The University of Oregon has always been committed to student and faculty diversity, but never has a public and open commitment to that goal been more important than in today’s world. The UO has a variety of resources that support student diversity (admissions.uoregon.edu/open/resources), including a number of programs and workshops designed for first-generation college students, low-income families, and various clubs and organizations to help diverse students find a community.

The Lyllye Reynolds-Parker Black Cultural Center (dos.uoregon.edu/bcc) was named in honor of Lyllye Reynolds-Parker, a Black woman born in Eugene in 1946 who has dedicated much of her life’s work to social justice. She earned her BA in sociology from the UO in 1991, then retired after 17 years in the Office of Multicultural Academic Success. The center opened in 2019 and is “the engine” for Black student success at the UO. Dr. Aris Hall, the center’s coordinator, says trying to reach out to students during a pandemic has been challenging, but the center is just as devoted as ever to being a strong community resource. “To open the Lyllye Reynolds-Parker Black Cultural Center was to create an experience of student engagement—academically, socially, and culturally—for students but also for the Black faculty and staff,” says Hall. “It was about creating a hub of connection between all of them and folks in the community if they wanted that.”

Recruiting and retaining Black faculty, staff, and students is important, says Hall, because when students don’t see Black faculty or staff in the STEM areas, they will not be likely to come here and major in STEM fields and truly feel embraced in that environment. Hall says that the majority of Black students at the UO are from other areas, and they lack a connection to the Black community here. “They may be from places where there’s more diversity, or more people who look like them, and they get here and it’s the opposite of that,” Hall says. “So, how are we creating spaces to connect and engage? The cultural center, at least when it’s not closed due to COVID, gives people somewhere to go that’s not their apartment or their residence hall.” The cultural center has been offering meetings and programs online.

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Department Head’s Perspective

“For academic year 2021–22, we are moving to mostly in-person classes, while keeping the best pedagogical practices learned from remote teaching to provide better and more flexible experiences for our students.”

Department Head
Mark Lonergan

I write saddened by the hardship and heartache so many in our community have experienced over the last year and a half, but also heartened by the resilience, creativity, and empathy that our faculty, staff, and students have exhibited in the face of it. I sincerely hope that this message finds you in good health and in good spirits.

For those of you that do not know me, I am the new head of the department. I was an undergraduate at the UO in the 1980s and have been a member of the faculty since 1996. My research interests are in the areas of electrochemistry, plastic electronics, and solar cells. I currently teach general chemistry, electrochemistry, and the chemistry and physics behind semiconductor devices. I took over as head from now Emeritus Professor David Tyler. I would like to thank Professor Tyler for his 35 years of service to the university and in particular his service as department head. He was also serving a term as department head back when I was hired!

Our faculty and students, supported by an exceptional staff, have been incredibly resilient in sustaining our exceptional research programs in the face of the COVID-19 pandemic. At its outset, our laboratory facilities were shuttered as we developed practices to keep our research community safe. With these protocols in place, our research labs began to reopen in late spring 2020. We went through a period of time with researchers working both remotely and in lab, and are now mostly back to in-person work. Throughout, we used shifts, social distancing, and enhanced cleaning procedures to provide as safe a work environment as possible. In particular, our students have worked tirelessly in maintaining research progress through careful planning, identifying efficiencies, and hard work. Our researchers have also been bolstered by the opening of state-of-the-art and beautifully renovated laboratory space in Klamath Hall.

Our excellence in research has again been recognized by significant awards. These include four of our students receiving National Science Foundation (NSF) Graduate Research Fellowships, Professor Mike Haley receiving the George A. Olah Award from the American Chemical Society, Professor Pete von Hippel receiving the Ignacio Tinoco Award, Professor Scott Hansen receiving an NSF CAREER award, and Professor Chris Hendon being named a Cottrell Scholar.

Imagine teaching a chemistry lab where students could not be physically present in lab. This was our reality heading into spring 2020. The faculty and graduate students teaching our labs creatively used videos, simulations, and live streams to provide students with an engaging and high-quality virtual laboratory experience. Instructors of classroom-based courses also faced challenges adapting the active learning techniques they traditionally use—and which serve to engage students—to a remote platform. Again, faculty and graduate students rose to the challenge with creative solutions. For instance, Professor Ken Doxsee was recognized with a University Award for Excellence in Remote Teaching, Senior Instructor Tom Greenbowe won the Tykeson Teaching Award, and Professor Cathy Wong received the Ersted Award for Distinguished Teaching. As undergraduates could no longer visit our offices for help, our

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More UO STEM organizations supporting diversity

- Society for Advancement of Chicanos and Native Americans in Science (SACNAS, uosacnas.uoregon.edu/about)
- MEChA (blogs.uoregon.edu/mecha), an organization that supports Chicano and Latinx students
- LGBTQIA3 Alliance
- Out in STEM

Accelerating Scientific Impact, providing the financial backing for professional development travel (virtually, these days) awards. CMiS is hosting virtual events and they have started a LinkedIn group (A Community for Minorities in STEM Alumni Network, linkedin.com/groups/13806200/) to keep in touch with alumni as they move forward with their careers beyond the UO.

The mission of the UO’s Women in Graduate Science (WGS, blogs.uoregon.edu/uowgs) is to provide professional development for women in science to help them become successful contributors in their fields. Annie Gilbert, the 2020–21 president of WGS, says they are able to do this through seminars and professional workshops, social events, and a K-12 outreach program. They also partner with Ophelia’s Place in Eugene (opheliasplace.net), a group that supports healthy development in girls, especially when they are exposed to childhood stressors like domestic violence, low educational achievement, early pregnancy, or drug and alcohol abuse. Ophelia’s Place founder Rosaria Haugland is a UO graduate who went on to a successful biochemistry career (and founded the UO’s Haugland Fellowship). WGS also links up undergrads and

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The extensive renovations of the third floor of Klamath Hall are at last finished. Even though planning for this project began in fall 2015, the desire to add a fourth floor for offices and classrooms turned out to be prohibitively expensive, so it required going back to the drawing board. In the end, all of the old faculty offices as well as the seminar room went away, and the entire periphery of the top floor is now state-of-the-art synthetic laboratory space. Construction occurred in two phases, with Phase I finishing December 2019 and Phase II in August 2020. Even with the shutdowns and slowdowns related to the global pandemic, completion was only a few weeks behind the mid-summer 2020 target date.

Unlike the “band-aid” fixes of the 1990s and 2000s, the University of Oregon has done a great job over the last 10 to 12 years significantly upgrading its dated science facilities. Nearly two-thirds of Klamath Hall has been majorly renovated over the past decade, benefitting faculty in all three research divisions (physical, biochemistry, organic/inorganic/materials). Nearby Pacific Hall (the old “Science I”) was gutted and rebuilt for biology and human physiology faculty, and Huestis Hall will undergo a complete reconstruction starting in 2022. “It’s great to see the state and the UO invest in updating outdated science spaces on campus to provide students, researchers, and faculty with modern, safe, and cutting-edge research spaces,” says Mike Pluth, chemistry professor and Associate Vice President of Research. “This modernization will have major impacts on student and faculty recruitment for future chemistry Ducks.”

In addition to the Haley and Pluth labs, the remodeled third floor Klamath space houses the research groups of professors Amanda Cook, Vickie DeRose, Ramesh Jasti, and Darren Johnson. There are also two labs waiting to be occupied by future faculty hires. “It’s great to see the students finally working in spaces that match the world-class science that they do,” says Jasti. “I imagine that things will only get better from here with the more modern facilities.”

These projects align with the university’s other scientific facility advancements, namely the Phil and Penny Knight Campus for Accelerating Scientific Impact. The Knight Campus is a billion-dollar initiative for integrating research, training, and entrepreneurship made possible by a $500 million lead gift from Penny and Phil Knight and augmented with $70 million in state funds. The Knights recently gave a second $500 million gift. The project, which is radically transforming the land across Franklin Boulevard at the northeast corner of campus, will focus on cutting-edge science in the realms of bioengineering, biological materials, precision medicine, and other related biological and molecular engineering fields. The Knight Campus will speed up the “impact cycle,” allowing the UO to accelerate the cycle of discovery and the transition to a product, innovation, or cure. Construction of the first Knight Campus building was completed in fall 2020, and planning for the second building is underway.
Faculty Awards and Honors

Pete von Hippel Receives Ignacio Tinoco Award
Professor Emeritus Pete von Hippel received the 2021 Ignacio Tinoco Award from the Biophysical Society. The award was prompted by von Hippel’s studies of nucleic acids and their interactions. Von Hippel is also a member of the Institute of Molecular Biology at the University of Oregon. The award, established in 2018, honors the legacy of Ignacio “Nacho” Tinoco Jr., who was a pioneer in RNA folding. “Pete honors the example set forth by Nacho, and we are pleased to award him for his many years of highly innovative scientific contributions as well as his commitment to fostering inclusive and collaborative research teams,” said BPS President Catherine A. Royer of the Rensselaer Polytechnic Institute in a press release. Von Hippel was elected to the National Academy of Sciences in 1978, to the American Academy of Arts and Sciences in 1979, and to the American Philosophical Society in 2004. He won the ASBMB–Merck Award in 2000, and the BPS Founders Award in 2013.

Mike Haley Receives ACS Olah Hydrocarbon Award
Mike Haley received the George A. Olah Award in Hydrocarbon or Petroleum Chemistry from the American Chemical Society. The Olah Award recognizes outstanding, highly original research achievements in hydrocarbon or petroleum chemistry, and is named for the outstanding scientist who won the Nobel Prize in Chemistry in 1994 for his work with hydrocarbon compounds and superacids. Haley’s pioneering work on carbon-rich phenylacetylene scaffolds was the basis for this award. He is the third member of the current faculty in the Department of Chemistry and Biochemistry to receive an ACS national award. The others are Presidential Chair in Science and chemistry professor Geri Richmond and Tom Greenbowe, senior instructor II. Haley was named fellow of the American Association for the Advancement of Science in 2011 and was appointed the Richard M. and Patricia H. Noyes Professor in 2013.

Chris Hendon Named a Cottrell Scholar
Chris Hendon has been selected by the Research Corporation for Science Advancement as a recipient of a 2021 Cottrell Scholar Award, one of 25 outstanding teacher-scholars to receive the award. The Cottrell Scholar program recognizes the very best early career teacher-scholars in chemistry, physics, and astronomy. At the UO since 2017, Hendon was selected for his research into how vacancies and interstitial atoms, which may be considered defects, of metal-organic frameworks affect the likelihood of their formation and their resultant emergent chemistry. Hendon is affectionately known as “Dr. Coffee,” as some of his research has gone into the chemistry of water and coffee beans, which has led to winning international barista championships and a book called Water for Coffee.

Scott Hansen Receives NSF Career Award
Assistant professor Scott Hansen has been selected for a prestigious National Science Foundation CAREER Award. The award will provide funding for the Hansen Lab’s research into the mechanisms controlling spatial patterning of PIP lipids in eukaryotic cell polarity. Hansen’s multidisciplinary approach visualizes how biochemical reactions collaborate to generate cellular organization. The research will strengthen the understanding of molecular processes that underlie tissue organization, asymmetric cell division, and cell movement. The NSF Career Award is provided to researchers early in their careers who are recognized as having potential to lead to significant advancements in knowledge. The award funds research and education activities for five consecutive years. Hansen has been at the UO since 2017.
Faculty Awards and Honors

Cathy Wong Wins Ersted Award for Distinguished Teaching
Assistant Professor Cathy Wong has been awarded the A.J. Ersted Award for Distinguished Teaching. Established in 1956, this award recognizes excellence in teaching by faculty members early in their careers. It is awarded to only one or two faculty members at the UO each year. Wong, who joined the 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.

Tom Greenbowe Wins Tykeson Teaching Award
Tom Greenbowe, a senior instructor II in the department, has undertaken “heroic efforts,” in the words of Department Head Mark Lonergan, to dramatically transform both lecture and inherently hands-on laboratory courses to a web-based format. While doing so, he has maintained his commitment to excellence in pedagogy. For 2020–21, the Tykeson Teaching Awards, given to outstanding educators in the College of Arts and Sciences, have placed a particular emphasis on those instructors who have also demonstrated excellence in online and remote delivery in the face of an unprecedented crisis. Greenbowe’s work has helped more than 1,000 students continue their education as seamlessly and effectively as possible. Greenbowe, an experienced and valued instructor, has also received the George C. Pimentel Award in Chemical Education from the American Chemical Society.

Ken Doxsee Wins an Excellence in Remote Teaching Award
Chemistry and biochemistry faculty member Ken Doxsee was selected by the UO’s Office of the Provost as a recipient of the 2020 Excellence in Remote Teaching Award. The awards recognize faculty that transformed their spring 2020 traditional, face-to-face courses into accessible, engaging, and well-organized remote teaching environments where students built valuable relationships with their instructors and peers. Professor Doxsee taught CH 336 (Organic Chemistry III) and HC209H (HC Science) that term.

Mike Harms Wins Fund for Faculty Excellence Award
Associate Professor Mike Harms is the latest member of the Department of Chemistry and Biochemistry to win a UO Fund for Faculty Excellence Award. This award is given annually by the UO to select faculty members who have a record of distinction in their quality of scholarship and creative accomplishment, contribution to their respective field, and contribution to the university. Amazingly, 10 faculty members within the department have been so recognized. 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.
Faculty Awards and Honors

Chemistry Department Celebrates Several Promotions

Four chemistry department faculty members, Shannon Boettcher, Ramesh Jasti, Brad Nolen, and Michael Pluth, were recognized with promotions to full professor. One, Jim Prell, was recognized with a promotion to associate professor.

Professor Shannon Boettcher received his BA in 2003 from the University of Oregon. He attended the University of California-Santa Barbara, for his PhD and then California Institute of Technology for his postdoctoral studies. Back at Oregon since 2010, his group studies solar materials and electrochemistry. His lab is focused on designing, synthesizing, and understanding materials for applications in energy conversion and storage.

Professor Ramesh Jasti’s undergraduate work involved synthesis and characterization of gold nanoparticles, which led to an interest in nanoscience. After obtaining his PhD in 2006 from the University of California-Irvine, Jasti was a postdoctoral fellow at the Lawrence Berkeley National Laboratory. He joined Boston University in summer of 2009 and then moved to the University of Oregon in summer of 2014, where his group works on the chemistry of “nanohoops.”

Professor Brad Nolen began at the UO in fall 2008. Prior to that, he was a postdoctoral fellow at Yale University. In August 2020, Nolen received a $2.88 million Maximizing Investigators Research Award from the National Institutes of Health. This prestigious five-year grant will fund Nolen’s lab to further examine the assembly of microscopic filaments that make up the cytoskeleton, with the hope that a better understanding of these important processes will reveal ways to stop human disease and eventually lead to new treatments.

Professor Mike Pluth received his BS from the UO in 2004, then his PhD from the University of California-Berkeley in 2008. After postdoctoral research at MIT, he returned to the UO in 2011. Pluth’s research focuses on different aspects of molecular recognition at the interface of chemistry and biology. His areas of research interest include the chemical biology of carbonyl sulfide; the detection, delivery, and quantification of biological hydrogen sulfide (an enzymatically produced biomolecule that plays important roles in living systems); and bio(in)organic sulfide chemistry.

Associate Professor Jim Prell received his BA in chemistry, mathematics, and German in 2005 from Washington University in St. Louis. He completed his PhD and postdoctoral studies at the University of California-Berkeley. He has been at the University of Oregon since 2014, developing new methods for determining structures and behavior of large biomolecular assemblies with ion mobility-mass spectrometry, theory, and computations.

Department Offers Retirement Farewells

The Chemistry and Biochemistry Department said farewell to seven longtime faculty members who have retired. Former department head David Tyler, Tom Stevens, Cathy Page, Mike Kellman, and Ken Doxsee are now professor emeriti. Julie Haack and Randy Sullivan retired as senior instructor emerita and emeritus, respectively. Enjoy your retirement and sincere thanks to your myriad contributions to the Department of Chemistry and Biochemistry!
Student Awards

Anita and Friedhelm Baitis Scholarship
Alumni Friedhelm “Fried” Baitis (BS ’68, chemistry) and his wife, Anita Gleason Baitis (BS ’68, biology), have created the Anita and Friedhelm Baitis Undergraduate Summer Research Scholarship. The first two scholarships of $5,000 each were awarded summer 2020 to Daria Wonderlick and Dylan Galutera. Wonderlick was a biochemistry major from Portland, in her senior year working in the Harms lab characterizing how mutations in RNA molecules interact at a biophysical level. Galutera was a biochemistry junior from California who worked in the Widom lab studying the folding mechanisms of RNA molecules. The summer 2021 recipients are Laura Leibfried and JJ Yin who work in the labs of Cathy Wong and Mike Harms, respectively.

Fried says he has always been interested in chemistry from an early age, most likely the result of a chemistry set that he received as a Christmas gift. After attending his first chemistry class during his freshman year at UO, and later under the tutelage of Professor John Keana, he knew that he would study chemistry (although that’s not how he ended up spending his career!). He and Anita met during their freshman year at the UO in 1964 and married during their junior year. Anita became a medical lab technologist, and Fried spent 20 years as a pilot with the US Air Force followed by 17 years with United Airlines.

In establishing this scholarship, Fried says, “We both felt that our college education was important to our success and happiness in our chosen fields. We therefore wanted to give back to the university by setting up a self-sustaining perpetual scholarship in our degree fields. It is our pleasure to watch and see the continuation of the Oregon experience for others.”

Percy Julian Scholarship
Thanks to a generous donation, the department has established the Percy Julian Scholarship. The Percy Julian Scholarship is awarded each year to support the scientific aspirations of our undergraduate majors and to advance our commitment to an inclusive and diverse student population. Dr. Julian was an eminent chemist that advanced the synthesis and large-scale production of steroids from plant compounds. He was also a successful entrepreneur, having founded Julian Laboratories, which he later sold to Smith, Kline, and French. Julian was the first Black chemist and the second Black scientist to be elected to the National Academy of Sciences.

The first recipient of the Percy Julian Scholarship was Faith Longnight, who is working in Darren Johnson’s lab and in collaboration with Mike Haley’s group. Longnight is studying the kinetics of hydrosulfide binding to intentionally designed receptor molecules. She has also been involved with the UO Chemistry Club, worked as a tutor in the Learning Chemistry program, and is starting O-STEM (Out in STEM), which is a club for undergraduate STEM majors within the LGBTQ+ community. The current recipient of this scholarship is Phyllis Liao, who is working in Ramesh Jasti’s lab. She is studying the development of “nanohoop”-based rotaxanes for sensing reactive oxygen species which exhibit a turn-on fluorescence response, thus showing the molecules are tailor able for use in biomedical research.

Fargher, Lindquist, and Tran Selected for Keana Fellowship
Thanks to a generous donation from Janet and Dennis Beetham, MS ’67, the department established the John Keana Graduate Fellowship to honor emeritus professor John Keana. 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. “The gift will help us attract the best and brightest graduate students,” says former department head David Tyler. The 2020–21 recipient was Hazel Fargher, a fifth-year graduate student working on the Haley/Johnson
collaboration on anion sensing. Fargher successfully defended her thesis in August 2021 and has assumed a postdoctoral position at the University of Texas at Austin. The 2021–22 recipients are Emma Tran and Grace Lindquist. Lindquist is working in the Boettcher lab studying anion exchange membranes for hydrogen production. She is an outreach coordinator for Women in Graduate Science and helps direct Mad Duck Science. Tran works in the Richmond lab studying interfacial phenomena of nanoemulsions for environmental and biopharmaceutical applications. Tran has been on the SACNAS executive board (The Society for Advancement of Chicanos/Hispanics and Native Americans in Science, uosacnas.uoregon.edu) and is actively involved in undergraduate education, both through our general chemistry program and in helping to facilitate summer workshops for the Summer Institute for Scientific Teaching.

Checkers Marshall Receives Haugland Fellowship

Checkers Marshall, a chemistry graduate from Colorado, has been selected for the prestigious Rosaria Haugland Graduate Research Fellowship. Dr. Rosaria Haugland is the cofounder of Molecular Probes, which was a Eugene company founded in 1975 that is now part of Thermo Fisher. Marshall was selected for excellence in research, coursework, and ongoing activities that embody the intent of the Haugland award. This fund provides a three-year, full graduate fellowship and tuition award to an outstanding student in the department. Marshall joined the Brozek lab as his first student during the summer of 2018. Marshall’s research focuses on nanoparticles of highly porous materials known as metal-organic frameworks (MOFs).

Jeremy Bard and Amber Rolland Receive UO Research Fellowships

Graduate students Jeremy Bard and Amber Rolland were awarded UO doctoral research fellowships for academic years 2020–21 and 2021–22, respectively. Open to students in any UO PhD program, the fellowship is awarded to the most outstanding doctoral student (as determined by a faculty selection committee) in the final year of their degree studies. Dissertations are judged on the quality of the written proposal and the potential impact of the research both within and beyond the student’s field. This fellowship carries an award stipend of $20,000 and includes a tuition waiver, fee subsidies, and health insurance. Bard, who graduated June 2021, worked on a class of highly fluorescent, nitrogen- and phosphorous-containing heterocycles, a project jointly supervised by faculty members Mike Haley and Darren Johnson. Bard was a prolific student, publishing 10 papers from his PhD work. He now is a visiting assistant professor at Roanoke College in Virginia. Rolland is a fifth-year graduate student working in the lab of Jim Prell. Her dissertation work has pushed the boundaries of native ion mobility-mass spectrometry to elucidate more complex, detailed information about biomolecular structure, thus overcoming the quantitative barrier of this technique.

Van Nice Scholarship Awarded to Amanda Linskens and Sarah Beaudoin

Amanda Linskens, a biochemistry major from Wisconsin, and Sara Beaudoin, a chemistry major from Oregon, are the 2020–21 and 2021–22 recipients, respectively, of the Faith Van Nice Scholarship, which was created to honor the legacy of alumna Faith Van Nice. The scholarship provides financial support, typically between $4,000 and $5,000. Linskens joined the Doe lab at the start of her freshman year and is currently researching what type of neuroblasts the MDN and Pair1 neurons arise from and what transcription factor window these neurons are born in. This research is important for better understanding the development of neurons and for further research into
neurodegenerative diseases. Beaudoin is a member of the Boettcher lab and her research focuses on electrolysis technology development. Electrolysis, better known as water splitting, consists of two half-reactions within an electrolytic cell that make possible the extraction of storable and non-pollutive hydrogen gas from water.

Maya Pande and Anabel Chang Receive Kuntz-Swinehart Scholarship
Maya Pande, a double major in biochemistry and political science, and Anabel Chang, a biochemistry major, are the 2020–21 and 2021–22 recipients, respectively, of the Kuntz-Swinehart Memorial Scholarship. Both students conduct research in the Marcus lab, which revolves around the physical properties surrounding the movement of macromolecules in biological environments. The $1,000 scholarship recognizes academic excellence in our majors, and was established by former UO chemistry students, brothers Gary and Jerry Christian, and Abe Perlstein and Martin Ovitz in honor of professors Adolf Kuntz and Donald Swinehart, whose instruction, influence, and inspiration had a significant impact on their career paths.

Four Chemistry Students Receive NSF Awards
The National Science Foundation has funded four UO chemistry students with 2020 graduate research fellowships. An additional 10 UO students received honorable mentions in chemistry, computer science, neuroscience, physics, and psychology. The fellowship is highly competitive, with only 2,000 being awarded each year to graduate students across the US. Recipients Alison Chang, Marc Foster, Khoa Le, and James May are all current graduate students in chemistry.

UO Sciences Recommit to Student and Faculty Diversity
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graduate students to help them navigate their careers in the undergraduate sciences.

Again, COVID has taken its toll, but Gilbert says the group has remained committed to providing support and community for graduate students. “We’ve had to change to some virtual events, but we have still had pretty good turnouts,” she says. “After the virtual events of last academic year, the 2021–22 board is excited to transition back to in-person as it becomes safe to do so.”

In November 2020, the UO’s Division of Equity and Inclusion published IDEAL: Our Roadmap for a Fully-Inclusive and Resilient Campus (inclusion.uoregon.edu/sites/inclusion1.uoregon.edu/files/ideal_campus_report_11.23.202.pdf). The report shows that in spring term 2017, the UO launched the IDEAL framework, activating Diversity Action Plans (DAPs) in 35 units, with the goal of implementing 657 tactics. To date, about 60 percent of those tactics have been met or in progress. They found that Black faculty are almost three times more likely to leave the UO than any other underrepresented faculty group. Indigenous and Pacific Islander faculty continue to comprise the smallest group of UO faculty. While representation of women in science is increasing and promotions among women of color through the ranks is improving, the panel putting this report together determined that movement is much too small and too slow. Clearly, the UO has work to do, but work is in progress and many people have their feet on the ground actively working to achieve these important goals.
News Briefs

New Oregon Center for Electrochemistry

Shannon Boettcher is the founding director of the Oregon Center for Electrochemistry, a new program that is focused on sustainable technology initiatives. The center is striving to create an ecosystem that combines university research and innovation with unique immersive educational programs, including an accelerated master of science program in electrochemical science and technology/engineering. Learn more at electrochemistry.uoregon.edu.

Oregon ARCS Chapter Funds Perpetual Scholarship

The Oregon Chapter of the ARCS Foundation (oregon.arcsfoundation.org) advances science and technology by providing financial awards to academically outstanding PhD students seeking degrees in STEM and medical research fields at OHSU, OSU, and the UO. Every member in the Oregon Chapter contributes a minimum of $500 each year to the Scholar Award Fund, and these contributions combine to fund the group’s ARCS Oregon Chapter Scholar Awards. Each scholar receives $6,000 a year over a three-year period.

ARCS Foundation members are all women who are interested in supporting science. ARCS member Jill Josselyn passed away in August 2017. Josselyn was a software engineer and oceanographer with a lifelong interest in science who was also a friend of UO chemistry professor Vickie DeRose. In 2018, Josselyn’s $1.5 million bequest was created to support the scholar program in perpetuity. This is the largest gift to date for the Oregon Chapter and significantly increases its ability to achieve its goals. The 2021 ARCS award recipients are incoming students Nicole Sagui and Melanie Kascoutas.

“This money is so important . . . because it can be used for anything they need,” says DeRose. “It can be for personal use as a way to stabilize their lives while they do graduate work, it can be for travel for their science, and it helps to recruit the very best students to the UO.”

UO-OHSU Collaboration Supports Five New Projects

Five research teams received funding from the OHSU-UO Collaborative Seed Grant funding program. The program creates new collaborations between researchers at OHSU and the UO.

The UO’s Jim Prell, an associate professor in the department, and OHSU’s Kirsten Lampi, a professor of integrative biosciences in the school of dentistry, were funded to determine the driving forces of protein aggregation with native ion mobility-mass spectrometry. Launched in February 2018, the program is intended to deepen partnerships and prepares teams to apply for more external funding. These awards are for phase 1 piloting grants, which support studies designed to provide feasibility evidence or preliminary data for joint UO-OHSU grant applications.

Jim Hutchison’s New Leadership Role at Knight Campus

Jim Hutchison is now senior associate vice president at the Phil and Penny Knight Campus for Accelerating Scientific Impact. Hutchison has long been a highly regarded member of the UO’s science community who previously served as director of the UO’s Materials Science Institute and as associate vice president for research and innovation. In his new role, Hutchison oversees all research and academic matters at the Knight Campus. He will create and implement an overall training and professional development plan and has a leading role in the development of academic programs. Hutchison also leads the Knight Campus internship program and serves as a liaison with OSU and OHSU. Hutchison is the Lokey-Harrington Chair in Chemistry and is the recipient of numerous UO and external awards. He also is cofounder of Dune Sciences, parent company for Defunkify.
Alumni News From All Over

2010s

Jeneva Anderson, PhD ’15, 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 the 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, worked with Diane Hawley at the UO, then at Cal Tech 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, 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, 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, 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: sciedirect.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, 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, 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, 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, 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, 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 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. Thank you!
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, 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, 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, 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, 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

Brian Truong, BA ’07, is now working as an anesthesiologist with the Oregon Anesthesiology Group in Portland.

1990s

Keith Keana, BS ’91, MS ’98, retired from the US Air Force in October 2017 after 25 years active duty service, and moved to southern Michigan along with his family. He now teaches algebra, chemistry, and biology at Spring Branch Academy, a small private Christian homeschool high school that meets at his church in Jonesville, Michigan.

Jon Litty, BA ’97, became a patent attorney and is now practicing in Albuquerque, New Mexico. He plans to reciprocate into Washington State and then into Oregon. He would welcome being able to help any Ducks with patent issues.

Gary Plant, MD FAAFP, BA ’98 was recognized by the Oregon Academy of Family Physicians as the 2020 Oregon Family Doctor of the Year. Plant has been practicing family medicine in Madras, Oregon, for more than 15 years. He is the senior partner of Madras Medical Group, a physician-owned family medicine practice in rural Central Oregon.

Jim Tung, BS ’99, worked for Bruce Branchaud from 1997–99. He earned his PhD in organic chemistry from the University of Notre Dame in 2007. Tung currently works for Lacamas Laboratories, a fine chemical manufacturer in Portland, Oregon, and is a steering committee member of the Oregon Science Startup Forum, a one-day course in science entrepreneurship for scientists and engineers of all experience levels.

Adam Whiting, PhD ’93, lives in Redwood City, California, where he has worked as a patent attorney focused on chemical and life sciences related technologies for 20+ years. He has two daughters (with Jacqueline Steenhuis ’91), the oldest of whom is now attending Southern Oregon University in Ashland. Whiting gets back to Eugene every other year for the Oregon-Stanford football game and occasionally attends Duck games in the San Francisco Bay Area with fellow chemistry alumnus James Leblanc.

1980s

Dave Edlund, PhD ’87, continues to work as founder and CEO of Element 1 Corp., a hydrogen technology company in Bend, Oregon. They develop, patent, and license technology for the clean energy sector (stationary and mobility applications) with both domestic and international partners. He’s also a USA Today bestselling author of award-winning thrillers based largely in Oregon. His seventh full-length novel was released in fall 2020. He lives in Bend with his wife and three dogs, and his son attends UO as a computer science major.

Ruskin J. Gould, BA ’85, aka Reverend Hugh Gould, in July 2019 returned to Oregon after having been in northern England at Throssel Hole Buddhist Abbey for more than 13 years. In September 2019 he moved to the Eugene Priory to be the acting prior while the prior took some much-needed rest and retreat time. For five months he had the pleasure of reacquainting himself with the UO campus, the city itself, and the many residents who came to the priory. In February 2020 he became a resident at the Portland Buddhist Priory.

James Palandri, BS ’87, also earned a BS in mathematics (’89) and a PhD in geological sciences (’00) from the UO. After earning his doctorate, he had a term appointment with the USGS from 2001–04, investigating carbon dioxide sequestration in deep saline aquifers and in other geological repositories. Returning to Oregon in 2004, he also returned to working with thesis advisor Mark Reed working in improving software models. He is also manager of the stable isotope lab in the Department of Earth Sciences.

David Schiraldi, PhD ’82, worked in industry for 20 years and then 18 years at Case Western Reserve University, and is now professor emeritus. He hikes every morning and is enjoying his first grandchild.
Alumni News From All Over

Andrew (Andy) Sylvester, BA ’86, was an undergraduate researcher with professors Bernhard and von Hippel from 1982–84. He was then a research assistant with biology professor Nathan Tublitz from 1986–89, and then began his doctoral studies at the University of Iowa. Since 2002 he has been lab manager of the Louis Picker Lab in the Vaccine & Gene Therapy Institute at Oregon Health & Science University.

Ed Weaver, BA ’88, is now professor of otolaryngology at the University of Washington. He celebrated (virtually) the 2020 UO graduation of his oldest child, Natalie Weaver (BA in math, Latin).

Paul Yager, PhD ’80, is a professor in the Department of Bioengineering at the University of Washington in Seattle, where he’s been since 1987 after a seven-year stint at the Naval Research Laboratory in Washington, DC. He was chair of BioE for five years, and has adjunct appointments in chemistry and global health. After working for years on an extension of his graduate work (structure and function of bilayer-forming surfactants), he converted his optical spectroscopy experience into work on medical diagnostics. About 20 years ago he started early development of the field of microfluidics, and has since worked on developing sophisticated medical diagnostic tools for the point of care using paper-based microfluidic systems. Today his lab works on a disposable home diagnostic test (based on rapid nucleic acid amplification) for detection of the virus that causes COVID-19, and he’s hoping to create a company to commercialize the test and get it into our homes. He gave a TEDx Rainier talk in 2014 that is available on YouTube.

Robert Wah, MD, BA ’79, and his wife Debra Ann Myers (Wah), BA ’80, celebrated their 37th wedding anniversary while sheltering in place due to COVID-19. He is executive director of CovidCheck and board member of The Commons Project. In early March, he was asked to lead a team to build CovidCheck.org.

Brad Wright, BA ’79, is working from home, not quite retired yet, and trying to stay healthy. He stays active by volunteering with the Minnesota Academy of Science and composing music. He has had about two dozen recorder compositions published by the American Recorder Society.

1970s

Gordon Gribble, PhD ’63, is Emeritus Professor of Chemistry who began his 52nd year of teaching at Dartmouth College with the summer course “Organic Chemicals in the Environmental,” which he taught online. Last May, Gribble and another retired colleague were featured in the Dartmouth Dreyfus Symposium on Organic Chemistry. Other Oregon chemistry alumni in attendance were Victor Snieckus, PhD ’65; Frank Meneghini, PhD ’66; and Tim Barden, PhD ’83. Snieckus gave one of the plenary lectures. Besides chemistry, Gribble continues his home winemaking hobby, where he is currently ranked No. 4 on the list of the top 50 US amateur winemakers as judged by the American Wine Society.

Victor Snieckus, PhD ’65, Bader Chair Emeritus (Queen’s University), received the Award for Excellence in Graduate Student Supervision on November 15, 2019. Sadly, Vic passed away on December 18, 2020, after a quiet battle with cancer.

Katie [Catherine] Smith, BA ’69, lives in San Diego and has become active with a charitable organization that helps shelter the homeless and provide job opportunities. She spent much time making face masks at the beginning of the pandemic. She’s also been enjoying taking advantage of all the free opera, symphonic music, and art that has become available online from various organizations during the pandemic.

1960s

Jerry Christian, BS ’59, who ran on the Oregon track team under the famed coach Bill Bowerman, is now retired from Idaho National Laboratory as scientific fellow. At INL he specialized in nuclear fuel processing and was responsible for developing and implementing a new plant process for recovery of enriched uranium from spent naval nuclear fuels. He was the inaugural recipient in 2000 of Idaho Academy of Sciences Distinguished Scientist Award and was instrumental, along with his brother Gary Christian, BS ’59, in creating the Kuntz-Swinehart Memorial Scholarship. He is currently active in supporting nuclear fuel processing technology developments and is owner of Electrode Specialties Company, which manufactures metal electrodes for amperometric measurement of free hydrofluoric acid in acidic fluoride metal-complexing media.

Gary Christian, BS ’59, retired after 30 years as Editor-in-Chief of Talanta, the international journal of pure and applied analytical chemistry. He says, “It was an interesting, challenging, and rewarding experience, with many changes over the years, from snail mail to web-based operation. I am pleased the journal grew to become a top analytical chemistry journal. The digital age created challenges, including ethical ones, as well as new opportunities. It is a new world!”
Honor Roll  Chemistry Gifts, July 1, 2019, to June 30, 2021

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.

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You can now donate securely to the Department of Chemistry and Biochemistry at bit.ly/1BzKaOj
Department Head’s Perspective

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staff found alternative ways to direct them to the help they needed. Through the 2020–21 academic year, our upper division laboratories were largely in-person, with general chemistry and nearly all other courses being offered remotely. For 2021–22, we are moving to mostly in-person classes, while keeping the best pedagogical practices learned from remote teaching to provide better and more flexible experiences for our students.

Over the last year and a half, our department has struggled to come to terms with yet more instances of horrific and unjust acts of violence against Black people as well as the long history of such acts and injustice against Black people, Indigenous people, and all people of color. We have looked inward to better understand our sources of privilege and the feelings of everyone in our community and beyond. We are using this reflection to inform change directed at improving equity and inclusion in our department. Our students have long risen to this challenge through student groups that build community such as those described in the lead article of this newsletter.

In our classrooms, we are working to better incorporate inclusive practices and educate about and confront inequities and bias in science. We have initiated a new seminar series bringing national leaders in both chemical research and in promoting diversity, equity, and inclusion. We are also taking steps to make our physical environments more inclusive and to provide needed support resources. As is so often the case, our alumni are also making a significant impact. A generous donation from Jason Wilson, BS ’11, MS ’12; and Kayla Byerley, BS ’10 (sociology), established a new undergraduate scholarship honoring the eminent chemist Dr. Percy Julian. Julian was the first Black chemist to be inducted into the National Academy of Sciences. Much work remains to be done.

Thank you to all of you for your continued interest in our department and its activities. Always feel free to send me a note or drop by. I welcome the opportunity to learn about your experiences in our department, share with you exciting new developments, or if you have not been on campus for a while, give you a tour.

Mark Lonergan