

# Remodel of Klamath Hall Synthetic Labs Underway



The future Jasti Lab under construction in summer 2019 (left), with Ramesh Jasti in the student bullpen (right).

The renovations of the synthetic laboratories on the third floor of Klamath Hall kicked off in December 2018, and work on Phase I is nearing completion. The move-in date for the research groups of Ramesh Jasti, Darren Johnson, and Michael Pluth is mid-December 2019. Once the moves are complete, Phase II will then kick off in January 2020 with completion scheduled for late summer 2020.

As decades pass, curriculum in schools typically gets modernized, but Klamath Hall and much of its infrastructure were firmly stuck in the 1960s, the era in which Klamath was built. The long overdue upgrades will provide more collaborative learning spaces and improve safety and lines of sight in the labs. A new generation of graduate and undergraduate students will be able to enjoy working and learning in a remodeled third floor.

“This is a huge improvement in lab and

safety infrastructure and will help in the recruitment of talented students and faculty,” says Pluth. “Importantly, it will give students access to state-of-the-art synthetic lab space that not only will benefit their training when they are at the UO, but also will help to launch their careers after graduation.”

Although first mentioned in the 2016 newsletter, planning took longer than anticipated. The proposed new fourth floor renovation proved to be too costly because it would have required moving much of the equipment already on the Klamath roof, which also would have led to disruptions to research groups throughout the building and not just the synthesis groups. Instead, this meant going back to the drawing board to discuss what could be done just to the third floor and then obtaining a more realistic cost estimate.

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## Department Head's Perspective

**“There is nothing like new laboratories to attract the very best graduate students.”**

*Department Head  
David Tyler*



**I**t's great to have young colleagues! Over the past two years, we have hired five new faculty in the department, and they are already making their presence felt. For example, we had the best recruiting year ever for our graduate program. Thirty-nine students accepted our offers to enroll in our graduate program, a sizeable increase from our typical entering class of about 27 students. The zest of our new young colleagues on the admissions committee and their enthusiasm during our “recruiting weekend,” when prospective students fly out to visit, no doubt played a large part in attracting our bumper crop of entering students. Of course, there is also nothing like new laboratories to attract the very best graduate students, and you can read about the remarkable transformation of the synthetic labs in Klamath Hall in this issue. In addition, several of the biochemistry research

labs have recently been completely remodeled. And, if you haven't been in the basement of Klamath Hall recently, you will be amazed at the state-of-the-art remodeled labs and student spaces for our new physical chemistry colleagues.

In addition to updating our research facilities, we are continually updating our curriculum to stay relevant. For example, many of our courses are being revised to emphasize more problem-solving and teamwork skills. I cite as an example our spring term general chemistry lab class for majors in which students work in a professor's research group under the supervision of a graduate student. Another example is the new master's-level internship program on sensors taught by our faculty in association with the Knight Campus. Speaking of the Knight Campus, I am pleased to note the strong, mutually beneficial collaborative relationship that is developing between our department and the Knight Campus. Four of their new faculty are affiliates of our department, and our students are welcome to join their research groups.

I'll conclude by saying that the mood in the department continues to be upbeat and optimistic. We have made some great new hires, we have modern laboratories in new or soon-to-be-completed remodeled spaces, and we have a modern curriculum that prepares students to make their mark on the world. I repeat the invitation that I make every 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*

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# Faculty Awards and Honors

## Marina Guenza named AAAS fellow

**Marina Guenza** was named as one of the 416 newly elected fellows (47 for chemistry) of the American Association for the Advancement of Science. She joins fellow chemistry recipients Vickie DeRose, Mike Haley, David Tyler, and Geri Richmond, among others. A physical chemistry professor since 2002, Guenza's research focuses on the development of novel theoretical approaches and computational methods to predict the properties of complex macromolecular systems, such as synthetic polymers, DNAs, and proteins.

Among her other awards, she is an elected fellow of the American Physical Society for Polymer Physics (2011), a Member-at-Large for the Executive Committee of the American Chemical Society's Physical Chemistry Division, the recipient of the UO the Fund for Faculty Excellence Award (2015) and of the UO Innovation Award (2015). She is a member of the Institute of Theoretical Science, the Materials Science Institute, and an affiliate of the Knight Campus.



MARINA GUENZA

## Brad Nolen receives Fund for Faculty Excellence Award

Fifteen UO faculty members received the 2019 Fund for Faculty Excellence Award, including our own **Brad Nolen**, associate professor of chemistry and biochemistry. Nolen, at the UO since 2008, is investigating the molecular framework that provides physical support for cells, and in particular, how processes such as changing cell shape, motility, uptake, and release of materials and cell division are regulated. Lorry I. Lokey established the Fund for Faculty Excellence in 2006 with the intention of recognizing and supporting the UO's world-class researchers and teachers.



BRAD NOLEN

## Deborah Exton receives Distinguished Teaching Award

**Deborah Exton** is one of 10 faculty members in 2019 to receive the Distinguished Teaching Award, the UO's highest teaching honor. As a senior instructor II, Exton became a research scientist, then realized her passion truly lay in sharing knowledge with others in higher education. At Oregon since 1993, Exton has taught general chemistry and general chemistry labs to freshmen for more than 25 years. She has received numerous awards and we are grateful for her years of enthusiastic dedication to teaching our beginning students.



DEBORAH EXTON

## Jim Hutchison receives 2019 Outstanding Research Award

**Jim Hutchison**, at Oregon since 1994, received the outstanding career award along with sociologist John Bellamy Foster at a ceremony in May. The award is given to tenured associate or full professors with a history of distinguished scholarship, external recognition, and national and international prominence in their field of research. Hutchison, the Lokey-Harrington Chair in Chemistry, is well known for his work on green and sustainable chemistry and nanotechnology. He is focused on discovering new materials with properties that can be optimized for a wide range of applications such as electronic and optical devices, catalysts, and sensors.



JIM HUTCHISON

## Julie Haack selected as Williams Fellow

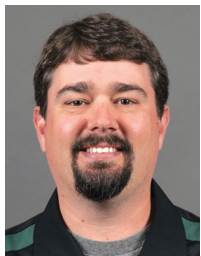
The Williams Council named **Julie Haack**, assistant department head and senior instructor II, a Williams Fellow. The Tom and Carol Williams Fund for Undergraduate Education was established in 1999 to provide financial support for high-quality educational experiences for undergraduate students at the University of Oregon. Haack co-leads (with Jim Hutchison) a First-Year Interest Group on the chemistry of skiing. She is also active in the Teaching Engagement Program (tep.



JULIE HAACK

## Faculty Awards and Honors

DARREN JOHNSON



MICHAEL PLUTH



uoregon.edu) and the Science Literacy Program (scilit.uoregon.edu), both of which allow her to implement new teaching practices into her classes to engage science and non-science majors.

### Darren Johnson selected for National Academy of Inventors

**Darren Johnson**, at the UO since 2003, is now in the first class of senior members in the National Academy of Inventors (NAI). The NAI fellows program highlights prolific academic inventors who have made a tangible impact on quality of life, economic development, and the welfare of society. In 2018, Johnson was named the first Bradshaw and Holzapfel Research Professor in Transformational Science and Mathematics at the University of Oregon. He has developed a water purification system, and also developed porous materials that remove hazardous liquids or gases from the environment. His inventive efforts also were part of SupraSensor Technologies, which creates sensors for precision fertilization and includes chemistry colleague Mike Haley. SupraSensor was acquired by The Climate Corp., a subsidiary of Bayer, in 2016.

### Michael Pluth receives Oregon Medical Research Foundation's Richard T. Jones New Investigator Award

**Michael Pluth**, at Oregon since 2010, received the Oregon Medical Research Foundation's Richard T. Jones New Investigator Award for his work developing new technologies for biomedical research. The award recognizes Oregon researchers who are early in their careers but who show exceptional promise in biomedical research. Pluth's research uses chemistry as a tool to understand the biological functions of small sulfur-containing molecules, which play important roles in different diseases, including diabetes, hypertension, inflammation, and neurodegeneration. He recently teamed up with UO chemist Ramesh Jasti to begin developing a new class of fluorescent dyes that could expand the real-time view of cell activity in medical diagnostics. The project is now headed into testing for possible use in medical imaging in a joint project with OHSU. ■

## In Memoriam—Ralph Barnhard



**Ralph Joseph Barnhard,**  
1937–2019

**O**n February 23, 2019, the UO community lost Senior Instructor Emeritus Ralph Barnhard, who retired in 2000. He earned his master's degree in chemistry at the UO in 1965 and joined the department's teaching faculty in 1966. Over the following 34 years, he taught thousands of chemistry students and served as assistant department head. Ralph was honored in April 2011 when the department dedicated the new Chemistry Resource Center in his name.

Ralph Joseph Barnhard lived from September 15, 1937, to February 23, 2019, and passed away at the age of 81. He was born in Cleveland, Ohio, and he had an older brother

and a younger sister. After college at Otterbien College in Ohio from 1955 to 1959, he met Lavern McClave and they married in 1961. In 1962 they headed west to Oregon so he could attend the UO for graduate school.

After retirement he and Lavern then took off for adventures around the world, in addition to staying active in their church. Lavern passed away in 2012. Ralph and Lavern had two children, Darci and Megan. They enjoyed four grandchildren.

"Ralph was a treasured member of the Department and the UO science community," says Mike Haley. "He always had a smile on his face, and he will be greatly missed." ■

# News Briefs

## Brad Nolen helps secure spinning disc confocal microscope

**Brad Nolen** played a key role in securing a grant from the M.J. Murdock Charitable Trust that was used to purchase a spinning disc confocal microscope, which arrived at the UO this summer. Confocal laser scanning microscopy (CLSM) illuminates the sample by a single point of laser light. Spinning disk confocal laser microscopy (SDCLM) illuminates the sample at multiple points simultaneously rather than point by point as in CLSM. In CLSM, there is a time lag that is eliminated by using the spinning disk. Nolen and others in UO science will use the instrument to perform live cell imaging in multiple dimensions. The powerful tool provides the highest resolution imaging currently available, and will allow researchers to probe and measure biomolecules.

“The microscope will enable students and faculty to develop innovative methodologies in their pursuit of such fundamental questions as how proteins and other biomolecules drive biological function in healthy and diseased cells,” said Moses Lee, senior director for scientific research and enrichment programs of the M.J. Murdock Charitable Trust.

## Geri Richmond interviewed on Oregon Public Broadcasting

OPB interviewed chemistry professor and UO Presidential Chair **Geri Richmond**, a widely recognized chemist who has received the field’s highest honors including the National Medal of Science. OPB talked with Richmond about her work and what it means to her to receive the Linus Pauling Legacy Award from Oregon State University. Listen to that interview at [bit.ly/2IEKqHj](https://bit.ly/2IEKqHj).

## Geri Richmond’s National Science Board term renewed

**Geri Richmond**’s term on the National Science Board was renewed for another six years. President Trump made the announcement at the same time that he named five new appointees. Members of the National Science Board identify basic research initiatives and help clarify issues around science outreach and policy. The board establishes the policies of the National Science Foundation, approves new programs and awards, and advises the president and Congress on policy and education matters related to science and engineering.

## Team mentored by Julie Haack develops new algae-based packaging

The amount of plastic that most people encounter on a daily basis is staggering. Straws, utensils, bags, packaging, and water bottles, among others, often become trash after just one use. A company called Algotek ([algotek.net](http://algotek.net)), made of up three recent UO graduates, is working to solve that problem. **Julie Haack** mentored the Algotek team, who earned degrees in product design, material and product studies, and environmental studies, on launching the company’s biodegradable plastic as an alternative packaging material. Made from brown algae, the bioplastic dissolves in water and is even edible (although it would be more like eating cardboard!).

The idea for Algotek was hatched after the group participated in the university’s 2017 Sustainable Invention Immersion Week, an annual entrepreneurial boot camp and competition for green business ideas. They earned second place in the competition, and Haack helped them refine their plastic recipe. Now, the Algotek team is working with an Oregon manufacturer to produce their new ecoplastic, which they hope to start producing and licensing this year.

## David Tyler interviewed on Oregon Public Broadcasting

Department Head **David Tyler**, the Charles J. and M. Monteith Professor of Chemistry, was interviewed by OPB as Oregon lawmakers are considering a statewide ban on single-use plastic



BRAD NOLEN



GERI RICHMOND



JULIE HAACK



DAVID TYLER

## News Briefs

ANDY MARCUS



bags. The discussion took into account the environmental impact of reusable bags, including paper, if people use less plastic. Listen to that interview at [bit.ly/2ChN7Ly](https://bit.ly/2ChN7Ly).

### Andy Marcus receives large NSF grant for quantum research

Three UO researchers, including chemistry professor **Andy Marcus**, received a major grant to pursue studies in quantum science. Marcus, along with physicists Michael Raymer and Brian Smith, received a \$997,000 grant from the National Science Foundation. The fundamental quantum research will experimentally test electronically coupled molecules using quantum mechanical states of light to create new opportunities in the field of quantum information science. ■

AURORA GINZBURG



## Student Awards

### Aurora Ginzburg receives 2019 Student Leadership in Sustainability Award

Hutchison lab doctoral student **Aurora Ginzburg** received a 2019 Student Leadership in Sustainability Award. The program recognizes individuals whose contributions deepen the UO's culture of sustainability across a range of institutional activities. Ginzburg, who joined the Hutchison lab in June 2015 and defended her thesis this fall, worked on the synthesis of multifunctional gold nanoparticles for biomedical applications through targeting, stabilizing, and tagging ligands.

MADI SCOTT



### Madi Scott receives Goldwater Scholarship

After receiving the Faith Van Nice Scholarship in 2017, biochemistry major **Madi Scott** received a 2019 Goldwater Scholarship. One of three UO students were selected from a field of more than 1,200 applicants from across the country. The award gives natural sciences, mathematics, or engineering students up to \$7,500 for their junior and senior years to be used toward tuition, fees, books, or room and

IAN TORRENCE



board. Scott joined the Cathy Wong lab in her freshman year, studying the crystallization, self-assembly, and chemical bond formation of nanoscale building blocks.

### Biochem students selected for Knight Campus Undergraduate Scholars Program

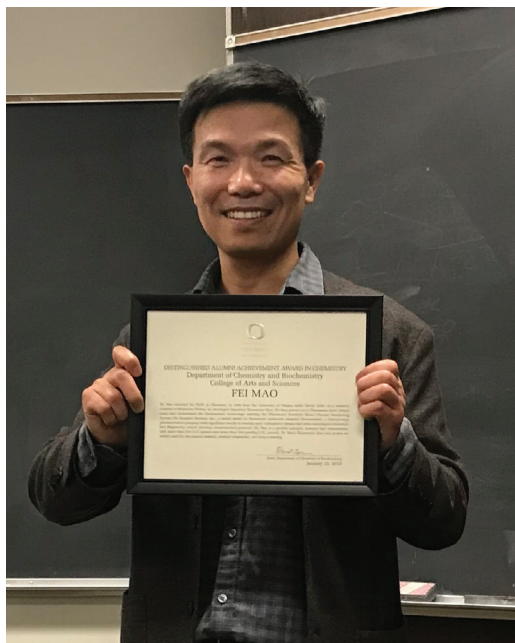
A cohort of six young scientists will enjoy an immersive, 12-month comprehensive research experience as part of the Knight Campus Undergraduate Scholars Program. The program pairs promising undergraduates with graduate students, postdocs, and faculty members who work as mentors, helping the undergraduates take on independent research projects and tailored professional development activities to help them embark on their careers. **Ian Torrence** and **Dan Tudorica**, both biochemistry majors, will receive an \$8,000 stipend over the course of the year. Torrence, working in the lab of Darren Johnson, was born and raised in Eugene and always knew he wanted to pursue a science major at the University of Oregon. Tudorica grew up near Portland and will work in the lab of Karen Guillemin. He plans to study medicine. ■

DAN TUDORICA



# Alumni Achievement Award 2019

## Honoring Fei Mao's Outstanding Career



**M**id-summer, Fei Mao had just returned from a vacation in which he and his college-age daughter drove 4,000 miles from New York City to California after her internship ended. The trip fulfilled a dream he held since graduate school of making a cross-country drive, but as a financially strapped student at the time, he couldn't afford it. His daughter's college experience was quite different than the one that brought him to the UO back in 1985, when he came through an educational program through the Chinese Ministry of Education after China had first started becoming a more open country.

"I was one of around 40 students selected at the time to be part of this program initiated by Harvard University," Mao says. "The program had about 20 sponsoring universities and each university accepted two students."

Mao is glad he chose Oregon. He went on to receive his doctorate in inorganic chemistry in 1990, working in the lab of professor David Tyler, and has since established two

businesses—Biotium Inc. and Neurocentria Inc.

"My experience at the UO was key to my career," says Mao. "Tyler was a really good professor, and also demanding. He educated his students on not only academics and how to do scientific reasoning but also enrichment, especially around my poor English at the time. I was eager to get the work done and everything was exciting to me and I worked very hard."

After graduating, Mao went to work for the Eugene-based company then known as Molecular Probes, where he worked for nearly nine years with a focus on organic chemistry. Mao says there was some question about whether he could actually do the job he had been hired for, given his inorganic PhD, but he believes that professors Tyler and Bruce Branchaud must have said good things about him, and, fortunately, he proved himself.

Mao's experience at Molecular Probes provided a strong foundation for him to be able to start his own businesses. "I was able to learn not only the chemistry and biology but also products, because the company's products were used by researchers in the life sciences field," he explains. "Because the company was small then, I also learned operations."

While there, Mao developed several fluorescent dye systems and technologies that are ubiquitous in life sciences now, including the AlexaFluor dyes and lipophilic styryl dyes that bear his signature in their very name: FM dyes. After going to work for Therasense in the San Francisco Bay area, Mao was also a key inventor, along with biotech entrepreneur Adam Heller, of real-time continuous blood glucose monitors.

"Diabetics have to monitor their glucose levels throughout the day and it's painful and is sometimes difficult because you have to prick your fingers," he says. "Our goal was to develop something you can implant underneath your skin that would give you a continuous reading,

**"My experience at the UO was key to my career."**

*Fei Mao, left, on the day he received the Alumni Achievement Award*

## Keep In Touch

We often do not know about the distinguished careers of our alumni until they share information with the department or for publishing in the newsletter's News from All Over section. Over time, as faculty leave or retire, we lose awareness of previous generations of alumni. You can help us by telling us about your career or of former students that you know. Email us at [chem@uoregon.edu](mailto:chem@uoregon.edu).  
*Thank you!*

which is particularly important for Type 1 diabetics who are usually children, because if the glucose level drops too low you can die.”

The sensor detects the electrons generated by the reaction of enzyme glucose oxidase with glucose and passes them on to the electrode. The challenge was to figure out how to transfer the electrons from the enzyme to the electrode quickly enough at a relatively low electrical potential. “That wasn’t easy,” says Mao, especially given the mostly academic knowledge of the subject at the time. That feat required a combination of knowledge in physical chemistry, biochemistry, organic chemistry, and inorganic chemistry. “Everything I had touched on in the past,” he says. “I was very lucky.”

That product, marketed under the name FreeStyle Libre, became available in the

United States about three years ago. After four years Therasense was acquired by Abbott Laboratories for \$1.2 billion, giving Mao the seed money to finally be able to start his own fluorescent dye company, Biotium. Not only that, but Mao remains close with the Abbott ownership, who supported him in the process of starting his own company. He says Abbott representatives have since told him that they are making literally billions of dollars off of technology he helped invent. “That is very gratifying to me,” he says, “that my experience and knowledge made that possible.”

Mao says he never really planned where his career would take him, but he was always curious and was willing to take chances and make changes along the way. “You never know what you’re going to discover,” he says. ■

## Alumni News From All Over

### 2010s

**Jeneva Anderson**, PhD '15 (biochemistry), taught for two years at Oregon State as an instructor/advisor in the microbiology department before starting at Lane Community College in fall 2017 as a biology faculty instructor and survey lead coordinator. At the UO, Anderson researched bacterial molecular biology and biochemistry in Karen Guillemin's lab. At Lane, 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 UO. “I hope to strengthen connections and collaborations between the students here at LCC with research faculty at nearby research institutions,” Anderson says.

**Christian Burns**, BS '15 (biochemistry), worked with Diane Hawley at the UO, then at Caltech doing immunology research in the Baltimore lab post-graduation. Burns received his master's degree from the University of Denver in cell and molecular biology with Cedric Asensio. Burns is starting a research position with 4D Molecular Therapeutics.

**Craig Chapman**, PhD '10 (chemistry), worked in the Cina Lab at the UO, then moved to the University

of New Hampshire as an assistant professor of chemistry in August 2017. The Chapman Lab studies quantum dynamics in molecules and materials using high-performance computers and artificial intelligence. He is currently part of a statewide NSF EPSCoR project that is focused on modeling and manufacturing the next generation of biomaterials. He is now enjoying teaching a physical chemistry lab as faculty after doing a stint as a TA in the same course at the UO.

**William Crowley**, BS '17 (chemistry), did research with the Nazin group while at the UO. He's currently in medical school at Western University, College of Osteopathic Medicine Pacific Northwest.

**Anna Hickey**, BS '17 (biochemistry), received the Chemical Biology Achievement Award at graduation for her work with Vickie DeRose, which culminated in both an Honors College thesis and her first-ever publication: [sciencedirect.com/science/article/pii/S0162013418301922](https://sciencedirect.com/science/article/pii/S0162013418301922). “I'm very proud of this work, and beyond grateful for the comprehensive research experience Vickie DeRose and her lab made possible for me at the UO,” Hickey says. “I credit it often, as well as the mentorship, guidance, and provisions from the Ford Family Foundation, for my current success.” After graduation, she moved to the Houston area to join a startup biotechnology company called Base Pair Biotechnologies, where



she and her coworkers developed aptamers against a variety of molecular targets. Hickey then accepted a position with MD Anderson in the Institute for Applied Cancer Science, where she will be investigating potential small-molecule anticancer therapeutics. "I am incredibly excited by the opportunity to learn and to give back at MD Anderson," she says. "In particular, this work hits home for me because of past personal losses to cancer. This work really matters, and I'm very passionate about it."

**Benedicta (Bettie) Wanjeri Kareko**, BS '15 (biochemistry), studied tropical infectious diseases research at the UO working closely with Janis C. Weeks (Lab PI), Gail Unruh (McNair program director), and Dean Livelybrooks (Scholarship for Oregon Scientists). She was a McNair Program Scholar, Diversity Excellence Scholar, and HHMI ExROP undergraduate fellow recipient. Since graduation, she rotated in research labs at OHSU as an intern then a technician (2015–19). She started medical school in August 2019.

**Laura McWilliams**, PhD '16 (chemistry), is currently working as chief of staff for California State Senator Jerry Hill representing Senate District 13 (San Mateo). Her field of expertise was lasers and spectroscopy to study air-water interfaces and atmospheric chemistry with Geri Richmond.

**Tanya Pugh**, MS '11 (chemistry), has been a quality assurance engineer for the last five years and currently works at CoorsTek Inc. in Oregon. She completed her Lean/Six Sigma Green Belt Certification in 2018 and also achieved her ASQ Quality Engineer Certification in 2019.

**Alice Rear**, BS '15 (chemistry), is doing a research year in Dr. Moghaddam's laboratory in between her third and fourth year of medical school at OHSU.

**Emily Reister Morris**, PhD '18 (chemistry), worked in Vickie DeRose's lab studying RNA-based effects of cisplatin in triple-negative breast cancer using RNA-seq. After graduation she worked as an instructor and recruiter for the UO's Master's in Bioinformatics and Genomics program, and in March 2019 started a position as a research associate at Phase Genomics in Seattle.

**Nichole Rogovoy**, BS '18 (chemistry), studied inorganic materials chemistry with Darren Johnson. Since graduation she has been working at OHSU in a cardiac electrophysiology lab under Larisa Tereshchenko. She recently finished a first-author paper on heart rate variability in end-stage renal disease. She was accepted to the OHSU Medical School, and matriculated in August 2019. As of this writing, she was waiting to hear whether she will be entering the MD program or the combined MD/PhD program but either way she will be a medical student.

**Ariel Rosenfield**, BS '18 (chemistry), worked in George Nazin's lab while at UO and coauthored three papers, graduating with departmental honors. In fall 2019 she entered a PhD program in pure mathematics at UC Irvine.

**An Ruan**, BS '13 (chemistry), joined the research team at OHSU's pharmacology department and is starting his next journey in the OHSU physician's assistant program, which he is very excited about.

**Ashlee Vise**, BS '18 (chemistry), traveled for six months, spending one month in Thailand, three months in Europe, and the rest of the time in Oregon, California, Arizona, and Colorado. Now Vise is working at the National Renewable Energy Laboratory, working on electrochemically splitting carbon dioxide to produce formate. This combats the issue of too much carbon dioxide in our atmosphere as well as producing a sustainable fuel that can be used to power cars and homes.

## 2000s

**Scott Barnett**, BS '00 (psychology, chemistry minor), spent six years in the United States Marine Corps as an officer, which included a combat tour in Iraq. Following that experience he rode his bicycle 3,500 miles across Australia to figure out what should come next. The answer was science! Barnett returned to school and earned a second BS in molecular biology at the University of Nevada, Reno, followed by a PhD in cellular and molecular pharmacology and physiology (2017), where he studied molecular mechanisms surrounding preterm labor. He is now a postdoctoral fellow at the

Medical College of Wisconsin developing new drugs to treat kidney disease. He is the recipient of a PhRMA postdoctoral fellowship, and has authored nine publications, including three as first author. The most important accomplishment of his life, though, was finding his wonderful wife, Dharma, and raising twin one-year-old boys. "It's been quite a ride!" he says.

**Cynthia Bonville**, MS '02 (biochemistry), worked under Diane Hawley, Bea Darimont, and Rick Dahlquist. In the past 15 years, she's become a mother four times and has supported her husband in creating a zero carbon footprint household. In addition, she returned to her avocation as a cellist and has been a member of Albany String Orchestra for a year and sits as second, following a 15-year hiatus after a previous 10 years with the Southeast Symphony in Ketchikan, Alaska. She also has been caregiver to a recently widowed elderly mother. "In short, running a household, minimizing our impact on our planet, and gambling on a future world," she says.

**Margaret (Roller) Chapman**, BS '05, is now an attending physician at Massachusetts General Hospital in Boston and a faculty member at Harvard Medical School. In addition to clinical work and teaching medical students, she works in complex care redesign for vulnerable populations and innovative curriculum within faculty development. Craig and Margaret got married in 2010 and welcomed their first child (and future scientist!) recently.

**Brian Truong** '07 (biochemistry), graduated with departmental honors from the honors college, working with research mentor Andrew Berglund. Truong was an anesthesiologist at Northwest Anesthesia Physicians in Eugene/Springfield but transferred to a new job in Portland in August 2019.

## 1990s

**David Anderson**, PhD '91 (chemistry), was recently hired into a research and development position at Thermo Fisher Scientific in Eugene. He says he's been with the company for a number of years in various roles; however, this latest role is a direct application of the skills he acquired while earning his PhD from the UO. The majority

## Alumni News From All Over

of his responsibilities are performing custom bioconjugation chemistry as well as new product design and development.

**Jon Litty**, BA '97 (biochemistry), received his license to practice law and will now focus on intellectual property and business immigration law.

**Peter Zmolek**, BS '96 (chemistry), earned his PhD at UC San Diego, then moved to Germany to do a post-doc at the Max Planck Institute for Polymer Research in Mainz. He now lives in Hannover (Germany) and works for Continental Tire as a director of material research. (If you are into soccer, Conti is a sponsor of the Portland Timbers, he adds!)

### 1980s

**Mary Dasso**, BA '84 (biochemistry, mathematics minor), graduated from the honors college after working with mentor Pete von Hippel. Dasso was elected as a 2018 Fellow of the American Association for the Advancement of Science in the field of biological sciences. She continues to work at the National Institute for Child Health and Human Development, where she is currently associate scientific director.

### 1970s

**Leslie Lefevre Hanson**, BA '73 (chemistry), worked as a high school chemistry teacher then "retired" to raise seven children with her husband, Wayne, of 47 years. They also homeschooled for 30 years. Lefevre Hanson remembers noticing that many scientists are very musical and their clan definitely was. They started a family band that evolved into their four youngest traveling as a professional Western swing band called The Hanson Family. The three youngest continue to entertain throughout the US and Canada. They have 22 grandchildren so far, from 19 years down to five months. The sixth wedding is being planned and the family celebrated their parents' 89th and 90th birthdays in May 2019 with a family reunion at the coast. Her father was a nuclear physics professor who ran a lab at the UO for more than four decades. Her mother finished her geography bachelor's degree at the UO when Lefevre Hanson was 15 years old. Grandma

later worked in the administration building after raising eight kids, of which Lefevre Hanson is the oldest. In 1978 Lefevre Hanson and her husband joined with toxicologist Dr. Arthur Furst, who invented the first oral chemotherapy and founded Stanford University's Chemotherapy Research Lab. The family continues to be involved with the company and both enjoy great health at 67 and 68 years old.

**Bruce Watson**, BS '70 (chemistry), did his graduate research at the University of Washington in the biochemistry laboratory of Milton Gordon. His PhD project was concerned with the plant pathogen *Agrobacterium tumefaciens* and a plasmid it carries that confers the ability to form plant galls. After receiving his PhD, he went mountain climbing until he ran out of money, then worked in wine retailing for about 18 months. He then spent the next 11 years as a postdoctoral fellow/research associate in the botany department at UW, where he worked on quite a variety of projects and organisms. He eventually realized his path did not lie with biochemical research and worked harvest at Columbia Winery in 1986 before accepting full time employment there as a chemist/quality manager in 1988. Watson spent 20 years managing the quality assurance program for Columbia Winery and associated properties (Covey Run, Hogue, Ste. Chapelle) and also traveled many times to Australia to source wine for the brand Alice White. He retired from this position in 2008 and now consults for small wineries and makes wine on a small scale, experimental basis with grapes grown near Bellingham, Washington. He has taught wine chemistry and microbiology in various venues. He still goes regularly to the mountains and plays the lute, badly, he says.

### 1950s

**Gerald G. Ohlsen**, BA '55 (chemistry), went on to get a master's degree ('57) and a PhD in physics ('60) at Stanford. At the UO, his chemistry mentor and inspiration was Donald Swinehart, who had worked at Los Alamos during World War II. Ohlsen says Swinehart's recollections about his experience were the probable reason that he ended up working there later, and eventually retiring from there. After receiving his PhD, he worked as a physicist at the University

of Texas at Austin, the Australian National University, and the Los Alamos National Laboratory (then Los Alamos Scientific Laboratory), working in nuclear physics. He was a visiting professor of physics at the UO in 1970–71 while on sabbatical from Los Alamos. After that he left science, went into the real estate development business in 1980, developed a number of subdivisions and constructed a number of residential and commercial buildings, and is still active in that business. Ohlsen picked up a law degree from the University of New Mexico in 1992, specializing in real estate and tax law (to the extent that specialization is possible at that level, he says). He received the College of Arts and Sciences Alumni Fellow Award in 2010. Ohlsen says he has always been fond of saying that physics (and chemistry) constitute one of the finest backgrounds for going into any field of endeavor. "Based on that background, I have always striven to have enough basic information at hand to make a rough estimate about many questions that have a quantitative answer, and thus to smoke out much of the nonsense that one reads in the press, etc," he says. "This kind of skepticism does not always endear one to those around you, but it is nevertheless a habit that I recommend and promote. Having studied both law and science, I am fond of saying that science and law are quite antithetical. Science is about finding out what is true and what is not true. Law tends to be about winning the argument regardless of truth. A sad state of affairs."

**Constantine (Costas) Spalaris**, MA '50 (chemistry), worked in the lab of Pierre Van Ryselberghe, who taught a "very interesting" theoretical thermodynamics course. "Dr. Van R," as he was known to graduate students, was the only internationally recognizable faculty member since he had two Navy research contracts. Spalaris attended Carnegie-Mellon (Carnegie Tech at that time) and also obtained his first paid job after graduation. He obtained a PhD and worked for GE Nuclear as a manager of fuels and materials. "We were pioneers as we developed the first commercial nuclear plant within budget and on time," he says. "The cultural exposure to UO chemistry was a basic experience and a considerable help in my career. I am now 92 years old and I am proud to declare that I have become the curmudgeon I wanted to become!" ■

# Honor Roll Chemistry Gifts, July 1, 2018, to June 30, 2019

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## Chemistry and Biochemistry News

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# Remodel of Klamath Hall Underway

*continued from front page*

Unlike previous lab remodels that were more like Band-Aid fixes, the current remodel takes everything back to the bare outer walls and thus represents a complete gut and rebuild. Gone are the narrow aisles, dark and cramped quarters, student desks in the lab, hoods facing one another, and poor lines of sight. In their place are well-lit work spaces with wide aisles, innumerable eight-foot hoods, a new air handling system, and student desks in dedicated “bullpens” outside of the lab environment. Gone also are all of the faculty offices and the 331 Klamath

seminar room/classroom. In their place will be additional new research labs. In the end, the complete renovation of approximately 17,000 square feet of space is a \$22.6 million dollar project with another \$2 million of associated upgrades to the electrical infrastructure, chilled water, and existing air fans.

“Offering state-of-the-art facilities is a great way to attract the very best faculty and students,” says Jasti. “There has long been a discrepancy with the high level of research being done on the third floor of Klamath with the outdated laboratories. The new space will inject

some new energy into an already highly innovative group of people.”

Although it took four years and 10 months from the time he submitted the facilities proposal, Mike Haley, the Richard M. and Patricia H. Noyes Professor of Chemistry, is enjoying the successes as much as anyone. “Regardless of the time it took, I am excited that the renovations are at long last really happening, as this was my one unfulfilled goal when I stepped down as department head. My research group is already chomping at the bit to move once Phase II is done.” ■