

UNIVERSITY OF WYOMING
Endowed Faculty Report
From the Office of the Provost/Executive Vice President
Division of Academic Affairs
1 OCTOBER 2024

To the Joint Appropriations and Joint Education Interim Committees

The University of Wyoming (UW) has and continues to benefit greatly from the Excellence in Higher Education Endowment. The Excellence in Higher Education Endowment allows the university to establish state-funded endowed faculty positions to advance teaching and scholarship in the areas of distinction defined in the university's strategic plan. UW has also benefited from state appropriations targeted toward faculty positions in legislatively identified areas of priority the School of Energy Resources positions and the Sustainable Business Practices positions. Furthermore, faculty positions supported (partially or fully) by private endowment gifts through the University of Wyoming Foundation enhance UW's teaching and research programs in areas of mutual interest to the institution and its donors. This report covers all such positions. Part A includes the Excellence in Higher Education Endowment (a continuation of legislative reports prepared annually); Part B encompasses other faculty positions identified in legislative appropriations; and Part C includes privately endowed faculty positions.

Part A. Excellence in Higher Education Endowment Report

[Pursuant to W.S. 21-16-1204]

1. Background

Created in 2006, the Excellence in Higher Education Endowment was funded at \$105 million, the earnings from two-thirds of which, or \$70 million, was designated to the University of Wyoming. Earnings on the state-managed endowment, which are distributed by the state treasurer to the university, allow the university to establish endowed faculty positions (known as Wyoming Excellence Chairs) and to acquire instructional and scholarly materials, classroom equipment, and other resources necessary to support the work of endowed chairs. Distributions to the university are based on a spending policy for FY2024 and was 5.00% of the five (5) year average market value of the corpus.

The statute imposes some constraints on the uses of the endowment earnings. Not less than 2/3 of the amounts shall be used to expand university instruction and research in disciplines related to economic and social challenges facing Wyoming. No fewer than four (4) Wyoming Excellence chairs must be in the College of Education. The remaining earnings shall be used for recruitment and retention of faculty members with established reputations in other areas of distinction as identified in the university academic plan, including business, arts and humanities, mathematics, cultural studies, healthcare, economics, and law.

To initiate the program while the endowment corpus was filling, and pursuant to Senate Enrolled Act 54 Section 1 (c) (ii), the Legislature appropriated \$2.8 million in one-time funds, subsequently reduced to \$1.8 million, to be distributed to the University of Wyoming and expended exclusively for the purposes specified in W.S. 21-16-1202 (b). The one-time appropriation allowed the university to begin filling positions in fiscal years 2007 and 2008. Those initial positions were then funded permanently with earnings from the Excellence in Higher Education Endowment.

2. Summary, history, and accomplishments of authorized positions

Under W.S. 21-16-1204, the University of Wyoming must report annually on faculty positions partially or fully funded through the endowment program, including the name of each faculty member filling a Wyoming Excellence chair, their education and experience, their research and instructional activities, and the benefits of their research and instruction.

The inaugural appropriation became effective July 1, 2006. The provost developed a planning budget for the allocation of positions to be supported with these funds during the 2007-2008 biennium, while the \$70M endowment account began to fill. Based on the planning budget, three (3) searches were authorized with the initial funds: two (2) in the College of Education (fulfilling one-half of the legislative mandate requiring four (4) positions in the College of Education) and one (1) in the College of Arts and Sciences Creative Writing MFA program (aligned with UW's area of distinction Cultural Assets, Arts, and Humanities).

During the second year of that biennium, as more information became available about anticipated payouts to the university from the state-managed endowment account, the provost's office authorized more searches, in two (2) phases. Seven (7) additional Wyoming Excellence endowed positions were authorized during fiscal year (FY) 2008, and five (5) more were authorized in July 2008 for a total of fifteen (15) authorized endowed faculty positions. Four (4) of these fifteen (15) positions were to be funded with earnings combined from both the state account and private endowment gifts to the university, allowing for a greater number of search authorizations and establishing a unique private-public partnership in endowing distinguished professorships.

The decision to authorize the fifteen (15) fully or partially funded positions was based on a budget for salary, benefits, and other position-related costs consistent with the projected payout estimates provided by the state treasurer's office prior to the financial market declines realized later in FY2009. Subsequent financial market events mandated the need to reevaluate the size of the budget and number of permanent positions that could be supported by the endowment earnings. Given the need for exceptional prudence in filling permanent faculty positions, and consistent with representations to the Joint Appropriations Committee, the university placed some of the previously authorized searches on hold through FY2010. At the beginning of FY2011, following careful evaluation of the anticipated earnings stream and the accumulated reserves held in the university account, the provost authorized searches to fill the on-hold positions, including some for a bridging period only in order to ensure that permanent funding commitments would remain in line with the anticipated funding stream. Then, at the beginning of FY2013 based on having received a significantly larger payout during FY2012, as well as enhanced projected payout estimates from the state, and a substantial private gift, the provost was able to complete the originally planned position allocations, and grow the program with additional allocations to Nursing, Law, the Haub School, Native American & Indigenous Studies, and Global Studies.

In FY2024, eighteen (18) and in FY2024 twenty-two (22) positions were fully or partially funded by the Wyoming Excellence Endowment, and additional positions were supported with endowment funds. Although all positions are subject to available funding in any year, the ongoing annual expenses associated with the funded positions were in line with the state projections for annual earnings.

The authorized positions conform to the legislative mandate. The College of Education has four (4) positions, as prescribed by the legislation, all important to the future of K-12 education in the state: two (2) in literacy education, one (1) in science education, and one (1) mathematics education. The strategy for the allocation of the other positions was to coordinate a set of positions in areas of distinction identified in the university's strategic

plan, and professions critical to the state such as business, law, and health professions. In addition, positions were selected for allocation based on the potential to address economic and social challenges in the state.

The allocation strategy is reflected in the following table, and the accomplishments of the currently filled positions and the benefits of their research or instruction to students, businesses, industries, or other Wyoming residents are described in detail below.

Allocation strategy	Number of Permanent Positions	College/Academic Unit	Names
Education	4	Education	Dr. Cynthia Brock, (elementary literacy education), Dr. Richard Kitchen (mathematics education), Dr. Timothy Slater (science education), Dr. Leslie Rush (literacy education)
Economic and Social Challenges facing Wyoming: Energy, Natural Resources, Wildlife Science, Earth Sciences, Health Sciences, Agriculture, Engineering	13	Law/Haub School of Environment & Natural Resources Haub School of Environment & Natural Resources Health Sciences Agriculture, Life Sciences and Natural Resources Engineering & Physical Sciences	Temple Stoellinger (law/energy) Dean John Koprowski (ecology, conservation, & management of biodiversity), Dr. Kevin Monteith (wildlife), Dr. Steven Smutko (collaborative resource management) Dr. Christine Porter (community and public health) Dr. Bryant Smalley (rural health) Dr. Bledar Bisha (food microbiology) Dr. Cynthia Weinig (botany) Dr. David Pascual (brucellosis) Dr. Dario Grana geology/geophysics), Dr. Bryan Shuman (geology/geophysics), Dr. Haibo Zhai (civil engineering), Dr. Mohammed Piri (petroleum engineering)
Other Disciplines important to the state and region and its history and culture: Business, Arts & Humanities, Mathematics, Cultural Studies, Economics, Law	5	Business/Economics Law Arts & Humanities	Dr. David Finnoff (economics), Dr. H. Jo Albers (economics) Dr. Jeffrey G. Covin (management) Danielle Cover (civil legal services/law) Dr. Scott Henkel (humanities)

FY 2024 Accomplishments of Wyoming Excellence Chairs

COLLEGE OF EDUCATION

The four (4) permanent positions that reside in the College of Education focus on literacy, science education, and mathematics education. The individuals who hold these positions are developing and leading nationally recognized programs in these fields and are expected to be magnets for attracting the best and brightest junior faculty and students into these critical areas of teaching need in Wyoming. These positions represent four (4) Wyoming Excellence chairs that are statutorily required to be in the College of Education.

Dr. Cynthia Brock, (Ph.D. in Educational Psychology, Focus: Literacy & English Learners, Michigan State University) ***Wyoming Excellence Chair in Literacy Education***.

Across the past year, Dr. Brock worked with Dr. Kim Gustafson (Interim Executive Director of the Literacy Research Center and Clinic), Dr. Leslie Rush (Wyoming Excellence in Adolescent Literacy Education), and Sara Pommarane (LRCC Distinguished Teacher in Residence) to develop and/or maintain collaborative research/professional literacy learning partnerships in schools in the following Wyoming counties: Teton #1, Fremont #s 6 and 38, and Albany #1. (The LRCC team works with more Wyoming school districts, but the districts listed above are the ones with which Dr. Brock was directly involved.)

Working in conjunction with Ana Houseal, Dr. Brock and Dr. Houseal successfully implemented the seventh year of the College of Education Academic Writing Fellows Initiative. Dr. Brock also chaired two College of Education search committees (LRCC Executive Director & Adolescent Literacy Endowed Chair), and she chaired a Curriculum and Instruction Task Force focused on graduate education in the College of Education. In addition to providing service to the UW College of Education, Dr. Brock provides service at the state and national levels. For example, Dr. Brock is a member of the Wyoming Department of Education English Language Arts Standards Revision Committee. With LRCC colleagues, Dr. Brock co-organized, and co-ran the 2023 Annual LRCC Literacy Conference. Dr. Brock presented to the Wyoming State Board of Education and the WDE Literacy Leaders Coaching Conference. She co-presented at the WDE Literacy Conference, the Wyoming Association of School Administrators Conference, and she collaborated with LRCC and WDE colleagues to create a Literacy Improvement Networking Collaborative (LINC) that involves (a) planning and engaging in statewide book clubs, and (b) co-presenting webinars for the WDE. Working collaboratively with Rob Black & Lori Pusateri-Lane (WDE), the Northern Arapaho and Eastern Shoshone Business Councils, Kim Gustafson (UW), and Dr. Pauline Harris (the University of South Australia), Dr. Brock is leading the K-3 American Indian Education for All Disciplinary Literacy Initiative.

At the national level, Dr. Brock served on the Literacy Research Association Publications Committee, she co-presented three research papers at the Literacy Research Association, and she began her tenure as Vice President of the Literacy Research Association (LRA). LRA is the premier literacy research organization in the U.S. Dr. Brock completed four external reviews for colleagues in the field of literacy seeking promotion from assistant to associate or associate to full professor of literacy at the following institutions: Arizona State University, the University of Hawai'i, Mānoa, Boston University, and Old Dominion University. Dr. Brock helped to sponsor a UW literacy doctoral student to attend the 2023 Literacy Research Association (LRA) Conference.

Dr. Brock co-wrote a Spencer Large Grant with four colleagues (two in Australia, one in New Zealand, and one in the U.K.) Their grant-writing team moved forward into a finalist round of 20 candidates from over 300

applications. She co-wrote one book (with Lexington Press), and she co-edited one international handbook (with Routledge). As well, she co-authored four refereed journal articles, and she wrote or co-wrote six book chapters.

Dr. Richard Kitchen, (Ph.D. Curriculum & Instruction Mathematics Education, University of Wisconsin-Madison) *Wyoming Excellence Chair in Mathematics Education*.

Dr. Kitchen's research is largely focused on developing a problem-solving based instructional protocol that pre-tertiary teachers can use to support their mathematics instruction. The protocol, referred to as the Discursive Mathematics Protocol (DMP), is designed to help teachers simultaneously develop their students' mathematical reasoning and learning of the language of mathematics, often referred to as the mathematics register. In 2023-24, Dr. Kitchen was the lead author of a grant proposal that was submitted to the Institute of Education Sciences (IES) in the U.S. Department of Education. The goal of the IES proposal is to continue the development of the DMP. In the 2023-24 academic year, Dr. Kitchen published three refereed journal articles and made eight professional presentations that included an international presentation at the Thirteenth Conference of the European Society for Research in Mathematics Education (CERME 13) in Budapest, Hungary, an invited talk at the TODOS: Mathematics for All 5th National Conference in Albuquerque, NM, and a presentation at the 2023 Wyoming Native American Education Conference (NAEC) in Riverton. The DMP was shared at the NAEC conference with Wyoming teachers who teach in districts across the state so that they can use the DMP with their students in their classrooms. Dr. Kitchen also helped sponsored two UW doctoral students in mathematics education to present their research at the 2023 School Science and Mathematics Association (SSMA) Convention in Colorado Springs in October 2023.

In 2023-24, Dr. Kitchen continued in his role as the coordinator of both the Ph.D. and Ed.D. degree programs in Mathematics Education at the University of Wyoming. In Fall 2024, 22 students will be enrolled across the Ph.D. and Ed.D. degree programs in Mathematics Education. Seven of these students live and work in Wyoming; 4 teach in mathematics departments at Wyoming community colleges and 3 are leaders in mathematics education in their respective school and/or school district. Dr. Kitchen led the effort to launch the Ed.D. Concentration in Mathematics Education three years ago in Fall 2021, and in Spring 2024, the first student graduated from the program. In the last three years, Dr. Kitchen has served nationally as an external reviewer for the National Science Foundation's Discovery Research PreK-12 (DRK-12), the Swiss National Science Foundation (SNSF), and the Japan Society for the Promotion of Science (JSPS) Joint Research Projects. He is a reviewer for many research journals in mathematics education. For the duration of the 2023-24 academic year, Dr. Kitchen led professional development activities on the DMP for teachers at Knapp Elementary School in Denver Public Schools. In addition, he collaborated with the Los Alamos National Laboratory Math & Science Academy to offer professional learning workshops in mathematics for elementary and middle school teachers.

Dr. Leslie Rush, (Ph.D. Reading Education, University of Georgia) *Wyoming Excellence Chair in Literacy Education*.

In her first year as Wyoming Excellence Chair in Literacy Education, Dr. Rush has applied her broad base of Wyoming connections, her knowledge of adolescent literacy, and her experience as an administrator to service and support for Wyoming educators, families, and communities.

A substantial portion of Dr. Rush's work is engaging in literacy support for Wyoming school districts and other agencies. During the 23-24 academic year, Dr. Rush engaged in the following professional development activities, designed to build Wyoming teacher and administrator expertise in adolescent literacy:

- Sublette County School District 1 (Pinedale). Dr. Rush provided 6 hours of professional development per month throughout the 2023-2024 academic year. This work focused on vocabulary instruction improvement with all middle and high school teachers in Pinedale.
- Teton County School District 1 (Jackson). Dr. Rush served as a consultant with the district's literacy leadership team to support system-wide improvement of literacy outcomes for multilingual learners. This involved biweekly planning meetings and support at monthly meetings of the entire district team.
- Big Horn County School District 1 (Burlington/Cowley). Dr. Rush provided 4 hours of professional development per month throughout the 2023-2024 academic year. This work focused on vocabulary instruction improvement with 15 middle and high school teachers and administrators in Burlington and Cowley.

As an integral part of the service provided to Wyoming by the College of Education's Literacy Research Center and Clinic (LRCC), Dr. Rush participated in literacy-focused district-wide data collection and analysis for needs assessments in Fremont County School District #1, Platte County School District #1, and Big Horn County School District #4.

In addition to the above ongoing work throughout the school year, Dr. Rush made several presentations with organizations and conferences within Wyoming, including

- Wyoming Association of School Administrators (WASA)
- Wyoming Department of Education's Literacy Webinar Series
- Big Horn County School District #1 (Basin) District Professional Development Day
- Wyoming Department of Education's Embracing Literacy Conference
- Wyoming State Board of Education

The School of Teacher Education provides several academic graduate programs that support ongoing learning and improvement for Wyoming classroom teachers. In this regard, Dr. Rush serves as the Program Coordinator for the Literacy Graduate Certificate program. This program is designed for practicing classroom teachers and provides eligibility for teachers to add an endorsement in reading to their existing initial teaching license through the Wyoming Professional Teaching Standards Board. Current enrollment in the Literacy Graduate Certificate program is 35, and Dr. Rush serves as the advisor for all students. Dr. Rush also serves as the Program Coordinator for the MA in Education/Literacy Education program. This distance program, which began admitting students in Summer 22, is designed for practicing classroom teachers; coursework overlaps with and builds on the knowledge base in the Literacy Graduate Certificate program. Current enrollment in this program is 13, with new students applying on a regular basis.

Dr. Rush also contributes to Wyoming educators through her involvement on several ongoing projects, including the Trustees Education Initiatives' Wyoming Teacher Mentor Corps (WTMC), the Wallop Curriculum Project, and the [Wyoming Transitions Program](#), an initiative funded by the Ellbogen Foundation to collect information on Wyoming high school programs designed to support students for post-secondary success. Dr. Rush also published two book chapters during the 2023-2024 academic year, and an article in the widely read *Phi Delta Kappan*. Dr. Rush has two manuscripts currently under review with *Educational Policy* and *Teachers and Teaching*. In addition, Dr. Rush has taken the lead on a proposal for an edited book, with colleagues Cynthia Brock and Todd Reynolds, titled "From Wyoming to the World: Innovative Approaches to Literacy in Rural Contexts," which is currently under review with Routledge. The chapter authors for the edited book are all Wyoming educators and the anticipated audience is made up of educators in US rural schools. Dr. Rush continues to actively present at

national and local conferences, including the Wyoming Department of Education's Embracing Literacy Conference, the Literacy Research Association, and the National Council of Teachers of English.

Dr. Timothy Slater, (Ph.D. Geological Sciences, University of South Carolina) *Wyoming Excellence Chair in Science Education*.

Dr. Slater is a Professor in the College of Education's School of Teacher Education and Adjunct Professor in the Department of Physics & Astronomy. Dr. Slater is a prolific author being cited thousands of times in academic papers from international scholars, having published more than 150 refereed journal articles, 30 books, and presented hundreds of papers at conferences, often with his graduate students as co-authors, describing his scholarly research on understanding the underlying cognitive mechanisms related to teaching and learning in introductory science courses taught to future teachers. An expert in enhancing STEM and Career & Technical Education for high-risk and indigenous students both in Wyoming and across the Pacific-islands, Professor Slater serves as the Editor-in-Chief for the Journal of Astronomy & Earth Sciences Education and is chairing the University of Wyoming Faculty Research Advisory Committee. Winner of numerous high-profile awards—including being distinguished as a Sequoia Fellow of the American Indian Science and Engineering Society (AISES)—he is frequently an invited speaker at education conferences worldwide. In addition to working closely with school districts around the state, he teaches graduate-level courses in evidence-based education research methods and the learning sciences for the College of Education each year to teachers across Wyoming. Along with University of Wyoming graduate students, he further impacts the state by conducting numerous summer and weekend professional development workshops for K-12 teachers across Wyoming. He is collaborating on the pursuit of extramural funding with the UW Center for Controlled Environment Agriculture. This past year, his outreach efforts have focused on expanding a statewide drone education program, featuring workshops at Wyoming professional conferences and community education festivals at Wyoming's Community Colleges, highlighting the teaching of STEM and Career Technical Education in classrooms in the service of enhancing Wyoming's emerging technical workforce.

ECONOMIC AND SOCIAL CHALLENGES FACING WYOMING: ENERGY, NATURAL RESOURCES, WILDLIFE, SCIENCE, EARTH SCIENCES, HEALTH SCIENCES, AGRICULTURE, ENGINEERING

Dr. Bledar Bisha, (Ph.D. Food Science and Technology, Iowa State University) *Wyoming Excellence Chair in Animal Science*.

Dr. Bisha's research focus and interests are on post- and pre-harvest food safety microbiology, environmental microbiology, and public health. His work supports the aim to reduce the burden of foodborne illness, infectious disease, and antimicrobial resistance, using multifaceted approaches, including but not limited to improved diagnostics and surveillance, enhanced processing technologies, and elimination/reduction of the sources of contamination.

Highlights of Dr. Bisha's accomplishments during the 2023-2024 academic year include the acquisition of approximately \$13,639,000.00 in total from three individual projects in external funding to support the research efforts in his group. Funding was awarded from USDA-APHIS and will support research efforts to study and control SARS-CoV-2 as well as other priorities and zoonotic pathogens in wildlife. Funding amounts are among the largest awarded to the College of Agriculture, Life Sciences, and Natural Resources, and will position UW as a national and international leader in infectious disease research conducted at the wildlife/livestock/human

interface. Bisha leads the SARS-CoV-2 wastewater surveillance effort at the University of Wyoming in close collaboration with the Wyoming Department of Public Health and helps provide real-time data to support public health measure statewide. In 2023 and early 2024, he published seven peer-reviewed journal articles, two book chapters, and eleven conference abstracts. In 2023, Dr. Bisha was appointed to the prestigious National Advisory Committee on Microbiological Criteria for Foods (NACMCF) which provides guidance and advice on food safety issues to the federal government. Over the past year, he has mentored a large group of eight graduate and two undergraduate students, two laboratory technicians, three research scientists, and two graduate MCLS rotation students. He has lent his expertise at the national and international level by serving on grant panels for USDA-NIFA, assisting as an external reviewer for multiple tenure and promotion cases, and continuing to serve as a higher education expert and advisor for universities internationally through the READ (Research Expertise from the Academic Diaspora) program. Over the past year, Dr. Bisha has served as the primary instructor for Food Safety as well as other courses in his area of expertise.

Dr. Haibo Zhai, (Ph.D. Environmental Engineering, North Carolina State University) *Wyoming Excellence Chair in Civil Engineering*.

Dr. Haibo Zhai is a Professor in the Department of Civil & Architectural Engineering and Construction Management at the University of Wyoming (UW). Dr. Zhai is also Adjunct Faculty in the School of Energy Resources and the School of Computing at UW and in the Department of Engineering and Public Policy at Carnegie Mellon University (CMU). In addition, Dr. Zhai is Director for the development of the Integrated Environmental Control Model (IECM), a power plant modeling tool developed for the U.S. Department of Energy's National Energy Technology Laboratory (DOE/NETL). The IECM has been used in more than 40 countries since it was housed at UW in 2022. Dr. Zhai has developed an interdisciplinary program of research and education in low-carbon energy and environmental sustainability at UW. Dr. Zhai offers two interdisciplinary courses entitled CE4470/5470 Water for Energy and CE4480/5480 Carbon Capture & Storage for both undergraduate and graduate students. His research program addresses technical, economic and policy issues related to energy and the environment. His research interests mainly include low-carbon energy systems, carbon capture and storage, hydrogen energy, nuclear energy, negative emissions technologies, and the energy-water nexus under carbon constraints for climate change mitigation. In the past academic year, Dr. Zhai's research program sponsored three postdoctoral research associates, three PhD students, one MS student, two undergraduate research assistants, and two part-time research staff members. One of his PhD students successfully graduated in December 2023; Dr. Zhai received three research grants from the School of Energy Resources and the Wyoming Innovation Partnership program (WIP) and had two research proposals under review with the U.S. Economic Development Administration (EDA) and the WIP program. In the meanwhile, he worked on ten research projects. He is leading a new EDA proposal now; Dr. Zhai published six articles in high-profile journals, such as *Nature Water*, *Environmental Science & Technology*, *Energy Policy*, and *Energy Research and Social Science*, and had two journal manuscripts under review & revision with *Nature Communications* and *Environmental Science & Technology*. Dr. Zhai and his team are now developing numerous journal manuscripts. Regarding professional and public services, Dr. Zhai currently serves as a member on the graduate student committee and the ABET committee in the home department and on the UW Faculty Senate Committee's Research Advisory Subcommittee. Currently, he also serves as Special Advisor to Vice President for Research and Economic Development. In addition, Dr. Zhai serves on the advisory board of *iScience*, an interdisciplinary journal of Cell Press.

Dr. David Pascual, (Ph.D. Philosophy, University of Mississippi) *Wyoming Excellence Chair in Disease Ecology*.

Dr. Pascual recently began his faculty appointment at the University of Wyoming in April 2024. He has an extensive background in brucellosis research and vaccine development. He brings more than 25 years of experience working with *Brucella* pathogens and development of mutants as potential live vaccine candidates for livestock. Brucellosis, which can cause abortion in livestock and contaminate milk products, has become problematic for states bordering the Greater Yellowstone Area (GYA). Introduction of brucellosis first occurred in the US during the initial settlement by Europeans with their infected cattle. During the Depression, the US began a brucellosis eradication plan, and with the development of the *B. abortus* S19 vaccine, brucellosis was successfully eliminated from the US using test and slaughter methods and vaccination of seronegative animals. However, *Brucella* was able to spread and infect wild bison and elk herds, which now serves as a reservoir for *Brucella*. Given their ability to commingle, elk can readily infect livestock. To aid Wyoming livestock, Dr. Pascual is continuing his work with brucellosis vaccine studies to develop a suitable vaccine and an optimized vaccination regimen, which will provide improved protection against *Brucella*-induced abortion since conventional livestock vaccines are only 70% efficacious. The basis for his work is the observation that his mutants are highly effective in experimental animals preventing *Brucella* colonization of the animals' tissues. These new mutants were shown to be >1,000 times more efficacious than conventional livestock vaccines.

Much of brucellosis vaccine work has relied on parenteral, e.g., subcutaneous, injections with conventional vaccines, and mostly done for ease of administration. Regardless of the route of exposure, *Brucella* readily disseminates systemically, resulting in its sequestration into the liver and spleen to cause recurring bouts of infection or chronic disease. *Brucella* has numerous stealth capacities to evade the host's immune system to enable to persist. However, we have found that our mutants lose many of their stealth properties, and now become recognizable by the host leading to stimulation of multiple arms of the immune system to clear the infectious *Brucella*. The heightened ability by our mutants is believed to be attributed to mucosal vaccination. In fact, mucosal vaccination is a much-preferred route to immunize, since *Brucella* usually crosses a mucosal barrier to infect. We believe that arming the mucosa with immune lymphocytes can confer superior protection against wild-type, virulent *Brucella* infection.

Dr. Pascual seeks to build his research team to help tackle the brucellosis problem. He will offer research opportunities for undergraduate and graduate students to learn basic tenets of mucosal immunology and infectious diseases. Infectious diseases will be with us for time to come, and these training opportunities will provide students with theoretical and practical knowledge on how to address future problems in brucellosis and other infectious diseases.

Dr. Dario Grana, (Ph.D. Geophysics, Stanford University) *Wyoming Excellence Chair and School of Energy Resources Associate Professor in Geology and Geophysics*.

Dr. Grana's research areas of expertise include numerical modeling and data science methods applied to geophysical datasets for exploration and exploitation of energy and natural resources. Subsurface geophysical characterization aims to predict rock and fluid properties to identify, locate, and quantify energy and natural resources underground, and characterize their abundance and spatial distribution. Geophysical data and numerical methods are combined in computational models that are used to discover energy and natural resources and monitor the temporal variations of physical properties and Earth's processes. Dr. Grana's research group studies and develops advanced data science algorithms and computational models to estimate the rock and fluid behavior in oil and gas, carbon dioxide storage, geothermal energy, and groundwater aquifer studies. Dr. Grana's studies include applications to a carbon sequestration and monitoring project near Rock Springs WY and a groundwater study in a mountain watershed near Laramie WY. Dr. Grana's research improves the accuracy of the model

predictions and reduces the uncertainty of the model forecast. Dr. Grana published 11 peer-reviewed papers in 2023-24 and delivered several talks in universities and international conferences. Dr. Grana currently teaches three classes in the Department of Geology and Geophysics and the School of Energy Resources: an undergraduate class on quantitative methods in geosciences, a graduate class on numerical modeling in geoscience, and a graduate class on physics of rocks and fluids. Dr. Grana's classes contribute to the formation of the new generation of scientists, including geoscientists and engineers who aim to work in the sector of energy and natural resources.

Dr. John Koprowski, (Ph.D. Biology [Systematics and Ecology], University of Kansas) *Wyoming Excellence Chair in Environment and Natural Resources*

Dean Koprowski joined the University of Wyoming as a Wyoming Excellence Chair in October 2021, moving from the University of Arizona where he had spent 20 years ending as the Director of the School of Natural Resources & the Environment. He is a Certified Wildlife Biologist (The Wildlife Society) and is an elected Fellow of the American Association for the Advancement of Science, The Wildlife Society and the Linnean Society of London, and in 2023 The Explorer's Club becoming the first person to be elected to Fellow status in these 4 organizations. He also presented a keynote at The Wildlife Society's annual conference in Louisville after receiving the organization's highest honor the Aldo Leopold Memorial Medal and Award for his lifetime of achievements in the conservation and management of wildlife. His scholarship focuses on community-based conservation approaches to wildlife management that involve local people in creating sustainable solutions...an excellent match with the Haub School's mission to make a difference for our wild and working lands through interdisciplinarity and collaboration. He was also elected President of the American Society of Mammalogists, a professional society of nearly 3,000 scientists, and is about to complete his first year as President-Elect. His commitment to provide training through such approaches to UW students continues with his mentorship of six graduate students, 3 undergraduates and 1 postdoctoral researcher in his research laboratory. In 2023-24, Dean Koprowski published 14 peer-reviewed articles and book chapters as well as a book, *From Local to Global: Eco-entrepreneurship and Global Engagement with the Environment*. Dr. Koprowski joined with UW's office of global engagement to initiate international partnerships that will provide numerous opportunities for our students in Mongolia and Uzbekistan and presented invited talks on the importance of conservation partnerships to rotary clubs, community organizations and universities in the USA and Mongolia. He led the UW Alumni and Friends Tour to Mongolia in late spring 2024. Dean Koprowski is honored to serve as a Wyoming Excellence Chair and continues to seek expanded impact through partnership and collaboration.

Dr. Kevin Monteith, (Ph.D. Biological Sciences, Idaho State University) *Wyoming Excellence Chair in Environment and Natural Resources*

Monteith holds an appointment in the Haub School of Environment and Natural Resources, with a joint appointment in the Wyoming Cooperative Fish and Wildlife Research Unit and the Department of Zoology and Physiology. Monteith joined the faculty at the University of Wyoming in 2015 and was named a Wyoming Excellence chair in 2021. Monteith's research program is focused on addressing important, timely, and often vexing questions in natural resource management to offer sound insight into strategies for wildlife conservation while simultaneously striving to advance scientific thought. His research group, the [Monteith Shop](#), works hand-in-hand with natural resource agencies to address questions that have direct links to land and population management, and maintain strong ties to non-profits and foundations within the state and beyond. Support in external funding was \$1.5 million in 2023. Monteith's collaborative research was featured in 11 scientific publications in 2023, ranging from top ecological journals to more applied outlets. Moreover, Monteith's program

works hard to communicate findings not only to the scientific community, but also to stakeholders outside of the academic community who interface with wildlife policy. And in addition, they work hard to make science accessible to the public, participate in multiple K-12 classroom visits, and continue to develop educational pieces for K-12 classrooms. Monteith served in multiple townhall meetings at the behest of the Governor of Wyoming to communicate to the public the realities of the 22-23 winter for ungulate populations in western Wyoming. The Wyoming Wildlife Fellowship Program was initiated in 2021, is a collaborative endeavor between the Monteith Shop in the Haub School and the Wyoming Game and Fish Department. It is in its third successful year to provide immersive and experiential opportunities to undergrads in a natural resource field. The program provides fellows with direct links to field opportunities, seasonal jobs, dedicated instruction to bolster critical thinking and soft skills associated with communication, a generous stipend, and ideally, produces high-end graduates that are prepared for a career and highly competitive in the job market. During 2023, one of Monteith's graduating PhD students was awarded the 'Outstanding Dissertation' award by the University of Wyoming. Monteith was named a Fellow of The Wildlife Society in recognition of exceptional service to the wildlife profession. Monteith is honored to serve as a Wyoming Excellence Chair and blessed to continue to serve the state of Wyoming and her natural resources.

Dr. Mohammad Piri, (Ph.D. Petroleum Engineering, Imperial College London) *Wyoming Excellence Chair in Petroleum Engineering and Thomas and Shelley Botts Endowed Chair in Unconventional Reservoirs in the College of Engineering and Applied Sciences and Alchemy Sciences Petroleum Engineering Chair.*

In the 2023-2024 fiscal year, Prof. Piri and members of his research group disseminated their research results through approximately sixteen (16) papers published (or accepted for publication) in peer-reviewed journals and with at least fifteen (15) more manuscripts that are either submitted or in preparation. Prof. Piri and his research team continued further development of the world's most advanced Center of Innovation for Flow through Porous Media (COIFPM) located at University of Wyoming's (UW) High Bay Research Facility. In this period, he, in close collaboration with The Dow Chemical Company, established Phase-2 of The Wyoming Gas Injection Initiative (WGII) with a \$25 million investment (to be matched dollar-for-dollar to become \$50 million) in research and field pilot testing projects. The Initiative has been approved to receive the funds from the State of Wyoming (State) to implement, in close collaboration with Dow and oil and gas operators, multiple field pilot projects in the State of Wyoming. Under Phase-1 of WGII, and using a carefully designed, multi-stage process, Prof. Piri announced four (4) oil and gas operators whose applications, for gas injection based enhanced oil recovery (EOR) pilots in Wyoming, had been selected to receive support under this initiative. The initiative involves field pilot testing of advanced EOR technologies, such as foam-assisted gas injection using recovered hydrocarbon gases, carbon dioxide, or other gases, for revitalization of oil fields as well as mitigation of greenhouse gas emissions by operations in the State. It also includes laboratory-scale de-risking of the recovery schemes at the world-leading Center of Innovation for Flow through Porous Media of the University of Wyoming. This grant will fund projects over a 3-to-5-year period to enhance well productivity and recovery from existing fields/well in the State that are in significant decline. Prof. Piri also took the lead to develop a long-term, strategic partnership (budgeted at \$105 million in two phases over at least 10 years) with a major corporate partner, Thermo Fisher Scientific (TFS). Uniquely supported by TFS (\$75 million over two phases) and the State of Wyoming (\$40 million in Phase 1), this alliance aims to foster pioneering research and technological advancements in the energy and environment sectors, driving sustainable innovation in the State of Wyoming and by extension elsewhere in the county and the world. The primary goal of the initiative is to develop, adopt, and expand cutting-edge experimental and computational porous media technologies in support of strategic economic development initiatives. Furthermore, Prof. Piri established a \$15 million project sponsored by ACU Energy, LLC. This program will focus on research and technical services activities relevant to enhancement of hydrocarbon recovery

from different conventional and unconventional reservoirs using chemical additives and various EOR techniques. Prof. Piri's external research funding exceeds \$100 million. His research group currently includes more than fifteen (15) Ph.D. students, at least ten (10) post-doctoral research associates, and four (4) staff members. In this period, Prof. Piri recruited at least nine (9) high-caliber PhD students, most of whom have significant opportunities to also learn from graduating students. During the 2023-2024 fiscal year, COIFPM held numerous preliminary exams and final thesis defense sessions for its Ph.D. students. Prof. Piri graduated, in collaboration with his colleagues at UW, eight (8) Ph.D. students. He taught two classes: 1) Flow through Porous Media and 2) Hydrogen Geostorage. Prof. Piri's specialty is multiphase flow through porous media with applications in oil and gas recovery from unconventional and conventional reservoirs, pore-scale modeling of displacement processes, wettability, CO₂ sequestration and leakage, and Hydrogen storage. Prof. Piri's expertise and research findings have direct relevance to enhancing oil and gas recovery from the reservoirs in the State of Wyoming and elsewhere. Since joining UW in 2005, he has designed, installed, integrated, and commissioned three unique research facilities that have put the University of Wyoming at the forefront of research in the area of flow through porous media. These research facilities include Encana Three-Phase Flow and Computed Tomography Research Laboratory, Hess Digital Rock Physics Laboratory, and the Center of Innovation for Flow through Porous Media. These platforms provide UW students with exceptionally rich research and educational experiences that are seldom available elsewhere. Prof. Piri also leveraged these to attract three new faculty members to the Petroleum Engineering program at UW. Furthermore, he has been diligently working on commercialization of the technologies developed in his research group at the University of Wyoming. This has been made possible by a spin-off company, Piri Technologies, LLC, in Laramie, Wyoming. UW is an equity owner of this company. This entity provides distinctive technical services in the broad area of Flow through Porous Media. Through this initiative, Prof. Piri has established an avenue for diversification of the economy in the State of Wyoming as well as creating job opportunities for UW graduates and others. Since the start of its operations in September 2017, Piri Technologies has developed several projects with large national and international corporations. This indicates that its technologies are relevant globally. It currently employs seven (7) full-time and two (2) part-time, highly talented professionals with advanced degrees. Six (6) of these full-time employees are University of Wyoming graduates. Furthermore, in March 2022, and in close collaboration with UW, Prof. Piri founded a second company (Digital Pore Solutions, LLC) as a subsidiary of Piri Technologies, LLC to commercialize software-based Intellectual Properties conceived in his research group. The entity is focused on digitizing porous materials and computing flow and transport in them. Prof. Piri successfully developed a series of agreements with UW to formalize the initiative. The new company is focused on the computational aspects of flow through porous media taking advantage of high-performance computing and data processing and visualization techniques, state-of-the-art multi-GPU systems, and other advanced methods and hardware. Prof. Piri is currently the President of Piri Technologies and Digital Pore Solutions. Since the start of its operations in mid 2022, Digital Pore Solutions has developed, in close collaboration with Piri Technologies, several projects that are focused on application of Digital Rock Technologies in real-world field development projects. It currently employs six (6) full-time, highly talented professionals with advanced degrees.

Dr. Christine M. Porter, (Ph.D. Community Nutrition, Cornell University) *Wyoming Excellence Chair in Community & Public Health.*

Dr. Christine Porter has been with the Division of Kinesiology & Health since 2010 teaching about public health and food systems and leading action and research in those areas with support from over \$8 million in external funding. One publication this year bolsters the special journal section published last year on solving college student food insecurity with data from UW students. The online graduate certificate in community and public health that the UW Board of Trustees approved in 2021 is thriving. With the food system network IINFAS,

Intertribal Agriculture Council, and Tuskegee University, Porter collaborated on another successful year of mentored fellowships for US minoritized graduate students in food systems. Porter was given the 2024 College of Health Sciences Meritorious Service Award.

Dr. Bryant Smalley, (Ph.D. PsyD. Clinical Psychology, Nova Southeastern University) *Wyoming Excellence Chair in Rural Health*.

Dr. Smalley is a licensed clinical psychologist and rural health expert whose work focuses on collaboratively identifying and addressing health inequities that particularly impact rural communities. Dr. Smalley joined the University of Wyoming in Fall of 2022 and quickly began seeking funding to support rural-focused work to improve health in Wyoming communities.

During FY24, Dr. Smalley continued to serve as the Executive Director of the Wyoming Rural Health Institute and substantially grew his external funding portfolio. Dr. Smalley continued to direct the \$3 million federal Health Resources and Services Administration (HRSA) funded Community Health Worker (CHW) Training Program, which is a statewide collaborative for a new certified healthcare profession within the State that allows individuals with a high school diploma or GED to become a part of the healthcare workforce through the training program. CHWs are members of communities disproportionately impacted by health conditions who become trained advocates for their community members, helping them navigate their healthcare system, access resources, and learn how to best manage their health conditions. The fourth cohort of trainees recently enrolled in the program, and the initiative is in the process of establishing a registered apprenticeship program to further expand its training efforts. In addition to the CHW program, Dr. Smalley continued to lead the \$375,000 Direct Relief Fund for Health Equity initiative working to increase access to chronic disease self-management services in Laramie, Casper, and Cheyenne, with a particular focus on providing services to individuals who are not otherwise able to access care.

Dr. Smalley also received substantial new funding, including a \$5.2 million grant from the federal Health Resources and Services Administration (HRSA) for the Wyoming Maternal Health Innovation Program (WYMHIP). WYMHIP aims to reduce maternal mortality and severe maternal morbidity throughout Wyoming. The grant is a close collaboration between the Wyoming Rural Health Institute and the Wyoming Department of Health's Public Health Division to research new ways to improve clinical care, workforce development, data collection and community engagement surrounding maternal health. Key activities in the initiative include the formation of the Wyoming Maternal Health Task Force; partnering with the state to create a comprehensive innovation-driven maternal health strategic plan for Wyoming; enhancing data collection surrounding maternal health; and designing and researching the impact of innovations developed specifically to meet the unique needs of Wyoming's rural and frontier maternal health landscape. Dr. Smalley also received notification that he was awarded a contract with the State of Wyoming in the amount of \$179,255 to expand the availability of training in evidence-based chronic disease self-management techniques, with the contract currently in signature stages for an early FY25 launch.

During the fiscal year, Dr. Smalley also submitted numerous additional grants totaling more than \$15 million that would bring substantial research infrastructure support to UW if funded and has additional grant opportunities that will be submitted prior to the end of the fiscal year.

Dr. Smalley also completed the second edition of his seminal text *Health Equity: A Solutions-Focused Approach* published by Springer Publishing Company after it exceeded all performance expectations in the first edition. The new edition is now in the production stage and will be published in late 2024 or early 2025.

In summary, in his second year as Wyoming Excellence Chair in Rural Health, Dr. Smalley received an additional \$5.4 million in funding to bring his total active portfolio to \$9 million and continues to submit and receive funding to support rural health research at UW. His efforts have received national recognition through the completion of the second edition of an important text, and his work also has statewide impact in numerous areas of high importance (including workforce and maternal health), engaging partners from all areas of the state.

Dr. Bryan Shuman, (Ph.D. Geological Sciences, Brown University) *Wyoming Excellence Chair in Geology and Geophysics.*

Dr. Shuman has taught in the Department of Geology and Geophysics at the University of Wyoming since 2007 and works with undergraduates, graduate students, and post-docs to study the geological record of past climate changes and their influence on water and ecosystems. Shuman has published over 125 peer-reviewed journal articles, including 10 new publications in 2023. His past awards include a National Science Foundation CAREER award. Shuman is currently co-leading a \$20 million grant from the National Science Foundation EPSCoR program, which focuses on anticipating climate-related risks to the state. The project supports UW faculty and students in disciplines from atmospheric science to economics and enables them to work directly with Wyoming communities to anticipate and respond to ongoing changes and future risks. As part of this project, Shuman coordinated a stakeholder workshop on the future of the Snake River at the Grand Teton National Park visitor center in Moose in April 2023. The project also involves an ongoing teacher-researcher exchange program, through which Shuman met with K-12 teachers from Rock Springs, Pinedale, Casper, and Jackson to help develop science curriculum materials and research activities; coordination took place during a multi-day retreat at the Teton Science School as well as monthly via Zoom. Shuman likewise presented results from the Greater Yellowstone Climate Assessment, which he helped to lead to groups across the state including Casper, Lander, and Jackson.

Shuman's research includes placing recent temperature, drought, snowpack, and wildfire trends in the long-term context of natural environmental variations recorded by geological evidence since the last ice age. For example, in 2023, Shuman, his students, and their collaborators examined the history of wildfires over the past 3000 years across the Rocky Mountains from Montana to Colorado. This work, as well as another ongoing project focused on past changes to Wyoming's permanent snowfields, highlights how climate variations pose risks to critical natural resources. Ongoing work by Shuman's post-doctoral researchers focuses on compounds left by microbes in soils, wetlands and lakes across the state, which can indicate past temperatures. These compounds form the basis for >11,000-year records of temperature from places such as the Snowy Range, the Beartooths, and the Teton, which provide context for understanding changes in the frequency and severity of past wildfires, droughts, and snowpack changes. These cutting-edge analyses use new geochemical instrumentation purchased with support from one of Shuman's grants from the National Science Foundation and leverage the labs in UW's new Science Initiative Building labs. The temperature histories generated from this work also provide benchmarks for testing climate model simulations, run at the Wyoming NCAR supercomputing facility in Cheyenne, by providing test cases from the past for comparison with computational projections of the ancient climates.

Dr. L. Steven Smutko, (Ph.D. Economics, Auburn University) *Wyoming Excellence Chair and Eldon & Beverly Spicer Chair in Environmental and Natural Resources*.

Dr. Smutko carries out a research, teaching and outreach program in policy development and public decision-making in natural resources management. He also serves as the Associate Dean for Academic Programs in the Haub School of Environment & Natural Resources. Dr. Smutko's outreach work focuses on engaging with local governments, state and federal agencies, and the private and nonprofit sectors to enhance participatory decision-making on complex and often contentious environmental and natural resource policy issues. Dr. Smutko's research activities focus on understanding how collaborative processes can lead to better public policy decisions. In FY 24 Dr. Smutko served as a Co-Investigator on a Department of Energy grant (Engaging Wyoming Communities in an Environmental Justice Approach for Advanced Nuclear Energy Facility Siting, CFA-22-27138), and as Senior Personnel on another DOE grant related to consent-based siting of spent nuclear fuels. For his outreach work Dr. Smutko served as co-leader in organizing and leading the University of Wyoming's role in Governor Gordon's Rock Springs RMP Task Force. The purpose of the Task Force was to develop consensus recommendations to the Governor to assist him in his negotiations with the Bureau of Land Management on the final draft of the Rock Springs Resource Management Plan. He also convened the "Ripples Across Wyoming" a symposium to foster collaboration in natural resource management decisions. Dr. Smutko taught courses in negotiation, and negotiation analysis at UW. He also oversees the Collaboration Program in Natural Resources, a yearlong series of professional development workshops attended by natural resources professionals in the public, private and nonprofit sectors in Wyoming and adjacent states.

Temple Stoellinger, (J.D. with honors, University of Wyoming College of Law) *Wyoming Excellence Chair in Law & Haub School*.

Temple Stoellinger is an Associate Professor and Wyoming Excellence Chair in the Haub School of Environment and Natural Resources with a joint appointment at the College of Law, where she is also the Co-Director of the Gina Guy Center for Law and Energy Resources in the Rockies. She oversees the Haub School's JD/MA program, a joint master's degree offered in collaboration with the Law School, and she is also an Adjunct Faculty member with the School of Energy Resources. Professor Stoellinger's teaching, research, and outreach, which focus on environmental and natural resource law and policy, continue to have a direct and impactful benefit to the State of Wyoming.

During the Fall 2023 semester, she taught Environment and Natural Resource Law and Policy, Public Land Law, and NEPA Law and Policy. During the Spring semester, she taught Canyonlands: Climate, Culture, and Water, which involved a field component that included 8 days rafting on the Colorado River through the Grand Canyon.

Professor Stoellinger's scholarship continues to focus on environmental and natural resource law and policy, with emphasis on wildlife law and policy, public lands, state trust lands, and energy law and policy. Highlights of her scholarship this past year include the publication of three articles: one on voluntary conservation opportunities associated with federal land grazing, one on conserving wildlife and biodiversity in the US and EU, and one on valuing conservation on state trust lands. She and her law student research assistants also authored a comprehensive report that explores the potential of using conservation easements to support bison restoration and land conservation on the Wind River Indian Reservation, providing valuable insights for similar initiatives in other Tribal contexts. Professor Stoellinger continued contributing to major ongoing research projects on wildlife migration and consent-based advanced energy siting.

In the fall of 2023, Professor Stoellinger was asked by Wyoming Governor Mark Gordon to lead his task force on the Rock Springs Resource Management Plan (RMP). The task force, which included a diverse group of stakeholders, was charged with providing recommendations to the BLM on the development of the Rock Springs RMP. The task force's efforts culminated in a comprehensive report submitted to the BLM, which included recommendations on a wide range of issues, including energy development, wildlife conservation, and recreation management.

In the outreach and service domains, Professor Stoellinger organized the 2024 Landscape Discussion on Energy Law and Policy conference and co-organized an international workshop on transboundary wildlife conservation, laying the groundwork for a larger conference in 2025. Professor Stoellinger also increased her leadership roles in professional organizations, notably being elected as a Trustee for the Foundation for Natural Resources and Energy Law, being selected to serve on the American Bar Association's Editorial Board for its Natural Resources and Environment publication and being named as a Senior Fellow at the Property and Environment Research Center.

Dr. Cynthia Weinig, (Ph.D. Ecology, Evolution, and Behavior, Indiana University) *Wyoming Excellence Chair in Botany*.

Dr. Weinig is a Professor in the Departments of Botany and Molecular Biology, and in the Program in Ecology. Her research focuses on plant evolutionary genetics, that is, the genetic underpinnings of plant performance in natural or agricultural settings. In the past year, she led as the Principal Investigator a \$3.5M NSF Plant Genome award testing how microbes may promote growth of crop plants. Dr. Weinig's research funded by the WY Excellence Chair in the past year also focused on the interaction between plants and microbes. This research was applied specifically to microbes that interact with crops grown in controlled environment agriculture (CEA) settings, seeking to characterize all entry points of microbes into these environments and manipulate microbes to improve both crop growth and nutritional quality. Dr. Weinig submitted two NSF proposals related to this work in the past year.

By way of background: When growing in agricultural or natural field settings, plants interact with complex microbial communities. As many as ten billion microbial organisms are present in each gm of soil, meaning that soil in the immediate proximity of plant roots harbors abundant microbial life and is the site of continuous host plant-microbe interactions. Not only are microbes highly abundant in soil, but also their communities are exceptionally diverse, with a gram of soil including thousands to tens of thousands of microbial species. As a consequence of this taxonomic diversity and associated differences in their functions, microbes can have pronounced negative or positive effects on the growth of plants with which they interact. Her research seeks to identify both the plant traits that may attract beneficial microbes as well as the plant growth responses to the presence of microbes. Notably, her research aligns with the growing state investment in CEA.

Dr. Weinig's lab hosted several UG researchers in the past year as well as several graduate students and postdoctoral fellows as collaborators on her research. Further, plant-microbe research was used to illustrate multiple concepts in a large-enrollment undergraduate class, Genetics (LIFE 3050) that she teaches; direct application such as these are known to enhance student engagement, learning outcomes, and retention. Dr. Weinig also teaches an upper-division course in Plant-Microbe Interactions. Lab members published multiple papers in the past year on plant-microbe interactions in top-tier subject area journals, and past students have entered jobs at Plenty and West Inc as well as federal agencies and academia.

OTHER DISCIPLINES IMPORTANT TO THE STATE AND REGION AND ITS HISTORY AND CULTURE: BUSINESS, ARTS & HUMANITIES, MATHEMATICS, CULTURAL STUDIES, ECONOMICS, LAW

Dr. Heidi J. Albers, (Ph.D. Economics, University of California at Berkeley) *Wyoming Excellence Chair in Economics*.

In the 2023-2024 academic year, Dr. Albers taught her core PhD course in Natural Resource Economics and her advanced undergraduate course in Environmental Economics. Her teaching benefits students by giving them strong decision analytic tools that empower them to make well-developed arguments for their positions, improve their decision-making, and help them achieve employment success. To further foster students' educational growth, Dr. Albers used her Excellence funding for graduate students and recent graduates for various experiences including fieldwork in low-income countries, summer work, conference presentation experience, and publishing, which provides students with important learning/networking, develops marketable skills, and deepens understanding of tools and issues. The funding enriches the students' educational programs by enabling them to explore topics and develop skills differently than classroom work and by providing experience with analytical tools that employers value. Through these experiences, students become stronger contributors to Wyoming's economy and resource management debates. In 2023-2024, Albers advised, or served on the committees for, 3 graduate students and mentored former students as they navigate their careers. She also served as a mentor to students and junior faculty on campus and worldwide, as through her work with women in economics through the Environment for Development Initiative's WinEED and the ASSA's CSWEP, her role at Lulea, and her role as an AERE Scholars Mentor. She also conducted Center Reviews at 2 EfD Centers (Ghana and Nigeria). Albers is also a member of UW's Africa Cohort, which acts to bring faculty and students from across campus together to build an on-campus network of Africa specialists for research, advising, and teaching and to develop community.

Dr. Albers maintains an internationally respected research agenda based around determining biodiversity conservation and resource management strategies that integrate socio-economic, ecological, and institutional characteristics of the setting. Her current projects include analysis of pollinators and pest-control services, migratory species conservation policy, reserve siting with consideration of people's threats, and marine conservation and livelihoods. In 2023-24, she gave 7 research presentations, with two in international settings. Her contributions to the economics, policy, and interdisciplinary literatures through editorial roles (at the *Environmental and Resource Economics*, *Ambio: A Journal of the Human Environment*, *Conservation Biology*, and *Environment and Development Economics*) enable Albers to lead research in important directions and to raise the visibility of UW's research and programs. Dr. Albers had accepted or published 4 peer-reviewed or refereed papers and was invited to write 3 articles that reflect her senior status in the areas of spatial resource economics, REDD+, and protected area design for biodiversity conservation. In 2023-24, Albers also conducted fieldwork to define new conservation research programs in Ghana and Indonesia. Recent fieldwork in Indonesia, Ghana, and India has informed new research directions that connect women's rural livelihoods through textiles to environmental conservation and green production certification.

Danielle R. Cover, (J.D. *Cum Laude*, Tulane University School of Law) *Wyoming Excellence Chair in Law, Director of the Civil Legal Services Clinic*.

Professor Cover is the Director of the Civil Legal Services Clinic at the College of Law. During the 2023-24 academic year, Professor Cover taught the following courses: Civil Legal Services Clinic (Fall, Spring); Judicial

Remedies (Fall); Professional Responsibility (Fall); and Legal Writing II (Spring). In addition, as she has done every summer since her hire, Professor Cover taught the Civil Legal Services Clinic over the summer break in 2023. Professor Cover was selected by the Wyoming Institute for Humanities Research to participate in the 2023-24 Democracy Lab cohort. She spent her fall and spring semesters working on a project that she presented in April 2023 at the Democracy Lab Symposium. A corresponding article will be published online in *Experiments in Democracy*. Professor Cover presented numerous times on her Spring 2023 sabbatical project including at the Ellbogen Center for Teaching and Learning fall Teaching and Learning series and as a guest presenter for the WySci/SciComm graduate student cohort.

As Director of the Civil Legal Services Clinic, Professor Cover continues to expand the substantive case law offerings to low-income residents of the State of Wyoming. The CLSC is a trusted and well-respected legal service provider in the state and has a close relationship with Equal Justice Wyoming, the primary funder for legal services within the state. In addition, judges in multiple counties have contacted the CLSC directly to provide representation in complex litigation involving some of Wyoming's most economically vulnerable clients. In addition, the CLSC continues to provide services to transgender students on campus in a joint project with the ASUW.

Professor Cover's work has a direct positive impact on the State of Wyoming. The number of Wyoming residents eligible for free legal services continues to increase in the face of economic difficulties in the state. As one of the largest providers of pro bono legal assistance in the state, the Civil Legal Services Clinic works diligently to develop and direct the rich resources of Wyoming's College of Law toward promoting access to justice for low-income individuals. When vulnerable populations receive direct legal representation and community education, many members of those populations can overcome severe barriers to maintaining financial stability. The clinical experience promotes a practical, holistic legal education to students while re-affirming a strong commitment to public service. A semester in the CLSC also increases awareness among matriculating law students of the vast need for legal representation for people living in poverty. This in turn can influence the willingness of law students to incorporate pro bono or low bono legal assistance into their legal careers, regardless of their ultimate practice choices. Students experience first-hand how economic independence and income stability improve not only the lives of their clients but the functioning of entire communities. In-person meetings with clients and relationships with local judicial bodies, together with community outreach and education that takes the students where the clients live, work, and build their families, amplifies the benefits the CLSC program offers. Because a significant proportion of College of Law students remain in Wyoming, many returning to the small towns from which they came, they can provide access to the legal system in ways they may not have anticipated.

Professor Cover will step out of the Civil Legal Services Clinic in August 2024 to join the legal writing faculty full time.

Dr. David Finoff, (Ph.D. Economics, University of Wyoming) *Wyoming Excellence Chair in Economics.*

Dr. Finoff returned to his alma mater 20 years ago, and two years ago was honored to be named a Wyoming Excellence Chair and McMurry Fellow. For the academic year 2023-24, Finoff continued to work on teaching, research, service, and outreach. Finoff taught a course for graduate students in Spring 2024, the core graduate class "Dynamic Optimization." The class introduced new tools (theory and computational) that graduate students might direct at their own research questions, where Finoff worked to try to increase the relevance of the material to potential research areas for the students across natural resource economics, energy economics, health economics and economic growth. Finoff spent considerable time and effort adjusting the content of the course

to better prepare the students for their PhD comprehensive examination. In Fall 2023 Finnoff taught parts of 2 courses: a solo course of mathmicro economics, and 1/3 of a team taught (with Alex Gebben and Klaas van 't Veld) computational economics. Math microeconomics and computational economics are dual listed at the undergraduate and graduate levels (although predominately taken by undergraduate students). In mathematical economics, Finnoff pushed to further integrate numerical analyzes throughout all parts of the course and worked to help the students gather a theoretical and computationally comprehension in the techniques and tools. Computational economics is a team-taught class with the goal of providing our students a working basis of tools in computational data analysis. Finnoff's component of the class is a rigorous section on regional economic impact and policy analysis (using IMPLAN data and the GAMS software package) with the intent of building a computable general equilibrium model of the Wyoming economy and using it to analyze the impact of a policy (or phenomena) of the students' choice. In this, the students have recently focused their work on analyzing the impact of alternative statewide public finance policies for the State of Wyoming (such as the regional impacts of changes in the structure of the tax base for Wyoming). While the development of the material was intensive, the students appear to get a tremendous amount out of the course. Finnoff also chaired or co-chaired the Ph.D. committees for several PhD students, advises numerous recent graduates to help them with their research program and serves on the committees of several Ph.D. and MS candidates. Dr Finnoff's research program focused on developing public policies to improve social welfare, taking into account the coupling between human and natural systems. His research seeks to understand (1) how coupled human and natural systems co-evolve over time and space in the presence of uncertainty and market failure, and (2) how economics can use information about the coupling between human and natural systems to construct public policies in the face of uncertainty that can correct market failures and move society towards more sustainable outcomes. Finnoff continued work as a Principle Investigator (with other COB colleagues) on a \$1 million grant from the National Science Foundation (RAISE:IHBEM Understanding and predicting behavioral responses to infectious disease risks and control policies: implications for epidemiological models and policy design) and as a CO-PI on a \$20 million NSF-EPSCOR grant for UW (WY-ACT: Anticipating the climate-water transition and cascading challenges to socio-environmental systems in America's headwaters). Finnoff also continued to work towards completion on a \$1million NOAA grant (Thresholds in a changing ocean environment: bioeconomic implications to inform adaptation decisions for Alaska's salmon fisheries); on a \$0.5million USDA grant (A Bioeconomic Approach to Managing Brucellosis and CWD risks in the Greater Yellowstone Area), and a \$1million NSF grant (Predicting Emergence in Multidisciplinary Pandemic Tipping-points (PREEMPT)). Finnoff also ended up with 7 refereed publications for the year. Finnoff's research was in 2 rough areas for the year – natural resource economics and public health economics concerning policy guidance in the face of rapidly spreading infectious disease. Finnoff presented his research to diverse groups including the National Wildlife Research Center and the Policy and Environment Resource Center (PERC). Finnoff was invited to be a visiting PERC fellow and asked to be a member of a Committee of the National Academy of Sciences. Finnoff has served on many department, college and university committees. This year, Finnoff served on the COB College Tenure and Promotion Committee, two hiring committees for the Pre-Vet program in the Department of Health Sciences, and two hiring committees for the Department of Economics. Finnoff also has professional service commitments, having served as a Co-Editor (Environmental and Resource Economics) and Associate Editor (Frontiers in Ecology and the Environment) for prominent journals in the profession as well as serving as a regular review for numerous journals in and out of the economics discipline.

Dr. Jeffrey G. Covin, (Ph.D. Organizational Studies & Strategic Planning, University of Pittsburgh) *Wyoming Excellence Chair in Business.*

During the 2023-2024 academic year Professor Covin contributed to the mission of the University of Wyoming in teaching, research, and service capacities. Regarding his teaching activities, Professor Covin developed and taught a new doctoral seminar entitled “Research Design Skills.” He also taught a master’s-level course entitled “Strategic Management of Technology and Innovation.” This is a required course within the new Venture MBA program. Both courses were well received by Professor Covin’s students, as indicated by his high scores on the “teacher effectiveness” course evaluation item. Regarding research, Professor Covin published eight refereed journal articles on topics pertaining to entrepreneurship and strategic management. He also had papers accepted for presentation at several internationally recognized conferences including the *Academy of Management Meetings*, the *Academy of Innovation, Entrepreneurship and Knowledge Conference*, and the *International Symposium on Entrepreneurship and Family Business*. Within his domain of scholarship (the “Business and Management” arena), Professor Covin is rated by Research.com as a top 100 scholar in the United States and a top 200 scholar in the world (<https://research.com/scientists-rankings/business-and-management?page=2>). Regarding his service activities, Professor Covin is currently serving as the chair or a member of seven dissertation committees. During the 2023-2024 academic year, he also served on or chaired two faculty recruiting committees and engaged in extensive professional service activities, such as being a member of the Awards Commission for the *United States Association for Small Business and Entrepreneurship (USASBE)* and an editorial board member for several of the top journals in his field of scholarship.

Dr. Scott Henkel, (Ph.D. English, Michigan State University) *Wyoming Excellence Chair in the Humanities.*

Dr. Scott Henkel (Ph.D., English, Michigan State University), Wyoming Excellence Chair in the Humanities and Director of the Wyoming Institute for Humanities Research. Dr. Henkel carries out a research, teaching, and outreach program that spans the humanities disciplines at the University of Wyoming and in close partnership with state partners like Leadership Wyoming, the Center for a Vital Community at Sheridan College, and federal agencies such as the National Academy of Arts and Sciences and the National Endowment for the Humanities. A faculty member in the Departments of English and African American and Diaspora Studies at UW and an expert in the 19th century literatures of the Americas and the history of the Land-Grant University mission, Dr. Henkel’s research activities focus on the quality of democracy, the history and future of work, and civic engagement. Henkel has published award-winning books, as well as articles and reviews, and guest editorials for the *Casper Star-Tribune* and the *Wyoming Tribune-Eagle*. A first-generation college graduate, and current mentor to first-generation students, Henkel has also served as president of the Working-Class Studies Association. Dr. Henkel facilitates public engagement at UW and throughout the state, serving on the Wyoming Humanities Council board of directors and the editorial board of the University of Wyoming Press.

Dr. Henkel is the PI for the Democracy Laboratory, a project of the Wyoming Institute for Humanities Research. The Democracy Laboratory seeks to empower students, faculty, and the public using interdisciplinary methods in order to connect our communities and to strengthen the quality of our democracy. Inspired by the preamble to the constitution, “We, the people, in order to form a more perfect union,” the Democracy Lab seeks to find ways to improve the quality of democracy at the local, state, and national levels. The Democracy Lab also draws inspiration and support from the National Endowment for the Humanities’ “A More Perfect Union” initiative; the American Academy of Arts & Sciences Commission on the Practice of Democratic Citizenship and its report *Our Common Purpose: Reinventing American Democracy for the 21st Century*; and from UW’s Grand Challenges initiative. In the best spirit of the Land-Grant University mission, the Democracy Lab is an incubator where

researchers, students, and the public can gather, discuss issues, discover and experiment with new ideas, and learn from one another. During 2023-24, the Democracy Lab accepted its second participants to its yearly cohort program. These participants met bi-weekly during the year for lab meetings, participated in public events, all leading to a public symposium to share their work, which was held at the Albany County Public Library on Saturday, April 20th, 2024. The culmination of the cohort experience is the publication of the participants' individual research projects in the journal *Experiments in Democracy*, which is hosted on the UW Libraries' Open Journal system.

Wyoming Excellence in Higher Education Endowment Fiscal Summary

The costs associated with each position include salaries commensurate with the market for top academics, employer paid benefits, ongoing budgets to support research and instructional activities, as well as one-time start-up expenses which are especially critical to recruiting distinguished scholars with large established laboratory research programs.

The balance in the Excellence in Higher Education Endowment expenditure account held at the university as of June 30, 2023, was over \$6 million. Total expenditures for the 2024 fiscal year were currently budgeted at nearly \$5 million. The planning budget was designed to maintain an adequate cash balance to cover on-going expenses for an acceptable period, in the event of diminished revenue.

The following table summarizes the uses and expenditures of the budgets for filled positions, and the total estimated cost of the program when all allocated positions are filled.

Balance July 1, 2023	\$6,628,606
Tuition Scholarships	\$ 12,359
Salaries, Wages & Benefits	\$4,275,279
Services, Travel & Supplies	\$ 452,686
Util., Repair & Maint., and Rentals	\$ 366
Int, Claims, Other Exp., Subcontracts	\$ 22,412
Internal Allocations	\$ 174,308
Total Expenses	\$4,937,910*
Income (distribution from state and interest)	\$2,211,802
Balance June 30, 2024	\$3,902,498

*Expenses to date (June 30, 2024). Due to UW Year-End processes, full accounting for FY2024 is not complete.

Planning for FY2025

Planning for the FY2025 budget is based on anticipated annual projected income as per State Spending Policy for FY24 (WS 9-4-719). The table below includes the estimated annual budget for the permanently funded positions.

<i>Estimated FY25 Spending Policy Amount for UW*</i>	\$4,311,557
Income FY25 90% per W.S. 21-16-1201(c)	\$3,800,000
Salaries and Benefits (for Chairs and GAs)	\$4,682,758
Services, Travel and Supplies	\$ 375,400
Int, Claims, Other Exp., Subcontracts	\$ 70,000
Total Expenses	\$5,128,158

* The FY 2025 Spending Policy Amount was not available prior to the due date of this report; therefore, an estimate based on the FY 2024 Spending Policy Amount was used.

Part B. Legislatively identified faculty positions

1. School of Energy Resources (SER) faculty

The Wyoming Legislature established and appropriated initial funding for the School of Energy Resources (SER) in 2006. The plan for SER stipulated the hiring of up to twelve (12) distinguished faculty who were to be co-appointed in departments across campus. Professors in the SER are internationally recognized energy experts who are actively involved in both energy research and teaching. They work in a variety of disciplines and have formed productive collaborations across campus. The current SER professors include:

Dr. Po Chen, (Ph.D. Geological Sciences, University of Southern California) ***SER Associate Professor of Geology and Geophysics.***

In the past year, Dr. Chen has extended his international collaborations from Taiwan to the China Earthquake Network Center (CENC) in mainland China. The AI-based earthquake detection and seismic data processing technique developed by Dr. Chen and his collaborators are being actively adopted both in Taiwan and in earthquake-prone areas in mainland China. This new technology is being extended from detecting signals from earthquakes to those generated by landslides and different types of mass-flow events. This work contributed to the mitigation of the landslide hazards induced by the 3 April 2024 M_w 7.4 earthquake in Hualien, Taiwan, which was the largest earthquake in Taiwan in over 25 years and killed 18 people and injured over 1,100 people. This collaborative work has resulted in 3 publications in peer-reviewed journals in the past year and Dr. Chen and his collaborators expect to produce more publications to document their successes in saving properties and lives from disastrous earthquakes in the coming years. In the past year, Dr. Chen taught 3 courses in petroleum geology and machine learning to both graduate and undergraduate students. He is currently advising one MS graduate student and one PhD candidate.

Dr. Timothy Considine, (Ph.D. Natural Resources Economics, Cornell University) ***SER Professor of Economics and Finance.***

During academic year 2023-2024, Dr. Considine taught two undergraduate courses in Oil: History, Culture, and Power and Energy Markets and Policy. He completed two studies for the School of Energy Resources (SER): the economic and fiscal impacts of carbon capture in Wyoming and the fiscal impacts of incentives for carbon capture in enhanced oil recovery. He completed peer-reviewed studies of the effect of temperature on energy demand and the role of adaptation and a critique of EPA's cost-benefit analysis of the federal electric vehicle mandate. He is

currently working with the SER assessing the returns from research and development of the Mowry Shale in Wyoming. Finally, with external foundation support he is currently working on a study of how oil and gas drilling and production differs on federal lands compared to state and private lands; the impacts of state environmental regulation on oil and gas development; the regional economic impacts of coal exports; cost sharing of environmental liabilities; and the economic impacts of renewable and non-renewable energy production.

Dr. Craig Douglas, (Ph.D. Computer Science, Yale University) *SER Professor of Mathematics*.

Dr. Douglas is an internationally recognized expert in computational sciences who leads a research group that creates sophisticated mathematical models of physical phenomena using networks of remote sensors and high-performance parallel computers. He has a long-term collaboration with AirLoom, LLC, a renewable energy company located in Laramie. Two of his current or former Ph.D. students have worked there, including one full-time. He has published a research paper with AirLoom staff on optimization techniques relevant to wind energy design development. Dr. Douglas also has a project on dual porosity models relevant to both the fracking industry and aquifer modeling. An open source two and three-dimensional high-performance code has been released that runs efficiently on one to thousands of processors. Another project involves the Wyoming Department of Transportation to create a machine learning model for predicting when Interstate 80 should be closed and reopened. It currently works well with historical data. We are working to create a better model using a live data stream. Federal dollars are spent in state and the results enhance UW's reputation through high visibility internationally. One of his projects has created the first 100 Gigabit/second computer network in Wyoming, which enhances Wyoming's ability to attract large data centers to the state. He has taught a first-year seminar course on Energy, the Environment, and Economics, that covers all aspects and forms of energy from the viewpoints of Wyoming and globally. Dr. Douglas is also an adjunction professor in the School of Computer, where he concentrates on providing new opportunities for Wyoming residents for careers in data sciences and machine learning.

Dr. Maohong Fan, (Ph.D. Iowa State University; Ph.D. Osaka University) *SER Professor of Chemical and Petroleum Engineering and Carrell Family Energy and Petroleum Professorship in the College of Engineering*.

His research has focused on carbon capture and utilization, coal-to-carbon materials, including carbon fibers and carbon quantum dots, carbide, critical material extraction, and purification. As a PI, Co-PI, or major senior personnel, he led multiple DOE and NSF projects in the last year in critical and energy material chain and environmental protection areas. Promising progress was made with these projects in the previous year. For example, good progress has been made in the preparation of industrial-grade carbon fiber and carbon quantum dots from fossil and renewable resources. Also, by working with faculty members, new efforts were made in CO₂ capture, sequestration, and utilization, which is needed in Wyoming, which is rich in fossil resources, including coal, oil, and gas. Some results have been filed for IP protection and sent out for publication. All the projects have been involved with the faculty members from the Departments of Physics and Astronomy, Mathematics and Statistics, Mechanical Engineering, Civil Engineering, and Haub School of Environment and Natural Resources at UW, and many team members in other universities and companies as well as national labs. Currently, he has 11 group members. He continued to work for the National Academies of Science, Engineering, and Medicine (NASEM) on CO₂ utilization reports. The first report of the NASEM was published. He and his colleague are working on the 2nd report. He is leading two chapters of the report. The report is significant to Wyoming because it is mainly related to CO₂, a major byproduct of the utilization of fossil resources, the important driving power of Wyoming's economy.

Dr. Dario Grana, (Ph.D. Geophysics, Stanford University) *SER Associate Professor of Geology and Geophysics* and *Wyoming Excellence Chair and School of Energy Resources Associate Professor in Geology and Geophysics* (See WY Excellence Endowment Report)

Dr. John Kaszuba, (Ph.D. Geochemistry, Colorado School of Mines) *SER Associate Professor of Geology and Geophysics* and *John and Jane Wold Chair of Energy*.

Professor Kaszuba has over 25 years of experience researching geochemical interactions between fluids and rocks. His research group of six graduate students and one undergraduate student presently focus on unconventional oil and gas reservoirs, carbon storage, geologic hydrogen, and rare earth elements/critical minerals in Wyoming. His former students have successful careers in industry (e.g., Chesapeake Energy Corporation, Enerplus Corporation, ExxonMobil, Wyoming Whiskey) and government (Pacific Northwest National Laboratory, Los Alamos National Laboratory). His research is funded by several extramural resources, including an Energy Frontiers Research Center funded by DOE and a Joint Industry Project with ConocoPhillips Company. He teaches courses in the Department of Geology and Geophysics and SER. He serves on numerous committees, including graduate student committees as well as SER and University committees, and is a member of the Wyoming State Geological Survey Advisory Board. Professor Kaszuba is the John and Jane Wold Centennial Chair in Energy and a Nielson Faculty Fellow.

Dr. Subhashis Mallick, (Ph.D. Geology and Geophysics, University of Hawaii) *SER Professor of Geology and Geophysics*.

Dr. Mallick's expertise is in the field of seismic inversion, seismic modeling, and the use of artificial intelligence to solve seismic inverse problems. Unlike convolutional modeling for estimating subsurface lithological and fluid properties, which is the current state-of-the-art for the oil and gas industry, Dr. Mallick works on the use of the full waveform-based methods. Software products developed by him have been successfully applied in several fields and are currently used by the oil and gas industry. In FY2024 Dr. Mallick collaborated with Dr. Morteza Dejam (Petroleum and Resource Engineering) and submitted two external research grants- (1) characterization of the Mowry Petroleum system and (2) on the feasibility of underground hydrogen storage. The first grant was submitted to the American Chemical Society (ACS) and has not been funded. The second grant is submitted to the National Science Foundation (NSF) and is still pending. Additionally, he is also collaborating with several oil and gas companies for additional funding. He published three papers in peer-reviewed journals and presented several papers at conferences. Additionally, he also completed writing the book- "*Computational Seismology, Optimization, and Machine Learning*", which is due for publication by the end of 2024. As for the teaching, Dr. Mallick taught two undergraduate-level classes in FY2024, (1) Petroleum Geology and (2) Exploration Geoscience. The first class is primarily meant for seniors majoring in Petroleum Engineering. The second class is jointly offered by the School of Energy Resources and the Department of Geology and Geophysics and covers all fundamental aspects of the art of geophysical exploration and their applications.

Vacant, *SER Professor of Soil Sciences*.

Dr. Kelly Dunning, (Ph.D. Natural Resources Policy, Massachusetts Institute of Technology) ***SER Timberline Associate Professor of Sustainable Outdoor Recreation and Tourism.***

Kelly Dunning is the Timberline Associate Professor of Sustainable Outdoor Recreation and Tourism. This was her first year at the University of Wyoming. Thanks to her endowment, she was able to build her new lab, the Wildlife and Wilderness Recreation Lab. The lab emphasizes public service to the state of Wyoming and to the United States. For example, Dunning created an undergraduate research fellowship for student veterans, hiring its first recipient this year to examine the impacts of wild pigs on outdoor recreation on public land, an invasive species that costs the American taxpayer \$2.5 billion in annual damage. Likewise, Dunning was able to initiate a new-to-hunting training program for UW students and faculty in collaboration with Wyoming Game and Fish, an activity which builds the hunting community in the state of Wyoming, and increases hunting license sales, with those funds going to Wyoming wildlife conservation.

Dunning successfully secured \$150,000 in external grant funding to examine the ways that public meeting attendance in the state of Wyoming can be increased for big game hunting regulation meetings. Wyoming is synonymous with big game hunting, and the rest of the country looks to the state and its businesses for leadership in the outdoor recreation and hunting sector. This research project will ensure that the public's voice is better heard in public big game management meetings. This year, Dunning published a book and 9 peer reviewed publications with her graduate students. She graduated 3 masters students and one PhD student, all of whom went on to work in the public sector in fish and wildlife management. All of her research was conducted in collaboration with fish and wildlife decision-makers, to answer a real management challenge. This ensures that research produced in Dunning's lab is used to have an impact on wildlife and natural resources.

Tara Righetti, (J.D. Law, University of Colorado Boulder) ***SER Associate Professor of Law and Occidental Petroleum Corporation Chair in Energy and Environmental Policies (OPDDEEP).***

Tara Righetti is faculty in the College of Law, the Haub School of Environment and Natural Resources, and the School of Energy Resources. She holds the Occidental Petroleum Chair in Energy and Environmental Policies and co-directs the Nuclear Energy Research Center (NERC) at the School of Energy Resources. Professor Righetti's teaching, research, and outreach activities continue to positively support efforts to advance energy driven economic development in the state of Wyoming.

Professor Righetti teaches energy law classes in the College of Law and the School of Energy Resources. In the Fall of 2022 Professor Righetti offered two sections of oil and gas law at the undergraduate and graduate level and a section of global climate governance that included both undergraduate and master students. She also chaired one graduate thesis committee, served as an external member on two other committees, and supervised two student independent study projects. She will be supervising a third independent study this summer.

Professor Righetti's research relates to property and administrative law issues associated with energy development and decarbonization. During the 2023-2024 academic year, Professor Righetti published three book chapters, including a set of oil and gas course materials for students in trial advocacy. She also served as the guest editor of a special edition of the Oil, Gas, and Energy Law Journal on Carbon Capture and Storage. She had two other articles accepted for publication. These will be published in the Fall of 2024 and the Spring of 2025 in the Oklahoma Law Review and the Boston University Law Review, respectively. Professor Righetti also served as the conference chair for the Oil and Gas Law Short Course and the Special Institute on Carbon Capture and

Storage with the Foundation for Natural Resources and Energy Law. During the academic year she was invited to present her research to numerous academic, industry, and government groups including the ABA international law section, the International Bar Association, the Energy Council, the Department of Energy, the Western Governors' Association, and as the Liskow Visiting Professor at Louisiana State University. Together with colleagues, Professor Righetti contributed to two grant proposals as a Principal Investigator or Collaborator to the DOE Office of Fossil Energy and Carbon Management (FECM). Both of these were funded. The first was a project for a CO2 pipeline feed study led by the Enhanced Oil Recovery Initiative and the second was for a study of pore space valuation methods. She contributed to two additional grant proposals which are currently under review by the Department of Energy and the Sloan Foundation. As co-chair of the Nuclear Energy Research Center, Professor Righetti submitted a winning proposal to host the 2024 Nuclear Innovation Bootcamp on campus in Laramie. That event was held from July 21-August 2, 2024.

Part C. Privately Endowed Faculty Positions

In the 2023-24 Academic Year more than sixty (60) UW faculty positions are partially or fully supported by privately funded endowments established with gifts to the UW Foundation. In the 2023-24 Academic Year, endowed accounts support twenty-six (26) faculty chair positions, of which three (3) positions were vacant and thirty (30) professorship positions, of which five (5) were vacant during the year. Leadership support includes: two (2) Deanships with a future named Deanship approved in the College of Business. The single Archivist position is located at the American Heritage Center, and single Librarian position is located at Coe Library. A complete list of the privately endowed chairs, professorships, and faculty fellowships is available from the UW Foundation. That list describes the history of the endowment, the qualifications or purpose, the uses, and the current and past faculty recipients. Some of these endowed positions are not filled at the present time; others fund various faculty from year-to-year.

In all cases, the uses of the endowment earnings are specified in the gift agreements and are reflected in the focus of the teaching, research, and extension/outreach programs of the faculty member beneficiaries.

As discussed in Part A of this report, the funding for some privately endowed positions is bolstered by earnings from the state-funded Excellence in Higher Education Endowment. These public-private partnerships include:

The Thomas and Shelley Botts Endowed Chair in Unconventional Reservoirs in the College of Engineering and Applied Sciences and Alchemy Sciences Petroleum Engineering Chair, held by Dr. Mohammad Piri (College of Engineering and Applied Sciences).

The Eldon & Beverly Spicer Chair in Environmental and Natural Resources, held by Professor Steve Smutko (Haub School and College of Agriculture).

The individuals who held endowed faculty positions for this reporting period are as follows:

College of Agriculture and Natural Resources

Dr. Michael Dillon, (Ph.D. Biology, University of Washington) *L. Floyd Clarke Professorship in Zoology and Physiology*

Michael E. Dillon (Ph.D., University of Washington), the L. Floyd Clarke Endowed Chair. Dr. Dillon is a Professor in the Department of Zoology and Physiology and in the Program in Ecology. His research centers around two core and related questions: How do environments determine whether and where animals persist?, and How do animals respond to environmental challenges? Dr. Dillon published 9 peer-reviewed manuscripts in 2023 has 4 active NSF grants (contributing ~\$4 million total to UW) with a new NSF grant awarded in Fall 2023 to study molecular and cellular markers of aging in bumble bees. He was also awarded 3 internal grants in 2023 (~\$78 K total), seeding new projects on ant responses to climate change (in collaboration with Cardiff colleagues), cross-continent approaches to environmental challenges (collaboration with UW, Cardiff, and a field station in Borneo), and on ecosystem resilience in the GYE (with UW colleagues). He was the invited plenary speaker for the South American workshop of Ecological and Behavioral Physiology, and an invited symposium speaker at the Entomological Society of America, in addition to 5 poster presentations and 4 talks by his research group at international conferences. In addition to directly mentoring 4 PhD students, the Teton postdoctoral scholar, and a WRSP undergraduate, he served on graduate committees for an additional 8 students at UW and 6 students at other institutions (Alabama, Arizona State, CU Boulder, Iowa State, Canberra, 2 of whom graduated in 2023). He serves as Interim Director of the UW AMK Institute and as Director of the new Science Initiative Wyldech Center for Wildlife, Technology, and Computing. He teaches Comparative Environmental Physiology (core course with lecture and lab) and co-teaches a study abroad course, The Art and History of Medicine. The L. Floyd Clarke fund additionally supported 6 graduate students through research awards and co-sponsored a seminar visit by a leading insect ecologist and member of the National Academy of Sciences. Dr. Dillon is honored to serve as the L. Floyd Clarke Chair and looks forward to expanding its impact in the coming year.

Dr. Donna Harris, (Ph.D. Plant Breeding, Genetics, & Genomics, University of Georgia), *E.A. Whitney Professorship in Agriculture*,

The Harris lab research program currently focuses on several main areas related to plant selection and improvement. The lab is in the process of identifying germplasm and the underlying genomic loci that control traits shown to enhance yield stability under drought conditions. In one project funded by the USDA – Pulse Crop Health Initiative they are evaluating 100+ field pea accessions at two Wyoming locations (Powell and Sheridan) for yield stability and numerous phenological traits under adequate irrigation and deficit irrigation. Two greenhouse experiments were also conducted in Sheridan with a subset of these lines. The greenhouse work was presented at the North American Pulse Improvement Association meeting in November of 2023 in Greenville, SC. (Ph.D student, Grace Vinarao is working on this project). Additionally, in collaboration with a University of Georgia researcher (Dr. Zenglu Li), they have completed three years of drought tolerance trials with soybean and are working to identify the genomic locations underlying slow canopy wilting and canopy temperature in soybean as well as developing a high-throughput UAV-based methodology to phenotype drought tolerance.

Through funding from the Wyoming Bean Commission, the Harris lab is breeding for dry bean cultivars that are high yielding, upright, early maturing, and adapted to Wyoming. Lines in 2023 were tested at three locations, Sheridan, Powell, and Lingle. One pinto line, 1016F, has yielded as high or higher than commercially grown cultivars over the past two years in both Sheridan & Powell. The lab is also evaluating dry bean genotypes at Powell, Sheridan, and Lingle for canopy temperature (using a thermal drone) and yield with the purpose of

determining whether canopy temperature can be used as a fast and reliable method of determining the potential yield of varieties prior to harvest. PhD student Price Akiina is involved in this project.

The Harris Lab is also working on native plant improvement and alternative forage options for farmers and ranchers in Wyoming. In collaboration with Dr. Brian Meador, and with funding support from the Bureau of Land Management, they are selecting and improving native plant materials for reclamation of disturbed rangelands and wildlife habitat improvement. A field trial was established in 2023 at WYarno, WY. (Ph.D student Grace Vinarao and M.S. student Heidi Schuler are involved in this research).

Dr Harris along with Dr. Carrie Eberle and Dr. Brian Meador have evaluated the viability of using sunn hemp as an alternative forage option in northeastern Wyoming and Minnesota and have presented this work at the ASA meeting in St. Louis. They are in the process of writing the publication. Additionally, over three hundred alfalfa accessions from the USDA germplasm bank have been planted in Sheridan in 2023 in a replicated plot trial to screen for tolerance to the alfalfa weevil, a trait that producers in the region have requested.

Through a research agreement with the Whitetail Institute of North America, the lab is starting to work on breeding for forage field peas and ladino clover as a high-quality forage with higher seed yield.

Another research project that the lab is focused on is the use of a combination of aero-ground penetrating radar (GPR) and a multispectral and thermal drone to predict the non-destructive yield of sugar beets. The aero-GPR consists of a large drone with a mounted GPR system that flies at low altitudes over the target area. This technology could significantly increase the ease of monitoring below-ground plant parts during the growing season in a non-destructive manner. Plant breeders and other plant scientists could use a device such as this in the seed industry to help predict the yield of crops harvested for their underground parts. In addition, they are collecting other above-ground traits with the additional two drones to see what combination of traits best aid in yield prediction accuracy.

In 2023-24, Dr. Harris has brought in over \$400,000 in research grants where she is the principal investigator or co-principal investigator. She has three manuscripts in preparation that will be submitted this summer, and a book chapter in review.

Dr. Harris currently mentors 7 students from Sheridan College in her lab. Additionally, she has three PhD students, Clement Nyam, Price Akiina and Grace Vinarao that she chairs and one M.S. student, Charles Grimes. She has an additional 2 PhD students (Dipanjoli Dola and Bhawna Bhawna) and one M.S. student in which she is a co-chair (Heidi Schuler).

In the 2023-24 academic year, Dr. Harris has taught LIFE 3050, PLNT 4050/5050 Plant Biotechnology, PLNT 5820 Graduate Seminar, PLNT 4820 Plant Sciences Seminar, and co-taught PLNT 4470/5470 Lab. She has also given guest lectures at the University of Wyoming and Sheridan College.

She has had the opportunity to serve the University of Wyoming as a member of the Faculty Senate, representing the Plant Sciences Department faculty as well as participating as a member of the Student Interaction Committee since the fall of 2020.

Dr. James K. Pru, (Ph.D. Molecular Reproductive Biology, University of Wyoming) *Curtis and Marian Rochelle Endowed Chair in Animal Science*

Dr. Pru completed his third year at the University of Wyoming (UW) where he continues to expand three primary areas of research. First, Dr. Pru's lab seeks to understand the unique molecular dialogue that exists between the

mother and embryo as pregnancy is first being established. He uses genetic approaches in animal models to understand signaling networks that coordinate maternal: embryo cross-talk. The significance of these studies is that the large majority of failed pregnancies in mammals occur during this time when the embryo first signals its presence to the mother. The overarching goal of these highly collaborative studies is to identify evolutionarily conserved pathways that coordinate successful pregnancy in diverse species. Second, Dr. Pru is interested in how female steroid hormones like estradiol and progesterone work to coordinate female fertility and to maintain reproductive fitness. In 2023, Dr. Pru was awarded a grant through the National Institutes of Health (NIH) to tease apart mechanisms by which a novel class of progesterone receptors function to prevent premature reproductive senescence and accelerated aging in the female. Third, Dr. Pru has a long-standing interest in the etiology and progression of women's reproductive diseases such as endometrial and breast cancer, as well as in the development of therapeutic strategies to combat these diseases. Such diseases dramatically increase female morbidity and mortality and reduce the overall quality of life. Since coming to UW in 2021, Dr. Pru's lab has procured approximately \$2.5 M in grant support from the NIH and the United States Department of Agriculture (USDA) to study non-classical progesterone signaling, endometrial/breast cancer, and for the application of gene editing technologies. Dr. Pru taught LIFE 3050 (Genetics) in 2023 and developed a new graduate level course in Animal Science. Dr. Pru is also developing an undergraduate course ("Perspectives in Biotechnology") that will offer insights to modern technologies in animal production systems. Dr. Pru was awarded the 2023 Presidential Scholarly Achievement Award through the UW Office of the President for his research efforts. He continues to work with UW leadership to develop an institutional grant from the NIH centered on expanding biomedical research excellence in the areas of reproductive and regenerative biology. The basic and translational research conducted in Dr. Pru's lab has impactful application to both the agricultural and health care sectors within the state of Wyoming and beyond.

Vacant, Riverbend Ranch Endowed Chair in Wildlife-Livestock Health

Vacant – Farm Credit Services of America Ranch Management and Agricultural Leadership Chair

Dr. Amy Navratil, (Ph.D. Biomedical Science, Colorado State University) Gardner Chair/Professorship in Physiology

As a physician, Dr. Hank Gardner was interested in improving health care through innovative biomedical research, academic leadership, and teaching excellence in the field of human physiology. In support of this mission, Dr. Navratil is bringing biomedical science to the forefront of the department of Physiology and Zoology through her excellence in teaching of core pre-health classes and research investigating the mechanisms underlying ovulation and fertility in women.

In the Fall semesters, Dr. Navratil teaches half of the large service class Integrative Physiology (ZOO4125) in the Science Initiative building's active learning classroom. In addition, Dr. Navratil has also taken over as the lead for the Reproduction and Development block in the WWAMI medical school. In the Spring semesters she teaches a five-week section of Human Systems Physiology (ZOO3115) and offers an advanced Endocrinology class dealing with Mechanisms of Hormone Action (ZOO4736). This class provides a mechanistic picture of the cellular and molecular events involved in endocrine signaling and what goes wrong with those pathways in disease states. Combined, these classes service over 400 students in multiple degree programs who are interested in pre-health careers. Collectively, the course content serves as a foundational cornerstone for preparing students for their required admissions exams to professional health programs. For her outstanding instructional efforts, Dr.

Navratil received the Outstanding Educator Award from the College of Agriculture, Life Sciences, and Natural Resources.

Dr. Navratil is also a past Presidential Fellow who is developing a one-year Plan B Master's Program in Preclinical Sciences (PCS). The goal of this program is to provide an interdisciplinary "gap" year program to maximize personal and professional growth for students interested in professional health programs (Medical, Dental, Physician Assistant (PA), Optometry, biomedical research/grad school, Veterinary Medicine). Collectively, the MS in PCS is well positioned to positively impact the physician/health provider pipeline in Wyoming and beyond. In support of this, the notice of intent for the program was recently approved by the Board of Trustees.

Dr. Navratil also provides laboratory training to graduate and undergraduate students in hypothesis driven scientific research. She has 2 PhD students and 3 undergraduates. She is funded through an NIH, National Institute of General Medical Sciences, IDeA Wyoming INBRE "Women's Reproductive Health" supplement grant and published two peer reviewed manuscripts on her research. The goal of her program is to vertically advance the field of reproduction by discovering novel mechanisms that regulate fertility. More specifically, Dr. Navratil's laboratory is providing critical insight into the pathophysiology of impaired reproductive function in women.

Dr. Corey Tarwater, (Ph.D. Ecology, Evolution, and Conservation Biology, University of Illinois, Urbana-Champaign) ***Robert B. Berry Distinguished Chair in Ecology***

Dr. Tarwater is an Associate Professor in the Department of Zoology and Physiology and in the Program in Ecology. She began her appointment as the Berry Distinguished Chair in Ecology in January 2023 and since she began this position, she started WYOBIRD (Wyoming Bird Initiative for Resilience and Diversity), trained undergraduate and graduate students, and conducted field research on species interactions and avian demography. In particular, Dr. Tarwater is in charge of the longest running study on avian demography in the Neotropics, now in its 47th year. Dr. Tarwater's research program is focused on addressing how the loss of species, introduction of invasive species, and other environmental factors influence individuals, populations, and communities. Her research group works with natural resource managers to address questions linked to management, while also asking larger theoretical questions that result in her group publishing in top-tier journals such as the Science, Nature Climate Change, and the Proceedings of the National Academy of Sciences. During the 2023-2024 academic year, Dr. Tarwater published 4 scientific papers, all of which included undergraduate and graduate students from UW and beyond. She obtained one Strategic Environmental Research and Development Program grant (\$2 million), which will examine how the loss of particular plant species alters seed dispersal of native and invasive plants in Hawaii. She obtained a UW Research Excellence Fund Seed Grant (\$40k), which will examine pollination and seed dispersal networks in Grand Teton National Park. Dr. Tarwater has a current National Science Foundation grant, for which she is the Principal Investigator, which is looking at alterations in species interactions at army ant swarms. Dr. Tarwater is currently mentoring 4 graduate students and 2 WRSP undergraduate students conducting independent projects. In addition to the mentoring and research, the Tarwater lab was part of a film on army ant swarms (in collaboration with the Smithsonian Tropical Research Institute) and an article on the making of the documentary was published in Smithsonian Magazine ([link to both here](#)). Dr. Tarwater is honored to serve as the Berry Distinguished Chair in Ecology and continues to seek expanded impact through the training of students and outreach with the public within Wyoming, while also addressing conservation needs in highly speciose regions of the world.

The Wyoming Bird Initiative for Resilience and Diversity (WYOBIRD) began in the summer of 2023, but has already had notable impacts on both University of Wyoming students and Wyoming communities. The mission of the Initiative is threefold: to further research objectives, support student success, and to connect with local communities through outreach events. In its first year, WYOBIRD ran a summer nest box study at Hutton, started a fall migratory bird banding station in Laramie, held several outreach events, hosted invited speakers to interact with students and faculty, hosted two workshops for students and faculty on research methods, and began planning for its future success. In total, 12 undergraduate interns worked with WYOBIRD on gaining marketable skills in Ornithology through our nest box study or fall banding station. This upcoming year, we are excited to offer paid internships for undergraduate students. WYOBIRD held two science cafés alongside the Biodiversity Institute, one in Laramie and one in Jackson, both well-received. From the research workshops, students and faculty gained skills in analyzing the large-scale dataset of eBird and in analyzing population demography data in RMARK. WYOBIRD students, faculty, and staff continue to plan future outreach events and student opportunities for the coming year while upholding a standard of excellence in pursuing their research objectives across the Americas.

American Heritage Center

Dr. Mary Brown, (Ph.D. History, University of Missouri) *Clara R. Toppan Curator of the Toppan Rare Books Library*

Dr. Brown's position is more archival in nature and her primary responsibility is the oversight and growth of the Toppan Rare Books Library. One of the benefits of this is that she provides UW students with unique opportunities to gain experience in the archival and rare book field while also working on projects that will help them in their graduate school applications or future career endeavors. During this past year, Dr Brown was able to expand the experiences of the UW undergraduates who interned or worked at the Rare Books Library. One past intern (and recent UW graduate) was hired on as a part-time employee after the internship. During the fall semester 2023, she curated an exhibit highlighting the history of the mystery genre. In the spring semester, she contributed greatly to the curation of the current exhibit on western dime novels.

In the 2023-2024 academic year, Dr. Brown contributed to the growth of the library with the addition of several new sub-collections. One of the collections contained over 600 books on General George Custer and Western Americana while another large collection contained the library of former UW professor Leo Sprinkle. The Toppan staff grew as well with the addition of a full-time Rare Books Cataloger. Dr. Brown saw an increase in class visits throughout the academic year from multiple UW campus departments including History, Visual Arts, English, Art History, and Communication & Journalism.

Dr. Brown also continued to work with UW professors and counterparts from Cardiff University in the implementation of the NEH-AHRC grant creating an image database that will feature illustrations from the books in the Toppan Rare Book Library. She traveled to Cardiff and London to meet with the team and see firsthand how they were using the image database and to tour their facilities. Dr. Brown received funding to attend a course on the History of Children's Literature at the California Rare Book School and brought back ideas for future exhibits and areas to expand the collection. In addition to the activities in Toppan, Dr. Brown has continued her research on the civil rights activism of World War II student veterans on college campuses across the country. Over the past year, she also created a lecture and teaching materials for the Wallop Civic Engagement Program. At the end of the year, she chaired and presented on a panel about Women in the Archives at the Midwestern Archives Conference in Iowa alongside several of her colleagues.

College of Arts and Sciences

Dr. Shane Epping, (Ph.D. Journalism, University of Missouri) *Bobby Model Professorship in Photojournalism*

In terms of research, Epping recently had his paper and photo essay on Highway 287 between Colorado and Wyoming accepted into *Visual Communication Quarterly*, an international, peer-reviewed journal of theory, research, practical criticism, and creative work in all areas of visual communication. Similar research was presented by Epping at the 37th Annual Visual Communication Conference in Mammoth Lakes, California, in June 2023. In August 2023, Epping presented a separate research project at the Association for Education in Journalism and Mass Communication (AEJMC) Conference in Washington, DC, regarding how COVID-19 was documented by photojournalists in a gatekept environment of social distancing and intuitional safeguards that limited access to members of the media. A related paper has been submitted for publication. Epping is currently co-authoring three papers: 1) one with a UW colleague about how political affiliation and emotions shape responses to politically divisive news images, 2) a paper with a colleague at the University of Missouri about visualizing citizenry-in-the-making by analyzing representations of youth protest in Reuters news photography, and 3) a research paper with a UW graduate student about political affiliation of journalists and the influence on their reporting from a Bangladesh perspective. Epping is directing the 38th Annual Visual Communication Conference that will be hosted in-person in Saratoga, WY, in June 2024, where scholars from coast-to-coast will be presenting their research. Funds from his professorship have been resourced to subsidize registration fees for all those in attendance.

In terms of his creative endeavors, Epping received a \$10,000 faculty research grant from UW's College of Arts & Sciences to fund a new creative project where he will be documenting women entrepreneurs in a remote village in El Chino, Perú, only accessible by boat on the Amazon River. Epping won a bronze medal at an international competition entitled Association for Education in Journalism and Mass Communication (AEJMC) Festival of Visual & Interactive Media (or VIM Fest). One of the two photographers who placed ahead of him won a Pulitzer Prize for her same work about the survivors of a mass shooting at First Baptist Church in Sutherland Springs, Texas. In August 2024, Epping will serve on a panel about Artificial Intelligence (AI) and how it intersects with photojournalism at the 107th Annual AEJMC International Conference in Philadelphia. As an officer in the Visual Communication Division of AEJMC, Epping organized a luncheon that will feature guest speaker Danese Kenon, the Managing Editor of Visuals at *The Philadelphia Inquirer*, and Suzette Moyer, the Creative Director, at the same publication. In addition, Epping won third place at the Second Annual Northwest College Community (Powell, WY) Photography Contest for Outstanding Excellence in the Professional Category, and earned entry into two separate photography exhibitions (June and October 2023) at *The Lab on Sante Fe* in Denver, the *Indianapolis Art Center* in Indiana (May 2024), and Life in the West Art Gallery in Broomfield, Colorado (September 2023). He is also in the final stages of creating a photography book as part of the second annual public exhibition for the Laramie County Public Library (LCLS) where the show will travel to libraries around the State of Wyoming. The reading program and exhibition theme are focused on "adventure," and entitled Ramble/Rove.

In terms of service and mentorship, Epping was one of two faculty members asked to speak to a crowd of hundreds at the Endowing Excellence Dinner on September 28, 2023, an event held at the Marian H. Rochelle Gateway Center that recognized the transformative impact of UW's named faculty. He also led a formal presentation at the 125th Annual Wyoming Press Association (WPA) Convention in January 2024 in Casper, WY, and the 2023 Wyoming Student Media Association (WSMA) Convention at the University of Wyoming. Epping was honored by Mortar Board, an honorary on campus, and asked to speak at their new "Last Lecture" series event on March

6, 2024, in the Senate Chambers in the Union with the prompt: "If you only had one lecture left, what would you tell your students?" Back by popular demand, Epping continued to curate photography exhibits for his students at Coe Library in the fall of 2023 and the spring of 2024. In the words of Paula Martin, Interim Associate Dean at UW Libraries, "Thanks so much-we've already gotten a lot of people stopping to look and one student who was in a photo! People really love this." One of his students, Sarah Thomson, won an award at the 49th UW Art Museum's Juried Student Exhibition, in addition to having her work selected for an exhibit at *That Gallery* in the Visual Arts Building. Serving of an official mentor for a student in the Honors College, Epping was pleased to witness his mentee, Sera Glass, receive two grants totaling \$3,000 that funded a creative research project in Japan that resulted in a photography exhibition at the Guthrie House, as well as a formal presentation at the Undergraduate Research and Inquiry Day in April, 2024. Perhaps even more impressive, Sera's photography was featured as the cover, with four additional full pages in *UW's Honors College Magazine* in the spring issue. Relatedly, Epping's teaching assistant, Ashton Hacke, won the 2023 Larsh Bristol Photojournalism Fellowship, and is featured in the spring issue of the *UWyo Magazine* where Epping is also featured.

Dr. Stephanie B. Anderson, (Ph.D. Political Science, University of Cambridge, UK) *Clarence Seibold Professorship*

During 2023-24, Dr. Anderson received the Seibold Professorship, which released her from teaching to facilitate the development of meaningful relationships with partner universities in Europe and Asia, with the goal of improving and increasing international and interdisciplinary teaching, research, and education at UW, especially in the social sciences, humanities and arts.

In the fall semester, Anderson focused on UW's European partners and was able to represent the University of Wyoming at the European Association for International Education. The conference allowed her to do a preliminary visit with many top ranked universities, including Zeppelin University (Germany), Rikkyu University (Japan), Nanyang Technical University (Singapore), and the University of Strasbourg (France). In addition, Anderson was able to start five new partnership agreements with the University of Galway (Ireland), KU-Leuven (Belgium), Chulalongkorn University (Thailand), Sciences-Po, Lille (France), and Middle Eastern Technical University (METU) (Turkey). She also conducted multiple, in-depth, on-site visits, including giving public talks, in order to cultivate personal relationships and to discover areas of overlapping interests. At the same time, Anderson won a Senior Visiting Research fellowship at the Free University of Berlin, one of UW's most important partners. Anderson contributed to their SCRIPTS project examining the quality of democracy around the world, which included co-editing an Oxford University Press book on the subject. Anderson also researched the United Nations' Security Council Resolutions 1325 and 1820 on Women, Peace and Security to improve the efficacy of western peacekeeping and peacebuilding operations. She will use her experience and research abroad to add modules on the subjects in her courses and to design a faculty-led, study-abroad course on the "End of War in Europe?" which she hopes to do in the coming years.

Anderson spent the spring semester in Asia further pursuing international partnerships for UW by consulting with Education USA/Fulbright offices at U.S. embassies, doing in-depth, on-site campus visits, and meeting with UW alumni. Anderson was able to consult with the Education USA offices in New Delhi, India and in Hong Kong to discuss ways to attract more of their English-speaking students to UW. In addition, she was able to meet with the Fulbright office in Jakarta, Indonesia to explore ways to help UW students and faculty study and conduct research in the world's largest democracy. For example, the School of Politics, Public Affairs, and International Studies is working with Brawijaya University in Indonesia to create a program of development studies. Anderson was also able to conclude a new agreement with Chulalongkorn University, the number one university in Thailand and premier university in the region. She also went to Australia to pursue agreements with Australia's top-ranked,

University of Melbourne, the University of Technology – Sydney, and the University of New South Wales. One of the highlights was to meet with so many students and faculty who had spent time at UW on exchange programs, for example, faculty who came to Laramie through the Milward Simpson/Fulbright-Australia exchange and through the Wyoming Excellence Endowment. All had fond memories of their time at UW and were allies in her efforts to build relationships. In terms of the students, they were so enthusiastic that they offered to make videos to promote UW both on UW's social media as well as at their own universities.

Dr. Meredith Minear, (Ph.D. Psychology, University of Michigan) *Clarence Seibold Professorship*

During 2023-2024, Dr. Minear received the Seibold Professorship, which released her from teaching and allowed her to focus on the development of augmented and virtual applications in teaching brain and behavioral science. Several applications were created using immersive technologies to help students learn neuroanatomy, key concepts in sensation and perception and allowing students to directly experience different neuropsychological conditions in virtual reality. These applications will be implemented in Dr. Minear's Fall 2024/Spring 2025 courses and their efficacy in improving student learning and engagement will be rigorously tested and the results shared with the larger research and teaching communities. A subset of these applications will be used in this year's High School Institute course, Cognitive Neuropsychology, taught by Dr. Minear. Dr. Minear shared her development work with fellow Wyoming educators in Spring 2024 through presentations on AR development at the LAMP Coffee & Curriculum session and at the WIP (Wyoming Innovation Partnership) Immersive Reality Training Conference which was attended by educators from across the state. Dr. Minear also wrote and received a 10K grant from the WIP Virtual Reality Project to increase the use of immersive technologies in teaching in collaboration with the UW 3D Visualization Center. This project begins in Fall 2024 and includes targeted workshops in educator development & collaboration in AR use, creation and assessment as well as workforce development for Wyoming students in creation of AR applications with the goal of building an active community of educators at all levels across the state interested in developing and using immersive technologies in their classes. Finally, Dr. Minear will be sharing her work with the wider Wyoming educational community with a presentation at the 8th Annual Wyoming Innovations in Learning Conference to be held in Casper, this October.

In addition, Dr. Minear used this year to present at and attend conferences focused on immersive technologies. She presented some of her early work on VR simulation at SIGGRAPH 2023 (a leading conference in computer graphics, animation, and immersive technologies) held in Los Angeles with two recent UW graduates who worked in her lab. In Fall 2023, she traveled to Amsterdam to the first UNITE Educator Summit hosted by Unity, one of the leading game engine companies in the world. At both events, she was able to connect with researchers and educators across the world using immersive technology as well as making industry contacts. Finally, Dr. Minear worked with colleagues at Cardiff University in Wales to develop an interactive augmented reality application to assist in the teaching of difficult concepts in statistics and to further UW's partnership with Cardiff. She was able to visit Cardiff in Spring 2024 with the assistance of an International Research Grant from the University of Wyoming's Center for Global Studies. Overall, this professorship allowed Dr. Minear to pursue her goals of using immersive technologies to improve student learning and sharing her experiences with other educators.

Vacant, Milward Simpson Professorship in Political Science.

College of Business

Dr. Todd Cherry, (Ph.D., University of Wyoming) *John S. Bugas (Professorship or) Chair of Economics*

During the 2023-24 academic year, Dr. Cherry engaged with students at all levels. As the current Director of Graduate Studies, he mentored the MS and PhD students and served on multiple theses and dissertation committees. Dr. Cherry led the successful hiring of three new faculty members that will elevate the already exceptional academic standing of the Department of Economics. As Director of Graduate Studies, Dr. Cherry continues to expand and strengthen the MS and PhD programs with the largest incoming cohort of graduate students in 20 years. Dr. Cherry continues to mentor and assist graduate students in their academic and professional careers. Cherry's research addresses policy-relevant challenges, with a particular focus on energy and environmental resources. In the past year, he published multiple journal articles in leading peer-reviewed journals, including the top journal in his field *Journal of the Association of Environmental and Resource Economists* and the most highly regarded journal across all fields *Science*. Dr. Cherry continues to secure external funding to support graduate students and UW. He continues to be ranked among the top economists in his field, and in the past year, he received multiple honors for his research, including the *University of Wyoming's Presidential Scholarly Award*. Dr. Cherry completed his work as lead investigator on a National Science Foundation (NSF) funded research project that investigates the strategic and governance issues related to the emerging technologies of solar geoengineering. Dr. Cherry continues to contribute an NSF funded project to study the potential for behavioral insights to improve the performance of epidemiological models. He is a senior investigator on a \$20 million UW project that was recently funded by the NSF Track-1 EPSCoR program. Cherry is on the editorial team of four international journals, including *Resource and Energy Economics* and *Journal of Environmental Economics and Management*. He is a faculty affiliate with the Ostrom Workshop at Indiana University-Bloomington and a Senior Research Fellow in the Climate Policy Program at the Center for International Climate Research in Oslo Norway.

Vacant, *The Clara Raab Toppan Distinguished Professorship in Accounting*

Dr. Patrick M. Kreiser, (Ph.D. Entrepreneurship and Strategic Management, University of Alabama) *Rile Chair of Leadership & Entrepreneurship*

During the 2023-2024 academic year, Dr. Kreiser continued to serve in a leadership role related to the cross-campus Entrepreneurship Minor and COB Entrepreneurship Major; served as a champion and thought leader representing Entrepreneurship within the College of Business, across the University of Wyoming, and throughout the state of Wyoming; mentored and advised multiple student start-ups; served as the faculty lead for the John P. Ellbogen \$50K Entrepreneurship Competition; served on the Editorial Review Board for *Journal of Business Venturing* and *Entrepreneurship Theory and Practice* (recognized as the top two journals in Entrepreneurship); taught ENTR 4750 (Theories of Entrepreneurship), which serves as the required capstone course for the Entrepreneurship Major; taught ENTR 3700 (Innovation, Ideation, and Value Proposition), which is also a required course for the Entrepreneurship Major; and served on the College of Business Tenure and Promotion Committee. Dr. Kreiser has twice received the "COB Belt Buckle Research Award" for research productivity from the College of Business and received a COB merit-based research award for his research publications. He was promoted to Professor of Management effective Fall 2021. During the past four years, Dr. Kreiser has had eight research publications. He had a first-authored paper published in *Entrepreneurship Theory and Practice* (5-year impact factor=10.075), which is one of the top two journals in Entrepreneurship; and a first- authored paper published in *Small Business Economics* (5-year impact factor=8.164), which is one of the most recognized

journals in the field of management. He had one thousand ten (1,010) citations of his research during 2023-2024 according to Google Scholar. His overall citation count is 6,839.

Dr. Mark Leach, (Ph.D. Marketing, Georgia State University) *Mendicino Chair in Sales and Salesmanship*.

Dr. Leach's research is in business-to-business marketing and sales. More specifically, his research focuses on understanding buyer and seller relationships, leveraging the sales function to manage relationships with profitable customers, and providing effective sales training. Mark has published articles in the Journal of Business Research, Journal of Personal Selling & Sales Management, Industrial Marketing Management, Journal of Applied Social Psychology, and other leading academic journals. Mark is a member of the editorial review board of the Journal of Marketing Theory and Practice, and the Journal of Business and Industrial Marketing. Prior to joining the University of Wyoming in 2017, Dr. Leach was a member of the faculty at Loyola Marymount University and Purdue University. He has also been a behavioral research scientist at the Centers for Disease Control and Prevention. During the 2023-2024 academic year, Dr. Leach has published research examining how buyer emotions can be leveraged by sales organizations during reacquisition efforts in the journal Industrial Marketing Management. Additionally, his work examining management systems that help and hinder salesperson resourcefulness have been published in the Journal of Personal Selling and Sales Management and in Industrial Marketing Management. Furthermore, he continues to develop and refine curriculum and recruitment strategies for UW's academic programs in Professional Selling. Likewise, Dr. Leach continues to develop and expand the UW Center for Professional Selling and has brought together a team of faculty, staff, and sales practitioners to effectively establish the Center as a hub for sales thought-leadership.

Dr. Charles Mason, (Ph.D. Economics, University of California, Berkeley) *H.A. (Dave) True Jr. Chair in Petroleum and Natural Gas Economics*

During the past fiscal year, Dr. Mason taught one graduate class (Advanced Microeconomics II – Economics of Uncertainty and Game Theory; ECON 5120) and one undergraduate class (Energy Economics, ECON 4340). He directed one (1) doctoral student, two (2) master's students, and participated in the graduate committees for several students. He had three papers published, an additional paper accepted for publication, and several other papers under review for potential publication, two of which have been invited to revise for resubmission. He gave a variety of presentations, both virtually and in person, including a keynote presentation in Viet Nam; and was named as an honorary member of the French Association of Environmental and Resource Economists (joining an elite set of nine other world-renowned resource economists). He continues to serve as the Editor-in-Chief for Economics of Energy and Environmental Policy, a key publication produced by the International Association of Energy Economists. His research program is largely centered on studying oil and gas markets, including studies of oil and gas prices, motives to hold oil inventories, and the incentives for deployment of infrastructure, such as pipelines, and the implications of constrained infrastructure upon energy markets. These topics have clear relevance to the energy sector of the state, and policy relevance to the nation. Dr. Mason's research agenda also provides valuable input that allows regular updating of the undergraduate oil and gas class, which he teaches most years (and is scheduled to teach next spring), enhancing the educational value and relevance of the class. He has several projects underway, many of which directly relate to oil or natural gas markets; one of these is based on a recently awarded grant from the Sloan Foundation (shared with colleagues at the University of Texas – Austin) to study the economics of carbon capture, utilization and storage. He also was part of a team that received a grant from the National Science Foundation. Students in his undergraduate class obtain a deep understanding of the recent history of oil and gas markets, and how that informs current events. Students in his graduate class gained important skills that modern micro-economists use regularly in their

professional work. His approach to this class encourages students to speak up, and he capped the class off with a round of zoom presentations by the students. Material he discusses in that class is also amenable to public presentations, which provides visibility for the University and helps lay people better understand these markets.

Dr. Ali Nejadmalayeri, (Ph.D. Finance, University of Arizona) *John A. Guthrie Distinguished Professor of Banking and Financial Services.*

Since joining UW in August 2018, Dr. Nejadmalayeri has taught four classes (Bank Management; Bank Policy; Fixed Income Securities; Secular Stock Cycles; Blockchain and Digital Financial Services). His broad research agenda concerns the intersection of corporate finance and capital market. Most recently, he has been engaged in projects on network economics: bondholder networks and decentralized networks. Currently, he is the senior editor of *Global Finance Journal*, an A-ranked finance journal according to Australian Business Dean Council. He also co-chairs Decentralized Treasury Working Group of Blockchain Governance Initiative Network (BGIN). Dr. Nejadmalayeri was an invited speaker at the Council for Competitiveness' National Commission Phase 2 Launch Summit at UC Davis giving a talk on the "Agile Manufacturing as A Service (AMaAS)". The Council for Competitiveness is the think-tank and powerhouse behind recent the National Science Foundation's establishment of its new Directorate for Technology, Innovation, and Partnerships (TIP), through both the Senate-passed U.S. Innovation and Competition Act (USICA) and the House-passed America COMPETES Act. The Council has also played a pivotal role in the passage of CHIPS Act. Dr. Nejadmalayeri is also a member of Council for Competitiveness' working group as a field expert in "The Future of Technology: Developing and Deploying Disruptive Technologies at Speed and Scale," with the ultimate goal of building the end-of-2024 comprehensive Innovation Call to Action for the next President of the United States. During 2023-2024 academic year, Dr. Nejadmalayeri published three papers: (1) "Contingent Capital Conversion under Jump Diffusions" at *International Review of Financial Analysis* (5th highest impact factor amongst finance journals); (2) "National Culture and the Choice between Cash and Line of Credit" at *International Review of Financial Analysis* (5th highest impact factor amongst finance journals), and (3) "Stablecoins: Past, Present, and Future" at *Lecture Notes in Computer Science*. In their paper, "Contingent Capital Conversion under Jump Diffusions", Dr. Nejadmalayeri foretell the ultimate demise of banking behemoth, Credit Suisse, because of the inherent instability of their CoCo bonds. Dr. Nejadmalayeri presented at multiple conferences including the prestigious Finance Theory Group's 2023 Summer School and CBOE's Risk Management Conference. Dr. Nejadmalayeri was the recipient of the inaugural data grant from CBOE, the world largest option market, to work on "Inflation and Option Returns and Volatilities". Dr. Nejadmalayeri is additionally collaborating with the junior faculty and former doctoral students on six (5) other projects concerning corporate taxation, debt covenants, corporate disclosures, corporate bond ownership, and municipal bonds. Dr. Nejadmalayeri teaches a unique, globally recognized course in Blockchain and Digital Financial Services. The course is an in-depth and broad coverage of payment systems, applications of distributed ledger technologies in payments, central bank digital currencies, decentralized finance applications, smart contracting, and non-fungible tokens. Dr. Nejdmalayeri is also awarded to be the John and Esther Clay Honors College Faculty Fellow for which he teaches a course titled Secular Stock Cycles; a *tour de force* of the conceptual foundations of secular stock market cycles. The course starts with pioneering business cycle theory of Schumpeter and examines the enduring impacts of demography and technology in the last 200 years of U.S. stock market cycles. Dr. Nejdmalayeri's research in network economics and bondholding intimately compliments his teaching in banking, digital financial services and fixed income securities.

Dr. Chase Thiel, (Ph.D. Industrial and Organizational Psychology, University of Oklahoma) ***Bill Daniels Chair of Business Ethics***

Dr. Chase Thiel continued as the Bill Daniels Chair of Business Ethics and an Associate Professor of Management in Academic Year (AY) 2024. In addition, Dr. Thiel was named the Chair of the Management and Marketing Department. Working through [Center for Principle-Based Leadership and Ethics](#) (CPLE), which he co-founded, Dr. Thiel helped to maintain or launch several initiatives that directly benefit external UW stakeholders while enhancing the educational experience of its most important internal stakeholder--its students. Under Dr. Thiel's academic leadership, PBLE again hosted the [SparkTank](#) competition—which resulted in nearly \$180,000 being distributed to Albany County non-profits Laramie Interfaith, Safe Project, Stork Support, and Tele-Hope—the fourth annual [Wyoming Collegiate Business Ethics Case Competition](#), the [Ethical Leadership Showcase](#). The latter event brings seasoned industry leaders to UW to discuss the importance of corporate ethical leadership and to educate students on how to develop an ethical foundation for professional service. Also in AY 24, Dr. Thiel launched a Daniels Fund Faculty Fellows Program in collaboration with the Ellbogen Center for Teaching and Learning (ECTL) that funds projects to integrate principle-based ethics education into courses across the UW campus. Fellows were awarded to faculty from 5 of UW colleges. Finally, in AY 24, Dr. Thiel and PBLE took ownership of the [John P. Ellbogen \\$50k Entrepreneurship Competition](#), in which students pitch business plans for a share of \$50,000 in prize money. These activities, while somewhat diverse in nature, are unified by Bill Daniel's commitment to ethics in pursuit of business creation and participation in America's free-market system.

Under PBLE, Dr. Thiel was very active in regional outreach efforts, delivering workshops on ethics and leadership-related topics to Leadership Laramie, Wyoming Boy's State, Rocky Mountain Ace Stores, Southeast Wyoming Estate Planning Council, UW Public Relations Department, and UW Athletics. Dr. Thiel also led an executive leadership certification program for Wyoming's Enterprise Technology Services, as well as delivered training sessions at the Teaching Business Ethics and Future of Business Ethics Conferences.

Many of the above-mentioned programs, as well as others administered through PBLE, created rich learning opportunities for the students. In AY 2024, senior leadership students enrolled in the PBLE-affiliated leadership minor partnered with the Better Business Bureau of Northern Colorado/Wyoming to help Wyoming-based nonprofits become BBB-certified. Dr. Thiel also taught one section of MGT 4910 (Future of Business Ethics)—a capstone experiential course for exceptional COB students during which they compete in the Daniels Fund Business Ethics Case Competition. For the third year in a row, the undergraduate team advised by Dr. Thiel [placed at the competition](#). In addition, the graduate team Dr. Thiel advised achieved its highest placement—[2nd place in their division](#).

Dr. Thiel maintained an internationally recognized research program in AY 2024. He published or had accepted three articles—in leading management journals including the *Journal of Management*, *Journal of Organizational Behavior*, and the *Harvard Business Review*. Of note, Dr. Thiel's research on employee monitoring continues to receive widespread media attention, which made it the 2nd most cited *Journal of Management* article in 2023. Last year, this research was mentioned in premier business outlets such as BBC, CNBC, and Forbes. For his research excellence, Dr. Thiel was awarded one of UW's COB's Senior Faculty Research Award in AY 24.

Dr. Linda Price, (Ph.D. Business Administration, University of Texas at Austin) *W. Richard Scarlett III and Margaret W. Scarlett Chair of Business Administration.*

Linda L. Price is the Dick and Maggie Scarlett Chair of Business Administration and Professor of Marketing. She is globally acclaimed as a top educator, researcher, and doctoral student mentor in marketing and consumer behavior. Professor Price has received many awards for lifetime scholarly contributions. This year she received the most prestigious award given in academic marketing. She was named the AMA-Irwin-McGraw -Hill Distinguished Marketing Educator. Professor Price did her luncheon acceptance speech on the critical role of stewardship in our universities, and more generally in our treasured institutions. She also talked about this topic in a plenary session at the *Society for Marketing Advances* this year where she was named Distinguished Scholar for lifetime contributions. Concern for stewardship is a central theme for Dr. Price. It is because of her commitment to stewardship that she serves in numerous critical service positions around the world and in her department, college and university. It is also the theme in much of her past and current research. For example, Dr. Price serves on the advisory board for the major philanthropic foundation in academic marketing (the Sheth Foundation), and on the Foundation Board for the *American Marketing Association*. She is on the advisory board and/or Editorial Review Board for several journals, including top journals such as *Journal of Marketing* and *Journal of Consumer Research*. This summer she will represent the University of Wyoming as invited faculty at the prestigious AMA/Sheth Doctoral consortium, an invitation only extended to top faculty world-wide. This year she will be in the plenary Legends panel session, as well as in several other break-out sessions. For the past decade Dr. Price's service and research has been shaped by her commitment to Responsible Research in Business and Management. This year she served on numerous committees, advisory boards, and conference panels around this theme. This year she also published additional research aligned with this theme. For example, two publications in top marketing journals this year advance the ethos of resource stewardship. One publication appears in a forthcoming special issue of the *Journal of the Academy of Marketing Science* addressing Grand Challenges through better marketing. As should be evident from this brief profile of activities, Dr. Price brings lots of visibility to the University of Wyoming through her institutional service and scholarship.

Closer to home, this spring Linda received a 2024 Presidential Scholarly Achievement award. This is an especially meaningful award, because as a distinguished alumnus of the College of Business, she is especially honored to give back to University of Wyoming through her faculty teaching, research and service. Dr. Price serves as co-director of research in the college, with responsibility for assessing research funding requests, recommending research awards, and facilitating a stronger research culture. As part of this initiative, this year she co-hosted a regional research symposium, hosted an inaugural department research camp, and hosted several guest speakers. Dr. Price also serves as Director of the PhD program in the Department of Management and Marketing and on the Graduate Council. This academic year she launched several departmental initiatives to improve the pedagogical and scholarly skills of PhD students. She has also helped PhD students submit and present research at several highly competitive top academic conferences. In spring 2024, Dr. Price finished her third year of service on the University Reappointment, Tenure and Promotion committee charged with retaining, supporting and gatekeeping excellence in teaching, service, and research at University of Wyoming. Dr. Price also serves on the College of Business Assurance of Learning Committee working to align our pedagogy and evaluation processes with our objectives to recruit, develop, grow and sustain our most prized resource—our students. Truly, our students are where stewardship matters most! As a first-generation college graduate from the University of Wyoming, Professor Price loves offering support and guidance while teaching undergraduate and graduate students in the College of Business. She views this as a special opportunity to inspire curiosity, innovation, and critical thinking. Professor Price wants each of them to leave her classes with pride and confidence in what a University of Wyoming degree can do for them.

As the Dick and Maggie Scarlett chair, during the 2023/2024 academic year Professor Price was able to support students' development as teachers and scholars in myriad ways, helping them attend and present their work at conferences, participate in doctoral symposiums and consortiums, and host distinguished marketing scholars at University of Wyoming. With the support of the Dick and Maggie Scarlett chair, Dr. Price was able to represent University of Wyoming with pride in prestigious and leadership forums. She was able to pursue ambitious research on ground-breaking topics and publish that research in highly impactful journals. Without the generous support of the Dick and Maggie Scarlett chair, none of this would be possible.

Dr. Jason Shogren, (Ph.D. Economics, University of Wyoming) *Stroock Chair of Natural Resource Conservation and Management.*

After returning to his alma mater, Dr. Shogren has held the Stroock Chair of Natural Resource Conservation and Management for three decades. For the academic year 2023-24, Shogren continued to work on teaching, research, service, and outreach. Shogren taught courses in Graduate Environmental and Natural Resource Economics and Evolution of Economic Ideas, which is the capstone course for undergraduate economics students. He also participated in the job searches for five new colleagues joining the Department, which will help define the future of our Economics at UW.

He currently chairs or a committee member for several PhD and MS students within and outside of Economics. He also helps recent graduates with their research programs. In 2021, Shogren went through his five-year review of chair duties, and was unanimously recommended for reappointment. Dr. Shogren published several research articles last year. According to Google Scholar, his work has been cited over 8,400 times during the last five-year evaluation period (since 2019) and has been cited over 31,500 times over his career. He published numerous peer-reviewed papers in top general journals like Science, Nature, and PNAS and top economics journals like the American Economic Review, Journal of Political Economy, and was awarded several COB Belt Buckle Research Awards.

Shogren is on the editorial board of two international journals, he is a foreign member of the Royal Swedish Academy of Sciences, he is a fellow of the Association of Environmental and Resource Economics, the Association of Applied and Agricultural Economics, he is a fellow of the Beijer Institute of Ecological Economics, the Ecological Society of America, US Steering Committee for Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES), and he is the Chair of the Board of Trustees for the Laramie Plains Civic Center and Governor Mark Gordon re-appointed Shogren as a Board member for the Wyoming Arts Council. He has received his two Honorary Doctorate degrees: Aix-Marseille University in France and the Swedish University of Agriculture Sciences (SLU). Dr. Shogren also talked with numerous media outlets about economics throughout the year.

Endowed chairs at the University of Wyoming benefit the people in Wyoming in three specific ways: (1) help attract world-class economists to Wyoming to continue to provide effective and timely policy advice to local businesses, non-profit organizations, and local government; (2) provide a sound structure to understand better the economics of environmental, resource, and energy challenges; (3) to attract extremely talented undergraduate and graduate students to UW economics department. UW economics alumni now work to keep the cycle going—UW produces good students, who become business leaders, academics, and policy makers who continue to send us their top students. The main contribution of the Stroock chair has been through the students. Dr. Shogren enjoys working with graduate students on their ideas and helping them find their own voice. Other contributions include

working with government agencies at the State, Federal, and international level; working with scholars from other disciplines (e.g., ecology, biology, psychology) to understand better how they approach a problem. Dr. Shogren's current work in economics has focused on the economics of cost-effective prevention and control of future pandemic, biodiversity protection, climate change policy, water compacts and the integration of economics with the natural and life sciences.

College of Education

Dr. Marisa Macy will begin reporting in FY25, *John P. Ellbogen Foundation Professorship in Early Childhood Education*.

Vacant, Fisher Fund for the Advancement of Literacy.

Dr. Jenna M. Shim, (Ph.D. Language and Literacy Education, University of Albany, State University of New York) *John P. "Jack" Ellbogen College of Education Deanship Fund*

John P. "Jack" Ellbogen Dean Jenna M. Shim has supported and led a series of initiatives at the UW College of Education aimed at enhancing educational development for Wyoming's teachers and students. In response to the critical shortage of Career and Technical Education (CTE) teachers in Wyoming, Dean Shim has made it a priority to boost enrollment in the CTE teacher education program. Her efforts include hiring a CTE outreach consultant and launching a new online bridge course in collaboration with community colleges and school districts. This course has drawn a diverse group of participants, including current teachers, community college CTE students and instructors, trade workers, veterans, and others, leading to a significant increase in enrollment in the CTE BAS program to 20 students. These initiatives are largely supported by the Ellbogen Deanship Fund.

Furthermore, Dean Shim has supported faculty-led initiatives such as the Rural Teacher Corps (RTC), directed by Dr. Alison Mercier. This program, in collaboration with Teton Science Schools, involves undergraduates from the Elementary and Secondary Education Programs at the College. It focuses on place-based education, preparing future teachers to deliver community-relevant education in rural areas and is also supported by the Ellbogen Deanship Fund.

Dean Shim's support extends to other faculty outreach projects, including Dr. Margaret Hudson's Principal Mentor Certification Program, which provides mentoring for new principals in Wyoming. This program has fostered a partnership with the Wyoming Department of Education to enhance statewide training for principals through the Principal Leadership Academy, supported by the Ellbogen Deanship Fund.

Additional initiatives under Dean Shim's leadership include the Wyoming Teacher Mentor Corps, High Altitude Pathways, and the Master Educator Competency Program, alongside collaboration with the Governor's RIDE student-centered initiative.

In a short period, Dean Jenna Shim's strategic leadership and collaborative approach is already starting to advance educational development in Wyoming, particularly focusing on addressing teacher shortages, enhancing teacher recruitment and retention, and providing high-quality teacher education for the state and beyond.

College of Engineering and Applied Science

Dr. Lars Kotthoff, (Ph.D. Computer Science, University of St. Andrews) *Templeton Associate Professor of Electrical Engineering and Computer Science*

During the 23/24 academic year, Lars Kotthoff's research group and collaborators published the book "Applied Machine Learning Using mlr3 in R". It provides a practical and hands-on introduction to Machine Learning, ranging from the basics to advanced concepts, relevant to the students that Prof Kotthoff teaches in his "Practical Machine Learning" class, but also to Machine Learning practitioners in industry. Apart from Prof Kotthoff, undergraduate and graduate students at UW contributed to the book, providing them with first-hand experience in contributing to such an endeavor. Further, the Laramie Robotics Club opened its doors to high- and middle-school students, providing them with opportunities to learn about robotics and programming. The Club is supervised jointly by Prof Kotthoff and the School of Computing.

In February 2024, Prof Kotthoff co-organized a special 1-day program on Artificial Intelligence for Materials Science at one of the largest international AI conferences. The development of new and better materials, especially in the context of energy use, is a priority for UW to support the energy industry in the state, especially with respect to novel uses for coal. The program brought together researchers and practitioners from across the US (e.g. Cornell University and NASA) to explore future research directions. The involvement of Prof Kotthoff will crucially support related activities at UW.

Dr. Ryan Webb, (Ph.D. Civil and Environmental Engineering, University) *Loy and Edith Harris Assistant Professor*

Dr. Ryan Webb's Mountain Hydrology Lab group has three main focus areas: 1) Improving our ability to measure mountain snowpacks with satellites to improve water resource management, 2) Improving hydrologic forecast models by further understanding the flowpaths that snowmelt takes from hillslopes to streams, and 3) Improving our understanding of impacts from wildfire and forest management techniques on water resources in the Rocky Mountains. During the 2023-2024 academic year, Dr. Webb's lab group conducted projects within these three areas of research funded by NASA, NSF, Bureau of Reclamation, and the USGS Climate Adaptation Science Center. These projects included graduate students that assist in conducting the work with two students successfully defending their master's theses in the spring 2024 semester.

Dr. Webb's teaching during the 2023-2024 academic year included 3 courses: ES 2330 – Fluid Dynamics, CE 4650/5650 – Hydrology Field Methods, and CE 3300 – Hydraulic Engineering. The Hydrology Field Methods course is a new innovative course that Dr. Webb developed to integrate teaching with his research. This course focused on field observations for hydrologic monitoring of a watershed during both fall and spring semesters. To accomplish this, the course was 3 credits over a full year (1 or 2 variable credits per semester) where the students chose which semester to take for 2 credits based on their schedules. This allowed students to gain experience in making observations during all seasons of the hydrologic cycle from low flow in the fall to snowpack measurements mid-winter, etc. The course followed the format of a vertically integrated project (VIP) in which each group was responsible for specific components of instrumentation/monitoring. The VIP structure is designed for mentoring purposes: Dr. Webb mentored graduate students that mentored undergraduates and more experienced undergraduates mentored new undergraduates. Thus, the course was organized similar to a company with Dr. Webb as the owner. The groups came together as a larger team to assess observations and conduct data analyses. The company-like structure of the course prepared students to work within teams of people from

different backgrounds and skills to work towards a common goal of monitoring a watershed directed towards specific research and monitoring questions that are common in consulting practice.

Dr. Jonathan Brant, (Ph.D., University of Nevada, Reno) *Vincent O. Smith Professorship in Engineering*.

Dr. Brant's projects aim to reduce the energy consumption of desalination processes to make them more viable for rural communities, like those that typify Wyoming, and the oil and gas industry as it grapples with managing produced waters. A second objective is the development of new materials for recovering critical minerals from a variety of waters. The benefits of Dr. Brant's work to Wyoming include the expansion of our ability to successfully utilize our state's resources, diversification of our water resources, and environmental protection. Diversifying our water resources is particularly needed considering the ongoing drought in the Rocky Mountain Region. His research is currently developing pilot skids to evaluate advanced water treatment systems, some utilizing Wyoming coal products, at the city of Laramie's wastewater treatment plant. Our goal is to demonstrate to water managers from across Wyoming how existing and new treatment technologies may be implemented to improve our access to safe drinking water and enhance environmental protections.

During the 2023-24 academic year Dr. Brant taught three courses: Introduction to Environmental Engineering (junior level), Design of Wastewater Treatment Facilities (senior level), and Advanced Physicochemical Treatment Processes (graduate level). He supervised four post-doctoral scientists, advised one MS and one PhD student, and supervised one staff member. He was the Principal Investigator on 4 active research grants related to technology development for treating oil and gas produced waters and extraction of critical minerals, like lithium and rare earth elements, from brines. Funding agencies for these projects included the Department of Energy (DOE) and the National Science Foundation (NSF). Dr. Brant has built a spin-off company – MAGNESIS Corporation – that was awarded a three year \$4M grant to commercialize a new technology for enhancing hydrogen yield during electrolysis and transformation of organic substrates for fuel production. The MAGNESIS Corporation represents a concerted effort by Dr. Brant to add to, and diversify, Wyoming's burgeoning economy. Research products from the 2022-23 academic year include 3 peer-reviewed publications and 5 invited presentations to nationally recognized engineering firms and water boards.

Dr. Daniel Dale, (Ph.D. Physics, Cornell University) *Professor Harry C. Vaughan Professorship in Astronomy*

Daniel Dale is Professor of Physics & Astronomy and Associate Dean for Engineering & Physical Sciences. During the 2023-2024 academic year Professor Dale's primary administrative duty was to serve as the College lead for research and innovation. In addition to overseeing internal grant competitions, he also met with faculty and staff across the college to explore ways to help support research infrastructure and innovation. His favorite work as a senior administrative was to meet with and mentor both 1st year faculty and department heads. In terms of teaching, Professor Dale taught Physics II for science and engineering majors. This is a calculus-based introductory physics course for engineering and science majors. In this course he continued to experiment with incorporating AI into the process of writing lab reports. Compared to even just 12 months prior, the students in the course absolutely embraced the technology and reported that they intend to use AI in future UW courses.

Professor Dale's research focuses on star-forming galaxies. He gathers astronomical data from the *Wyoming Infrared Observatory* and NASA's *Hubble* and *James Webb Space Telescopes*. He aims to understand how galaxies convert gas clouds into stars and how the life cycles of those stars impact the formation of the next generation of stars. He published 50 refereed publications in the 2023 calendar year and oversaw a research group of five graduate students and ten undergraduate students. He has averaged 13 refereed publications per year for

the 23 years that he has been on the faculty at UW. In 2023 Professor Dale oversaw 7 extramural grants that brought \$1.05M to UW. One of these federal grants involves Professor Dale directing a summer internship program for astronomy undergraduates. A critical aspect to Professor Dale's work is the career preparation that student interns receive as they carry out research in his group. Students learn marketable skills in computer programming, public speaking, and technical writing in addition to gaining teamwork and leadership experience. Professor Dale also served as the director of the *UW Harry C. Vaughan Planetarium*, as Director of *Astro Camp* for middle school students, and as head coach of the UW Women's hockey team (for the 15th consecutive year!). Professor Dale received the Coach of the Year award from UW Club Sports.

Dr. Anthony Denzer, (Ph.D. Biological Sciences, Idaho State University) *Thomas and Shelley Botts Endowed Chair*

Dr. Denzer has served as Department Head for Civil and Architectural Engineering and Construction Management since 2015. The Department has 22 full-time faculty, 50 graduate students, and 400 undergraduate students. Undergraduate degrees in Architectural Engineering and Civil Engineering are accredited by ABET, while Construction Management is accredited by ACCE. Accreditation status is strong. Undergraduate students in all three majors pass their disciplinary exams at better rates than the national averages.

Under Dr. Denzer's leadership, the Department of Civil and Architectural Engineering and Construction Management recorded the following accomplishments and activities in the 2023-24 academic year:

- Year-to-year growth in undergraduate enrollment (continuous trend since 2017)
- Approximately 100 degrees awarded
- Record-high enrollment in online Land Surveying program
- Dozens of non-credit educational/outreach programs delivered in Transportation and Construction Management
- Student team placed 4th in US Department of Energy Solar Decathlon competition
- UW hosted ASCE symposium for the Rocky Mountain Region
- 14 patents for coal-derived materials
- WYDOT project introducing weight-based wind closure was implemented and well-received
- Faculty leadership in the UW Center for Controlled Environment Agriculture
- New funded research in: Coal-derived graphene materials; Blue hydrogen; Digital scanning of historic buildings; New methods in concrete construction; Remote sensing of coastal hydrology environments.

Dr. David Mukai, (Ph.D. Civil Engineering, University of Washington) *H.T. Person Professorship of Engineering*.

Dr. Mukai was selected as the HT Person Professor on January 23, 2024. During the Spring 2024 semester, he has benefitted engineering students at the University of Wyoming by the following activities. He has managed to hire two Engineering Science instructors to build a new Engineering Science unit (four instructors total). This unit will teach critical first- and second-year engineering courses common to many engineering curricula. Having created this unit, Dr. Mukai will now be able to coordinate these courses and be able to ensure quality and consistency across sections of individual courses. Prior to becoming the HT Person Chair, Dr. Mukai was working towards the goals of the professorship by introducing design to the College of Engineering and Physical Sciences Saddle Up sessions. He introduced a week-long design challenge involving designing and constructing a car that would be evaluated on speed, ability to protect an egg from side impact, aesthetics, and marketing. This activity has been received very well by Saddle Up attendees. Dr. Mukai is working on the third iteration of this activity for the 2024 Saddle Up program. Lastly, Dr. Mukai continues work to support engineering departments' ABET

efforts. He funded, with HT Person funds, a request for the Mechanical Engineering ABET champion to attend the recent ABET symposium. Crucial upcoming accreditation issues were addressed at this symposium. Dr. Mukai is arranging for UW attendees to the ABET symposium to report on their observations to other UW ABET accreditation champions.

In summary, Dr. Mukai's establishing a unit of Engineering Science instructors benefits almost all engineering students, the design project for Saddle Up benefits all incoming students to the College of Engineering and Physical sciences, and his support of ABET champions to attend ABET symposia strengthens programs' reaccreditation efforts as they prepare for the next review in 2027.

Dr. Maohong Fan, (Ph.D. Iowa State University; Ph.D. Osaka University) *Carrell Family Energy and Petroleum Professorship in the College of Engineering* (see SER Professor of Chemical and Petroleum Engineering).

Dr. Lamia Goual, (Ph.D., Imperial College in London, UK) *Castagne Endowment for Mechanical, Petroleum Engineering and Computer*.

Dr. Goual has held the position of A. J. Castagne Professor in the College of Engineering and Physical Sciences since 2016. Her research focuses on multiscale investigations of flow assurance, wetting phenomena, rock physics, and flow through porous media with direct applications in hydrocarbon recovery, energy storage, geological sequestration of greenhouse gases, and aquifer remediation. In the past academic year, she has taught two graduate courses: Interfacial Phenomena and Carbon Engineering. She also mentored one M.S. and three Ph.D. students to completion and hired a new postdoctoral research associate. Dr. Goual continued to be a co-principal investigator and collaborator on three major research projects on gas and foam based enhanced oil recovery funded by the State of Wyoming, the Department of Energy, the Dow Chemical Company, and Hess Corporation. She is involved with Phase II of the Wyoming Gas Injection Initiative which recently received \$25M of State matching funds for laboratory studies and field pilot testing in Wyoming. Dr. Goual co-wrote one multi-institutional grant preapplication to the Department of Energy and participated in a multidisciplinary project that led to a publication in the Journal of Environmental Science & Technology. She published six more peer-reviewed papers, one research patent application, and presented at an international conference. Dr. Goual continued serving as the Graduate Program Director of EPE and facilitated the development of graduate courses for the new Master of Engineering program in Energy and Petroleum Engineering. She co-managed the shared equipment in the EERB Hydrocarbon Laboratory for the benefit of graduate students across campus. She served on the graduate committee of eight PhD dissertations from the Center of Innovation for Flow through Porous Media. As the Associate Editor of Energy & Fuels journal, she attended the Editors meeting at the ACS Fall meeting and contributed to two special sections, including Women in Energy Research.

Dr. Jonathan Naughton, *A.J. Castagne Professorship in the College of Engineering and Applied Science*.

Dr. Naughton is the A.J. Castagne Professor in the College of Engineering and Applied Science as well as Professor of Mechanical Engineering in the College of Engineering and Physical Sciences, Adjunct Professor in the School of Energy Resources, and co-director of the Wind Energy Research Center, one of the Centers of Excellence in the School for Energy Resources. For the past 27 years, Dr. Naughton has taught fluid dynamics, heat transfer, and thermodynamics courses at the University of Wyoming with his current focus on upper division and graduate courses in fluid dynamics and aerodynamics. These courses are among those that are essential preparation for students pursuing careers in the aerospace and energy areas that are among the most popular career

choices for Mechanical Engineering and Energy Systems Engineering graduates. Fluid dynamics and aerodynamics are Dr. Naughton's area of research as well where he specializes in investigating unsteady flows that occur in flows such as those around helicopters and wind turbines. Dr. Naughton studies unsteady flows using wind tunnels, and receives funding for these activities from NASA, the Department of Defense, and the Department of Energy. Dr. Naughton supports energy and aerodynamic businesses in the state, including two companies that are spinoffs resulting from the work done by the research group. Dr. Naughton is an Associate Fellow of the American Institute of Aeronautics and Astronautics (AIAA) and a member of the American Physical Society (APS) and the Vertical Flight Society (VFS).

Dr. Dongliang Duan, (Ph.D. Electrical Engineering, Colorado State University) ***G.J. Guthrie Nicholson Professorship in Electrical Engineering.***

Dr. Dongliang Duan is an associate professor in the Department of Electrical Engineering and Computer Science, College of Engineering and Physical Science. He was the leading PI for an NSF MRI grant, under which support a hybrid real-time digital simulation platform which could conduct real-time simulations of large power systems was acquired. The major goal for his Nicholson professorship was to further promote the usage of the platform for various interdisciplinary research on power system monitoring, optimization, and cyber security issues and for strengthening our power engineering curriculum.

During the AY 2023-2024, Dr. Duan taught an interdisciplinary course on "signal processing for power systems," where signal processing techniques to conduct power system monitoring are introduced to students. The students would use the simulator generated data to practice the algorithms they learned in this class. Dr. Duan collaborated with faculty members at Colorado State University (Drs. Wang and Kokoszka) to further utilize the simulation platform to study cyber attack detection for large transmission networks, which resulted in one journal paper and one NSF proposal submission. In addition, he worked with Pacific Northwest National Laboratory on another DoE Lab Call proposal which also leverage the usage of our simulation platform for the research on the monitoring and big data analysis for power systems with large-scale renewable generations. The proposal was invited for final-round review by DoE. Furthermore, we also started to collaborate with the University of North Dakota (UND) and provided them the access to our simulation platform to facilitate their research on federated learning in power systems, which is supported by DoE. With this collaboration, UW also submitted a collaborative NSF proposal with UND.

Dr. Mohammad Piri, (Ph.D. Petroleum Engineering, Imperial College London) ***Thomas and Shelley Botts Endowed Chair in Unconventional Reservoirs in the College of Engineering and Applied Sciences*** (See WY Excellence Endowment Report)

Dr. Mohammad Piri, (Ph.D. Petroleum Engineering, Imperial College London) ***Alchemy Sciences Petroleum Engineering Chair*** (See WY Excellence Endowment Report)

Vacant, E.G. Meyer Family Visiting Industry Professorship

E.G. Meyer has restructured this gift, and it will not be a Professorship in the future.

Dr. Minou Rabiei, (Ph.D. Applied Statistics-Reservoir Engineering, Curtin University of Technology, Perth) *Lynch Engineering Excellence Professorship*

Dr. Rabiei is an associate professor in the department of energy and petroleum engineering with a research and teaching focus on data analytics and machine learning applications in the energy industry. She is actively collaborating with faculty within and outside of her home department, as well as other universities and industry partners, which resulted in securing \$1,111,000 of internal and external grants and submitting three additional proposals to the amount of \$2,320,000, pending decision. A \$758,000 funding from the US Department of Transportation, supports a three-year project to develop an integrated knowledge graph model to monitor geohazards impacting the integrity and safety of pipelines transporting gas and hazardous materials. Her expertise is applicable and crucial in many industry-related challenges in both fossil and renewable energy, which is evident from the range of projects she is currently leading. Dr. Rabiei is mentoring 6 Ph.D. students, working on various projects in upstream and midstream petroleum related topics as well as hydrogen generation and subsurface storage. In 2023, she published 5 peer reviewed papers in high impact journals resulted from her research collaborations. On the teaching front, she enriched the department's petroleum-focused curriculum with cutting-edge topics in data analytics, ensuring students gain practical skills in applying machine learning techniques to solve real-world energy challenges. Her courses include hands-on projects and case studies that bridge the gap between theoretical knowledge and practical applications of modern data-driven technologies in the industry. She also led the efforts for establishing a new master's program with energy data analytics specialization at the department of energy and petroleum engineering, to be launched in Fall 2024. Overall, her contributions extend beyond academia into enhancing industry safety standards, optimizing operational efficiencies, and influencing regulatory frameworks in the energy industry.

Dr. Cameron Wright, (Ph.D. Electrical and Computer Engineering, University of Texas at Austin) *Carrell Family College of Engineering and Physical Sciences Deanship, and Professor of Electrical and Computer Engineering.*

Dean Wright has over 41 years of experience in electrical and computer engineering, and served in various leadership positions in research and development units of the Department of Defense during his 30 year military career prior to joining the faculty of the University of Wyoming in January of 2003. His previous academic appointment prior to UW was as Professor and Deputy Department Head of the Electrical Engineering Department at the U.S. Air Force Academy. He has held a Professional Engineer license for 34 years and is the author or co-author of over 260 publications including a best-selling textbook on real-time digital signal processing. He has served as an expert witness in federal court for technology-related intellectual property cases. Dr. Wright has served as Dean since 2019, and in August of 2022 was appointed as the inaugural Carrell Family Dean of the College of Engineering and Physical Sciences.

In 2024, Dean Wright led the final stages of the reorganization of the college as it transformed from the College of Engineering and Applied Science to the College of Engineering and Physical Sciences. This reorganization involved bringing four new departments into the college (Mathematics & Statistics, Chemistry, Physics & Astronomy, and Geology & Geophysics), as well as a merger of the former Department of Electrical & Computer Engineering with the Department of Computer Science to form the Department of Electrical Engineering and Computer Science. The new college is comprised of 10 academic departments, along with the School of Computing, the Wyoming Geographic Information Science Center (WyGISC), and the Susan McCormack Student Success Center. Due to the reorganization, the number of faculty and staff members is approximately double the previous number, and the college is now the second largest college by enrollment at UW. Dean Wright

also led efforts to engage the college with a wide variety of companies in Wyoming; helped recruit multiple out-of-state companies to locate a new presence in Wyoming; continued to encourage and advocate for commercial spinoffs/startups from the college, such as Resono, Wyonics, CellDrop, Cowboy Clean Fuels, and Uplink Robotics; and worked closely with UW Foundation to secure over six million dollars of total philanthropic fundraising in the past year.

Dr. Francois Jacobs, (Ph.D. Education Human Resources Studies in Construction Management, Colorado State University) *Roy L and Caryl L Cline Distinguished Professor in Engineering*.

Dr. Jacobs has been steering the Construction Management (CM) program in the College of Engineering since 2019. The CM program continues to experience significant milestones through continues student growth, strong industry support and a 100% placement of construction management students upon graduation. More on the CM program can be viewed here; <https://www.uwyo.edu/civil/construction-management/index.html#>, with specific reference to the program's "ACCE" accreditation accomplishments, student activities, and reference to the Senior Capstone class who have scored for a second year in the a row 3% above the National average on the "Nationalized AIC" certification exam. Dr. Jacobs has also engaged in the recruitment of Dr. Theo Haupt, a two-semester visiting professor from Nelson Mandela University in South Africa. The CM program launched the following two industry funding platforms during the last year in support of industry alignment and fund raising. The first platform "Evening with Industry" https://www.uwyo.edu/civil/evening_with_industry.html where 11 construction companies have supported the event through funding and placement of students. The second platform "Construction Management Industry Partner Program" with four major industry sponsors between \$3,000 and \$5,000 level to help support with program initiatives. The CM program has also launched an "Summer Internship Website" https://www.uwyo.edu/civil/construction-management/construction_management_internships.html on the successful tracking and reporting of students who interned across the country. Dr. Jacobs, continues to steer the "Construction High School Training" program across the state of Wyoming <https://www.uwyo.edu/civil/construction-high-school-training/index.html> with a total of 87 high school students enrolled in this year's co-hort. Dr. Jacobs further steers the "Construction Workforce Training" program <https://www.uwyo.edu/civil/construction-training/index.html> that has been an active workforce training platform across the state since 2020. Both the high school and workforce training programs are grant supportive initiatives funded by the State of Wyoming at large, with a third grant proposal by the National Association of Homebuilders (NAHB). Dr. Jacobs has also been elected as a member to the Board of the Southeast Wyoming Builders Association (SEWBA). In conclusion, the "Assessment Institute", <http://ec2-3-15-172-130.us-east-2.compute.amazonaws.com/home>, a UW start-up company steered by Dr. Jacobs continues to provide assessment services to various academic departments across campus through the Elbogen Center for Teaching and Learning (ECTL).

Dr. Haibo Zhai, (Ph.D. Environmental Engineering, North Carolina State University) *Roy L and Caryl L Cline Distinguished Chair in Engineering*. (See WY Excellence Endowment Report)

Dr. Vladmir Alvarado, (Ph.D. Chemical Engineering, University of Minnesota) *Gene Humphrey Professorship*

No report was received from Dr. Alvarado.

Dr. Varnegh Rasouli (Ph.D. Rock Mechanics, Imperial College London) ***Le Norman Endowed Leadership Chair in Petroleum Engineering***

During last year, like the prior year, Dr. Rasouli continued to use the LeNorman Endowed fund to support research faculty and several Ph.D. students. This endowed fund, leveraged by other funds including the School of Energy Resources (SER) and a Department of Transportation (DOT) federal grant, helped us to expand the research team and boosted our research outcome with over 30 publications and attendance of several State and national conferences and workshops during last year.

The faculty supported through this fund delivered 3 courses over 2 semesters for Undergraduate students and the Teaching Assistant support by Ph.D. students provided enhanced the learning of the undergraduate students.

Through the collective support of this endowed fund and School of Energy Resources (SER) we were able to build a new geomechanics equipment for characterization of Wyoming's Shale formations. Similarly, the use of the endowed fund with support of the College of Engineering and Physical Sciences (CEPS), helped us to purchase some equipment as part of the "Integrated Lab" that we have proposed to establish in 2024. This lab will be part of the larger scale "Top 5 in 5" initiative that the department has developed with the support of the Industry Advisory Board (IAB) to promote the department to the top 5 programs in the nation within the next 5 years.

Dr. James Ward (M.S. Computer Science, University of Wyoming) ***General Samuel Phillips Professorship for Instructional Excellence***

Mr. Ward is a faculty member of the Electrical Engineering and Computer Science Department, since 2001. He is the General Samuel Phillips Professorship for Instructional Excellence. He focuses on undergraduate teaching and research with the nUWtech lab. He went to the Technical Symposium on Computer Science Education (SIGCSE TS) which is organized by the ACM Special Interest Group on Computer Science Education (SIGCSE) and is the organization's flagship conference.

The nUWtech Lab provides undergraduate research opportunities to engineering students by housing equipment such VR headset, robots, and mobile devices such as android phones. The students can use the equipment in the lab that would be far too expensive for them to purchase on their own. This equipment also is used to support many electrical engineering and computer science courses such the mobile programing, advanced mobile programming, virtual reality, and augmented reality courses. As well as our senior design I and II course, plus the honors capstone projects. It is also used for an independent study course for students that wish to do research on topics of their own design. This has been a boon to our students, as they have a place to work on topics and interests that excite them to both get jobs after their undergraduate degree or to get them interested in continuing to a masters or Ph.D.

Interdisciplinary

Vacant, Liliane and Christian Haub Professorship

Dr. John Koprowski, (Ph.D. Biology (Systematics and Ecology), University of Kansas) ***International Wildlife Conservation Chair***. (See WY Excellence Endowment Report)

Dr. Drew Bennett, (Ph.D. Geography, Oregon State University) *Whitney MacMillan Program in Private Lands Management in the West*

Dr. Bennett leads the MacMillan Private Lands Stewardship Program which includes ten members including research scientists, a post doctoral research fellow, graduate students, and undergraduates working on a range of outreach, engagement, and research projects relevant to the stewardship of private lands in Wyoming and the West. Dr. Drew Bennett's teaching supported students in developing their research projects by incorporating rigorous methods and focusing on impact to key stakeholders. Dr. Bennett also worked with the Wyoming Stock Growers Land Trust to offer a paid internship for a University of Wyoming student to gain practical experience in the agricultural land conservation field.

During 2023-24 academic year, Dr. Bennett authored or co-authored three peer-reviewed journal articles and a book chapter. He also authored or co-authored 3 research reports including leading a report focused on strategies to manage water shortages in the Colorado River Basin, including Wyoming's Upper Green River Basin. Insights from this study can support state water managers and the irrigators in identifying pathways to addressing long-term drought. The report received broad media coverage in regional and national press including Denver's 9News, 850 KOA, and The Hill. To advance his research program, Dr. Bennett received a prestigious U.S. Fulbright Scholarship to study natural capital investment in Australia in collaboration with the Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia's national science agency. He will be a visiting scholar at CSIRO's Black Mountain campus in Canberra during the Spring 2025 semester. Dr. Bennett's receipt of a Fulbright award contributes to raising the University of Wyoming's international reputation.

Through his outreach program, Dr. Bennett co-organized a 2-day workshop for a second year with leaders in the U.S. Department of Agriculture's (USDA) Natural Resource Conservation Service and regional land trusts to identify strategies to better support landowners in the region through the USDA's agricultural conservation easement program. Participants shared outcomes from the workshop with USDA leadership and other partners to support adoption of the workshop insights. To engage students in outreach, a graduate student in the MacMillan Program partnered with two Wyoming land trusts to develop geospatial tools to analyze environmental and social data to more effectively conduct their work. Dr. Bennett and other MacMillan Program team members also continue with research on the implementation of a collaborative effort between the State of Wyoming and USDA to conserve big game on private working lands in the state. These collective efforts support the stewardship of private lands in Wyoming and the West.

Dr. Steven Smutko, (Ph.D. Economics, Auburn University) *Eldon & Beverly Spicer Chair in Environmental and Natural Resources.* (See WY Excellence Endowment Report)

Dr. Jacob Hochard, (Ph.D. Economics, University of Wyoming) *Knobloch Chair/Professorship in Conservation Economics.*

During the 2023-2024 academic year, Dr. Jacob P. Hochard, now the Knobloch Associate Professor of Conservation Economics at the University of Wyoming, made substantial contributions to education, research, and public engagement. He taught courses on "Approaches to ENR Problem Solving" and "Sustainable Ecotourism," the latter involving a unique field experience in Tenerife, Canary Islands. Demonstrating his commitment to student mentorship, Dr. Hochard supervised three MS Environment and Natural Resources graduate students, one undergraduate research assistant, one Ph.D. student, and served on over ten MS, JD/MA, and Ph.D. committees. He successfully managed over \$1.5 million in research funding from The Nature

Conservancy, U.S. Environmental Protection Agency, and the Knobloch Family Foundation. Dr. Hochard continued his role as a lead author on the IPBES business and biodiversity assessment, presenting findings in Bogota, Colombia. His research efforts included completing natural wealth accounts for Wyoming's elk population and initiating accounts for mule deer and pronghorn. He also completed a two-week visiting fellowship at the UCross Foundation in Clearmont, WY, and received approval for a "Wyoming Resource Wealth Institute" set for June 2025. Dr. Hochard co-hosted an interdisciplinary and international wildlife management conference at the University of Wyoming and participated in The Teton Group's fall meeting at the Teton Science School. His scholarly work resulted in publications in high-impact journals such as *Science*, *Environmental Science and Technology*, and the *Journal of the American Water Resource Association*, as well as a book chapter in "From Local to Global: Eco-entrepreneurship and Global Engagement with the Environment." Dr. Hochard's leadership continues to advance the field of conservation economics through impactful research, substantial funding achievements, and dedicated student mentorship.

School of Energy Resources

Dr. Caleb Hill, (Ph.D. Chemistry, University of Alabama) *J.E. Warren Chair of Energy and the Environment*.

Dr. Hill teaches in the Department of Chemistry at UW and is an internationally recognized scholar working in the fields of electrochemistry and separations. His group's work aims to generate new fundamental insights into energy conversion and storage, sensing, and chemical separations relevant to critical materials recovery and nuclear fuel cycles. Dr. Hill also serves as co-Director of the Nuclear Energy Research Center (NERC) within the School of Energy Resources which works to develop new nuclear-focused research programs at UW to support the state's burgeoning nuclear industry. In addition to his academic roles at UW, Dr. Hill is Chief Technology Officer and Co-Founder of Wyonics LLC, a Laramie-based scientific startup whose mission is to develop sustainable technologies to address economic and environmental challenges within Wyoming. Dr. Hill's work has been recognized through numerous honors and awards, including a prestigious CAREER Award from the National Science Foundation.

In 2023, Dr. Hill served as Principal Investigator (PI) on more than >\$2M in external grants and contracts to UW from sources such as the National Science Foundation, Department of Energy, and the Nuclear Regulatory Commission. These funds support the work of 7 graduate students and 5 undergraduate students in Dr. Hill's lab at UW. In 2023, Dr. Hill's lab produced numerous peer-reviewed publications and presentations at national professional meetings and universities across the U.S. In his role as co-Director of NERC, Dr. Hill secured new grants supporting the development of nuclear-relevant infrastructure at UW and research in molten salt systems for nuclear applications. He has also worked to establish collaborations between researchers at UW and prominent industry partners such as BWXT and support the development of a wider nuclear industry in Wyoming through work with state legislators and the Intermountain-West Nuclear Energy Corridor. Dr. Hill's Laramie-based startup, Wyonics, continued work on Department of Energy-funded projects in nuclear forensics and rare earth element separations. Our first commercial products from this work, which supports several UW graduates and current students as full-time employees at Wyonics, are expected in the Fall of 2024.

Dr. John Kaszuba, (Ph.D. Geochemistry, Colorado School of Mines) *John and Jane Wold Chair of Energy*. (See SER Associate Professor of Geology and Geophysics)

Dr. Tara Righetti, (J.D. Law, University of Colorado Boulder) *Occidental Petroleum Corporation Chair in Energy and Environmental Policies (OPCCEP)* (See SER Associate Professor of Law).

Dr. Saman Aryana, (Ph.D. Energy Resources Engineering, Stanford University) *Occidental Petroleum Corporation Chair in Energy and Environmental Technologies (OPECCEET)*.

Saman Aryana is a Professor and the Occidental Chair in Energy and Environmental Technologies, as well as the Head of the Department of Chemical and Biomedical Engineering (CBE). He recently received a Fulbright U.S. Scholar Award to Australia, where he will engage with the University of New South Wales, Sydney, studying and exchanging ideas on topics related to energy engineering and bring more global perspectives to bear on energy transition. He assumed CBE Department Head duties in late 2023 Spring. During his tenure, the department has grown from seven to ten faculty members and is currently working diligently to add up to three more in preparation for Fall 2024. Additionally, Dr. Aryana co-led visits to PUC-Rio, Brazil, and Yachay Tech, Ecuador, to develop collaborations and joint graduate programs. UW has now signed an agreement with Yachay Tech, which CBE hopes to leverage going forward in expanding its programs. He also chaired the UW Graduate Council (GC), a standing committee of the Faculty Senate, which developed the proposed bylaws of the UW School of Graduate Education among other initiatives.

Dr. Aryana served as a Lead Scientist in a US Department of Energy Frontier Research Center (CMC-UF - Center for Mechanistic Control of Unconventional Formations). His research lab integrates experimental, theoretical, and computational tools for developing a deep understanding of fluids in extreme geological environments, such as shales and tight rocks that play a crucial role in subsurface fluid storage. His lab also led an investigation of a class of non-Newtonian fluids for engineering subsurface reservoirs for energy storage and containment applications. A significant aspect of Dr. Aryana's work with the School of Energy Resources (SER) involves studying the Mowry shale and its response to reservoir stimulation. Additionally, working with the SER Hydrogen Energy Research Center, his lab is currently studying the thermophysics of hydrogen and the potential for Wyoming coal, energy, and water resources for at-scale hydrogen production and capacity-building as part of the nation's future energy mix. His research group disseminates their findings through scientific journals and international conferences. Dr. Aryana organized and chaired the 15th International Symposium on Wettability and Porous Media, often referred to as the Wettability Symposium, from October 23 to 25 in Laramie, Wyoming. The meeting was sponsored by the UW Center for Global Studies of the Global Engagement Office, the Department of Chemical & Biomedical Engineering at UW, and the Petroleum Research School of Norway (NFiP). It hosted 45 participants from around the globe, including 5 members of the National Academy of Engineering of the US. Dr. Aryana was the primary convener and the co-chair of two sessions titled 'Underground Storage of Carbon and Energy: Understanding the Physics and the Regulatory Landscape' at the 2023 American Geophysical Union Fall Meeting. He is also a co-organizer and co-chair of a session at the 15th Annual Meeting of the International Society for Porous Media. He serves on the scientific committee and chairs a session of the 2024 Society of Petroleum Engineers Improved Oil Recovery meeting, is a member of the technical committee of the 37th International Symposium of the Society of Core Analysts, and the steering committee of the 2025 Wettability Symposium planned for Australia. He continues his mentorship as the faculty advisor to the UW Student Chapter of the National Society of Black Engineers

University Libraries/Honors College

Janice Grover-Roosa, (M.L.S. Library Science, Emporia State University; MA, University of Wyoming) *Carol J. McMurry Endowed Librarian for Academic Excellence*.

Ms. Grover has contributed to the enrichment of the academic experience at the University of Wyoming through her research and instructional activities. In 2023, Ms. Grover and her colleague, Jessica Rardin, implemented the innovative "What's All That Racket in the Library? Adapting Supermarket Sweep for New Student Orientation" as part of the Coe Library's commitment to the Saddle Up initiative. Presented at the virtual Lifelong Information Literacy Conference hosted by the University of California, Irvine, this program introduced librarians to orientation programming designed to introduce first-year students to library resources in a dynamic and engaging way, enhancing their academic integration and retention.

In 2024, Ms. Grover continued to impact educational practices by codeveloping "ChatGPT for Assessment: A Compassion Audit Framework for First-Year Students," which was accepted at the Teaching & Learning with AI Conference in Orlando. This initiative utilizes AI to assess and enhance the emotional and cognitive engagement of first-year students, directly benefiting their academic success and well-being. Also in 2024, Ms. Grover's Colloquium I and II instructional efforts were recognized with the Promoting Intellectual Engagement in the First Year (PIE) Award, acknowledging her innovative contributions to improving student engagement and success. These initiatives not only benefit students but also extend their impact to Wyoming businesses, industries, and residents by fostering a more educated and engaged community.

College of Health Sciences

Doug Petersen, (Ph.D. Disability Disciplines with an emphasis in Speech-Language Pathology, Utah State University), *Maggie and Dick Scarlet Chair in Speech-Language Pathology*.

This is Dr. Petersen's second year as the Maggie & Dick Scarlett Chair in Speech-Language Pathology. During the 2023-2024 school year, Dr. Petersen has been able to further validate innovative assessment approaches that can accurately identify children who have dyslexia and language disorder. Dr. Petersen also conducted research which focused on intervention approaches that specifically addressed the needs of children who have dyslexia, developmental language disorder, and reading comprehension difficulty. The results of those research studies have significantly affected the way in which school districts in Wyoming and across the world identify children who have specific language and literacy needs and have helped shape the way intervention is provided. Specifically, Dr. Petersen collaborated with school districts across the state of Wyoming and across the world to implement the major revision of his universal screening and progress monitoring assessment, which is available to download without cost. This assessment is currently used by thousands of speech-language pathologists and other educators in many school districts across Wyoming, in every state in the U.S., and in over 30 countries. This universal screener and progress monitoring tool validly identifies children who are currently having difficulty with oral language and decoding skills necessary for successful reading comprehension and writing and provides a way to monitor progress to intervention over time.

Dr. Petersen also finalized the validation of a new dynamic assessment of language and reading which will be the first nationally norm-referenced dynamic assessment ever published. This dynamic assessment will greatly alter the way in which educators across the world can accurately diagnose culturally and linguistically diverse children with developmental language disorder and dyslexia.

Additionally, Dr. Petersen was actively engaged in research that investigated the implementation of multi-tiered systems of language support in classrooms across the U.S. His focus on improving the oral language of students so that they can have greater success with reading comprehension and writing has garnered considerable attention. He was frequently asked to participate in world-wide webinars and podcasts and to present at national and international conferences. Dr. Petersen's work is becoming increasingly recognized by not only the SLP community, but by the teacher education community and reading specialists. Dr. Petersen continues to spend considerable time building collaborative relationships with other researchers and educators across the state of Wyoming and across the world. His work is making a major impact on educators and students across the world, and he is just getting started.

College of Law

Jacquelyn Bridgeman, (J.D. Law, University of Chicago), *Kepler Distinguished Professorship of Law*.

Jacquelyn Bridgeman is the Kepler Distinguished Professorship of Law. In FY 2024, Professor Bridgeman stepped down from her position as the Director of the School of Culture, Gender, and Social Justice and returned full-time to the College of Law faculty, where she plans to devote more of her time to high impact projects. Towards that end, Professor Bridgeman became more involved in the work of the prestigious American Law Institute, to which she was elected a member in fall of 2022, joining the member consultative groups for Copyright law and Constitutional torts. Thus far she has enjoyed working with leading lawyers, judges, and academics throughout the country to improve the law and the legal system. Professor Bridgeman continued serving as the magistrate judge for the Albany County Integrated Juvenile Treatment Program (juvenile drug court). In addition to her regular judge duties, Professor Bridgeman also continued work with the drug court team and other community stakeholders in further developing both the traditional drug court as well as two pilot programs that are the only programs of their kind in the country. These two unique programs are designed to better meet unmet needs of Albany County youth and their families, and serve as models for similar courts around the country, particularly those operating in rural spaces. Professor Bridgeman also served on the committee appointed to facilitate the movement of oversight of the Wyoming Treatment courts from the Wyoming Department of Health to the Wyoming Supreme Court and served on the subcommittee that drafted the Wyoming Treatment Court Standards that were adopted in spring 2024. In this past year, Professor Bridgeman, along with four co-authors, finished the book *College Success for Students of Color: A Culturally Empowered, Assets-Based Approach*. An accessible guide to help students from marginalized communities succeed in higher education, this book will be published in fall 2024 by Teachers College Press of Columbia University. Professor Bridgeman taught courses on Race, Gender, and the Law, and Employment Law in fall 2023, and has spent spring 2024 researching her next book which focuses on issues of equality.

Stephen M. Feldman, (J.S.M. Law, Stanford University, J.D. Law, Oregon State University), *Jerry W. Housel/Carl F. Arnold Distinguished Professor of Law*.

Professor Feldman has been the Jerry W. Housel/Carl F. Arnold Distinguished Professor of Law and Adjunct Professor of Political Science since 2002. His recent publications include the following: Free Speech, Social Justice, and *Brandenburg*, in "Fight Like Hell": Free Speech and Incitement in the Twenty-First Century (Eric T. Kasper & JoAnne Sweeney eds., State University of New York Press, forthcoming); Blinded by the White: The Nation's Fatal Flaw, 33 Cornell J. Law & Public Policy _ (forthcoming); and Searching for Truth that Speaks to Power: Free Speech and Equality on Campus, 73 Am. U. L. Rev. 807 (2024). As he does regularly, Professor

Feldman taught Constitutional Law I, Constitutional Law II, and Jurisprudence. His research and writing projects emphasize national concerns and are of national interest. As such, they benefit the University of Wyoming, the state of Wyoming, and Wyoming residents. His articles and essays consistently rank in SSRN's Top Ten Percent Total New Downloads List as well as SSRN's Top Ten Percent Total All-Time Downloads List. His readership report from the Law Archive of Wyoming Scholarship shows over 10,000 downloads. He is the faculty adviser for the American Constitution Society Wyoming student Chapter.

Jason Robison, (J.D. Law, University of Oregon, S.J.D. Law, Harvard University), *Carl M. Williams Professor of Law & Social Responsibility*.

Professor Jason Anthony Robison is the Carl M. Williams Professor of Law & Social Responsibility at the UW College of Law, as well as an Adjunct Professor at the UW Haub School of Environment and Natural Resources. Professor Robison has taught a variety of courses since joining the UW faculty in fall 2013, and his regular teaching package includes courses on Federal Courts, International Environmental Law, Water Law & Policy, and Advanced Water Law & Policy. Federal Courts is instrumental for law students' general legal education, and the other 3 courses are core components of the law school's Environment, Energy, and Natural Resources program, which for more than a half century has had an impressive legacy in the field of Water Law & Policy. Professor Robison taught Federal Courts and Water Law & Policy during fall 2023, and he is on sabbatical during spring 2024.

Professor Robison's research, writing, and speaking engagements during the 2023-2024 academic year focused largely on Water Law & Policy. Serving as faculty advisor to *Wyoming Law Review*, Professor Robison assisted the editors with soliciting articles for and publishing a symposium issue focusing on a topic of much importance to the State of Wyoming, transboundary water management, in this case at the international level—specifically, the case of *Chile v. Bolivia* at the International Court of Justice. Professor Robison wrote an epilogue for the issue—*What Is the Río Silala?*, 23 Wyo. L. Rev. 2 (2023)—and helped organize the symposium itself in November 2023. In addition to this work, Professor Robison devoted considerable attention during the 2023-2024 academic year to the Colorado River—again, a topic of much importance to the State of Wyoming. He delivered several presentations about the U.S. Supreme Court's recent decision addressing tribal water rights, *Arizona v. Navajo Nation*, and ongoing policy developments surrounding the Colorado River as a new management framework is negotiated for it between now and 2027. In this line of work, Professor Robison wrote *Relational River: Arizona v. Navajo Nation & the Colorado*, 72 UCLA L. Rev. ____ (forthcoming 2025), and *The Changing Colorado*, 59 Idaho L. Rev. ____ (forthcoming 2024). Finally, as an overlay to the preceding endeavors, Professor Robison invested considerable time during the 2023-2024 academic year into revising his treatise on U.S. and international water law, *Law of Water Rights & Resources* (forthcoming 2024).

James Delaney (J.D. Law, Gonzaga School of Law), *Carl M. Williams Centennial Distinguished Professor*.

During the academic year 2023-24, Professor Delaney taught four courses at the College of Law. He taught Trusts & Estates, Business Entities Taxation, Federal Income Taxation, and Estate & Gift Taxation. For many years prior to the 2023 academic year, Professor Delaney taught Contract Law. In the fall of 2023, the College of Law administration asked Professor Delaney to teach Trusts & Estates in lieu of teaching Contract law. Based on these teaching efforts, the College of Law's Class of 2024 voted Prof. Delaney as one of three outstanding Professors for the 2023-2024 academic year. As an outstanding faculty member, Prof. Delaney performed as a "hooder" during the graduation ceremony in May 2024. Hooders have the distinct honor of fitting the doctoral hood on

each graduate as they cross the stage during the graduation ceremony. Further, based on his outstanding teaching and other service to the College of Law, in the fall of 2023, Dean Alexander honored Professor Delaney by awarding him the University of Wyoming College of Law Extraordinary Merit Award.

With respect to scholarship, Prof. Delaney authors two books that he continues to update. He authors Federal Income Tax, Carolina Press Q&A Series. The second edition released for publication in the fall of 2018. He also authors Federal Estate & Gift Tax, Carolina Press Q&A Series 2009/2012/2019. The Third Edition was released for publication in the fall of 2019. Prof. Delaney co-authors this second book with Prof. Elaine Hightower-Gagliardi, University of Montana School of Law. These two books are both extensively used by Wyoming law students in their legal studies. They are also used regionally and by many law students across the nation. In the spring semester of 2024 Prof. Delaney began working on and co-authoring Recent Developments in Federal Income Taxation: The Year 2024. When finished, this manuscript will be submitted for publication in the 2025 summer volume of the Tax Lawyer. It will be co-authored with Prof. Bruce A. McGovern, V.P., Associate Dean of Academic Administration, and professor of law at the South Texas College of Law, Houston and Prof. Cassady V. Brewer, Professor of law at Georgia State University College of Law.

Sam Kalen, (J.D. Law, Washington University), *William T. Schwartz Professor of Law*.

Sam Kalen is the William T. Schwartz Distinguished Professor of Law and teaches and is the Associate Dean at the College of Law. Professor Kalen is a nationally recognized energy, environmental, public land, and natural resources professor. He co-authored one (1) of the most comprehensive histories of the nation's energy policies, Energy Follies (published by Cambridge University Press) along with his co-author who was one of most renowned energy experts in the nation. He is a co-author of one (1) of the principal natural resources casebooks used in law schools across the country. He also is a co-author of one (1) of the principal practice books, published by the American Bar Association, on the Endangered Species Act. He is routinely asked by and quoted in the national news on matters related to energy and public lands and has testified twice before the U.S. Congress on critical minerals. During the last two (2) decadal anniversaries of the National Environmental Policy Act, he has written or spoken at principal celebratory events and is in the final stages of completing the most comprehensive manuscript on the evolution of ecology and its connection with the development of that Act. Professor Kalen also has authored numerous scholarly articles and book chapters, including publishing in such highly regarded legal law reviews as the Maryland Law Review, Florida Law Review, Colorado Law Review, Marquette Law Review, Rutgers Law Review, Env't. Law Reporter, Ecology Law Quarterly, NYU Environmental Law Journal, and Duke Environmental Law and Policy. Indeed, one of his early articles was cited and quoted in a U.S. Supreme Court opinion. Most recently he published an article on one of the emerging issues in administrative law, of importance to all practicing attorneys. In addition, in 2024, he published a law review in the Administrative Law Review, one of the most highly regarded national law reviews in the field of administrative law. He just finished collaborating on a chapter in an international law book, as well. And more significantly, this past fall he was honored to be selected to deliver the annual Gilbert and Sarah Kerlin Lecture on Environmental Law at the Elisabeth Haub School of Law, the nation's currently top ranked environmental law program. Mr. Kalen's activities and teaching continue to have a direct and relevant benefit to the State of Wyoming. He lectures and speaks on topics ranging from the future of our electric grid to resource development on public lands. He recently appeared at an energy law professors' conference and spoke about the Federal Energy Regulatory Commission (in May 2024). And he chaired the Public Land Section for the 2024 Annual Meeting of the Foundation for Natural Resources and Energy Law (FNREL) (formerly the Rocky Mountain Mineral Law Foundation). Even

more recently, he served as a speaker in a special webinar on how a new regulation might affect oil and gas activities. Professor Kalen founded and is now the co-Director of the Gina Guy Center for Law and Energy Resources in the Rockies and helps organize the annual CLERR Landscape Discussion on Energy Law and Policy. While serving as the Associate Dean, he generally teaches in the environmental law and public lands and energy realms, and of note in the summer of 2024 he taught a field course on public lands and natural resources, with an emphasis on issues of concern in Wyoming, and the course was taught at the AMK ranch and it included law students from both the University of Wyoming College of Law and the Elisabeth Haub School of Law. These are all matters of acute interest to Wyoming. He serves as the College of Law's trustee to, and serves on the credentials committee for, FNREL, and he serves on the book publishing board for the American Bar Association's Section on Environment, Energy & Resources (for which he was a past chair).

Melissa Alexander, (J.D. Law, University of Virginia), *Carl M. Williams Professor of Law & Ethics*.

Professor Alexander teaches Health Law, Bioethics, Intellectual Property, and Civil Procedure in the College of Law. She was previously a partner at a 600+ attorney law firm and utilizes her decades of experience to bring a practice-oriented approach to teaching, service, and scholarship. Professor Alexander is the recipient of a law-school wide teaching award and has published extensively on health law and policy, often focusing on health economics, health equity, and realizing autonomy. She has advised the Wyoming Department of Health as Co-Chair of the Public Health Ethics Committee and also serves on Ivins Memorial Hospital's Ethics Committee.

In fall 2023, Professor Alexander was on sabbatical. During her sabbatical, she finished writing [Questions & Answers: Health Law](#) (Carolina Aca. Press 2024), a comprehensive health law resource which should enhance student success and aid institutional excellence. This co-authored book has twenty-five chapters on topics as diverse as antitrust, reproduction, tax, medical aid in dying, and EMTALA laws. For years, University of Wyoming students have requested a problems-based health law study aid to test their understanding of health law principles, and Professor Alexander's book provides one. Similarly, by satisfying nationwide market demand, the book should increase Professor Alexander's national reputation and that of the university, driving excellence. To disseminate this scholarship, Professor Alexander gave a presentation at the College of Law in January. She will also promote the book at the Health Law Professor's Conference in Philadelphia June 5-7th, 2024 and incorporate its problems into her Health Law, Public Health Law, and Bioethics courses.

In addition to her book, Professor Alexander has focused on two teaching projects that will benefit the state. She spent time developing a new Public Health Law course. The disruptions wrought by COVID-19 highlighted the need for a better understanding of public health law. Professor Alexander has selected readings from various viewpoints to help students explore the thorny constitutional law issues that permeate public health, and her course should ensure that more lawyers are available to advise the state and individuals. She also researched and designed four new generative artificial intelligence (AI) practice activities to help students learn to utilize large language models effectively. Each activity focuses on a different legal drafting exercise that exposes students to distinct uses of ChatGPT, illustrating the system's strengths and limitations for legal practice, as well as potential ethical issues. The Wyoming State Bar has selected Professor Alexander to present *Help and Hallucinations: Getting Started with Generative AI* at the annual bar convention in Cheyenne on September 12, 2024.

Finally, Professor Alexander taught graduate courses in Intellectual Property and Civil Procedure II and worked with graduate students on a new law review article. The article examines Colorado's first in the nation medication abortion "reversal" ban from a public policy and First Amendment perspective, considering difficult questions about the limits of regulating licensed health care providers. Professor Alexander will present *Pro-Choice/Con-*

Choice: Constitutional Considerations in Progesterone Politics at the Health Law Professor's Conference in Philadelphia on June 6, 2024.

Dr. Darrell Jackson, (Ph.D. Educational Foundations, University of Colorado) ***Winston S. Howard Distinguished Professor of Law.***

For Dr. Darrell D. Jackson, the Winston Howard Distinguished Professor of Law, the 2023-2024 academic year began with Dr. Jackson working alongside Dr. Nicole Crawford (ABD), the Director & Chief Curator of the University of Wyoming Art Museum, to further the international recognition of the Stealing Culture Project (The Project). As the University of Wyoming (UW) has previously publicized through the UW Magazine, UW's YouTube account, and other media, The Project seeks to highlight UW's commitment to interdisciplinary and interdepartmental research by combining the disciplines of law and museum studies. In so doing, The Project deeply interrogates the ways that laws have, can, and should influence how museums and collectors engage in obtaining, retaining, and displaying art and artifacts. The Project has presented and lectured in far too many locations to list in this short piece, but, in August and September 2024, The Project presented in Australia to the International Council of Museums – University Museums and Collections Committee (ICOM-UMAC). Dr. Jackson and Dr. Crawford recently co-authored an article that will be published by ICOM-UMAC in 2024. The Project continually works to strengthen UW's relationships with international organizations and academics. The result of this relationship work was deeply demonstrated when, summer before last, The Project took 12 students for a study abroad experience in Scotland, England, and Greece. One highlight from that trip was also publicized by UW when Alyson White Eagle SoundingSides was able to connect with personnel at the British Museum and became the first person in her tribe to see Northern Arapahoe Chief Yellowcalf's (her Great Grandfather) headdress in over 100 years.

Vacant, E. George Rudolph Distinguished Visiting Chair.

Dona Playton, (J.D. Law, University of Wyoming) ***Greg Dyekman Endowed Clinical Professor.***

Professor Dona Playton holds the esteemed Dyekman Professorship of Law at the University of Wyoming College of Law. Her educational background and professional trajectory have distinguished her as a formidable educator and advocate for civil justice legal reforms.

Her research activities currently focus on civil justice legal reform with a particular emphasis on supporting low-income families. Her work aims to find and implement alternative resolutions to the traditional, adversarial legal system, which often poses significant barriers to accessing justice. Through scholarship, teaching, and practical legal work, she strives to develop and promote innovative strategies and solutions that make the legal process more equitable and accessible for all individuals, especially those who are most vulnerable. Far too many people are denied legal assistance for crucial issues affecting their lives, including family, housing, employment, consumer, and public benefits matters. For many, the impacts of unresolved legal problems are frequently at the root of stress-related health issues, job losses, and relocations.

In instructional activities, her focus is on family law and alternative dispute resolution, guiding law students through both theoretical and practical applications of these areas.

As the director of the Family & Child Legal Advocacy Clinic, a legal services clinic at the law school Professor Playton created in 2002, her most recent research and engagement are a direct result of her recognition of the gap

in legal access and her efforts to explore and scale solutions to better meet the needs of the underserved. The Family & Child Legal Advocacy Clinic has been recognized by PreLaw Magazine as one of the top law school programs in family and child law. Through this clinic, students gain hands-on experience in advocating for families and children, furthering their understanding and skills in these critical areas of law. Dona shares her enthusiasm for court improvement and legal reforms with her students as well as the broader statewide and national legal community. According to the American Bar Association's Law School Education and Admissions Standards, law schools must offer substantial opportunities for students to develop a professional identity. This involves intentional exploration of values considered foundational to successful legal practice, helping students to understand and internalize the duties and responsibilities of being a lawyer. This standard is about more than just acquiring legal skills; it's about shaping law students into professionals who adhere to ethical standards and are aware of their role in society and the impact of their work. Professor Playton's efforts to integrate dispute resolution and technology into legal education, including the Family & Child Legal Advocacy Clinic she directs at the law school, reflect her commitment to preparing law students for an evolving legal marketplace and the importance of practical skills development. Professor Playton's dedication to modernizing legal education helps ensure that more graduates are academically proficient and prepared to contribute civilly and constructively to society's urgent needs. Her body of work benefits students by providing them with a curriculum that is both contemporary and socially impactful.

The cornerstone of Professor Playton's recent research and White Paper are the subject of a Wyoming Supreme Court's Access to Justice committee. The committee is actively considering the development of alternative legal pathways aimed at reducing harm to individuals and families navigating the civil legal system in state courts. Most recently, her interests and efforts have earned her invitations to serve on the American Association of Law Schools (AALS) ADR Clinic Committee, the editorial board of the Association of Family and Conciliation Courts (AFCC's) Family Court Review, and membership in the American Bar Association's Alternative Dispute Resolution Section. In addition, Dona represents the Wyoming State Bar in the American Bar Association's House of Delegates, and on the Wyoming State Bar's Board of Officers and Commissioners. She was also recently elected to the CLIMB Wyoming Board of Directors.

Professor Playton's holistic approach to legal education and advocacy encompasses a dedication to professional development, mentorship, and service. Her initiatives benefit her students and contribute significantly to the broader effort to remedy disparities in legal access.