through the department's newsletter.

1950s

Gary Christian, BS '59, is emeritus professor of chemistry at the University of Washington. Last year he turned 80, and he and his wife of 56 years, Sue, became great grandparents. His twin brother, Jerry, also a 1959 chemistry alum (see below), celebrated their birthdays together. He was honored for his 80th birthday at the International Conference on Flow Injection Analysis in St. Petersburg, Russia (icfia2017.org/80thbirthday-of-prof-a-christian1) as well as by a special issue of the journal Talanta (doi. org/10.1016/j.talanta.2017.10.047), which Christian continues to edit. He received the 2017 Santa Clara Valley Section of the ACS Shirley B. Radding Award.

Jerry Christian, BS '59, retired in 2001 from Idaho National Laboratory as a scientific fellow, where he specialized in nuclear fuel processing and highlevel radioactive waste management. He was responsible for developing and implementing a process for recovery of enriched uranium from spent naval nuclear fuels. Christian is currently owner of Electrode Specialties Company, which manufactures electrodes for amperometric measurement of HF in acid solutions. Christian received the inaugural Distinguished Scientist/ Engineer Award of the Idaho Academy of Science and an American Nuclear Society Annual Special Award, Favorite UO chemistry teachers were Don Swinehart, Richard Noyes, and Terrell Hill. His twin brother, Gary Christian, is also a 1959 UO graduate (see above).

Jochanan Stenesh, BS '53, followed up his UO education with studies at Cornell University and a PhD in biochemistry in 1958 from the University of California, Berkeley. He was a research associate from 1958 to 1960 at the Weizmann Institute of Science in Israel, where he studied carnosine-anserine synthetase of muscle. From 1960 to 1963 Stenesh was senior research associate at Purdue University, where he studied the stability of flagella from mesophilic and thermophilic bacteria. From 1963 to 1966 he was assistant professor of chemistry at Western Michigan University, studying DNA, RNA, and protein synthesis in mesophilic and thermophilic bacteria. He was promoted to associate professor of chemistry, then professor of chemistry, and as of 1990 he is professor of chemistry emeritus. Over his career he published many scientific papers, books, and book chapters.

Honor Roll Chemistry Gifts, July 1, 2017, to June 30, 2018

Your Gifts, Our Thanks!

he 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

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PhD '04

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Burton Litman, PhD '66
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AMES HUTCHISON

Haack and Hutchison Win UO Sustainability Awards

Julie Haack, senior instructor and assistant department head, and **Jim Hutchison**, Lokey-Harrington Chair of Chemistry, each won a UO Sustainability Award for 2018. The University of Oregon has long been known for being on the forefront of sustainability, and in 2015 the UO Office of Sustainability launched its award program to recognize individuals who lead the culture of sustainability.

Haack received the Excellence in Teaching Award, which recognizes faculty members who have developed curriculum and pedagogy that reinforce and advance the principles of sustainability through course design and instruction. She was selected for her national leadership in the teaching of green chemistry, her multidisciplinary partners across the UO's schools and colleges, and her development of courses and workshops with a focus on green chemistry and life cycle analysis. A video of Haack discussing this award can be found at <code>youtu.be/_QRVh5morDA</code>.

Hutchison received the Research Innovation Award, which recognizes innovations developed as part of UO research and are now offered as commercially available products or services that improve sustainability. DeFUNKify laundry products were developed as a result of research discoveries made in the Hutchison lab and thus exemplify this type of innovation. A video of Hutchison discussing this award can be found at *youtube.com/watch?v=jDsAXNBJ1HU*. ■