



FROM THE DESK OF THE
Vice President for Research

June 2024

Summer has arrived (or at least the heat is here!) and I hope every Lobo takes the time to relax and rejuvenate over the next two months. You deserve it. While I try to take some of my own advice, I have a jam-packed summer that includes some tasks right here at home.

As most of you know we have 11 Category 3 research centers/institutes (RCIs) here at UNM, two were introduced within the last year, Accelerating Resilience Innovation in Drylands (ARID) and the Quantum New Mexico Institute (QNM-I).

ARID, a continuation of UNM's original Grand Challenges team on Sustainable Water, expands this focus to foster resilience innovations that sustain clean water, energy, ecosystems, and community health in drylands. QNM-I brings together various contributors across multiple sectors (academia, National Labs, Industry/Business and Communities/Government) to elevate New Mexico's presence as a leader in quantum science. Both centers will host public launch events this upcoming academic year. Stay tuned!

As our research portfolio expands with the addition of these two centers, it's essential that we establish policies, processes, and procedures to ensure our centers and institutes can be successful and productive contributors to UNM's research ecosystem, to enable equitable access to these collective resources, and to sustain productivity across our interdisciplinary programs and teams.

To that end, OVPR has been working with the Research Council, the Council of Deans, the Office of Academic Affairs, the Faculty Senate Research Policy Committee, and others to develop a range of guidelines and processes to help govern RCIs. This includes the establishment of formal affiliations between researchers and RCIs; a standardized schedule for F&A return, processes for establishing new RCIs; guiding principles for proposal submissions; and additional cross-center support to maintain consistency, accountability, and transparency in our operations. Finalizing these efforts is one of the OVPR's major tasks for the summer!



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June Safety Spotlight

Although spring is quickly turning into summer, now is a good time to think about “spring cleaning” in your research environment. Many environmental health and safety experts note the lack of basic housekeeping is the root cause of many accidents in research labs, art studios, and other spaces where researchers reside. In addition, the National Research Council recommends that housekeeping practices should be included in each laboratory’s written Chemical Hygiene Plan. There are some simple and easy things you can do to ensure your lab keeps its good housekeeping seal, regardless of the season. These include:

- Keep all work areas clear of clutter, trash, extraneous equipment, and other obstructions. Properly store items when not in use.
- Promptly and appropriately clean up spills, even if it’s only a few drops, and even if it’s “only water.”
- Store chemicals in appropriate cabinets (not in fume hoods, on lab benches, or on the floor), and keep all containers of chemicals closed when not in use.
- Keep areas around emergency equipment and devices (e.g. eyewashes, emergency showers, electrical panels, fire extinguishers, spill cleanup supplies, etc.) clean and free of obstructions.
- Ensure egress routes to exits are unobstructed and free of tripping hazards.
- Clean-up work areas at the end of an experiment and/or at the end of a day.

With these helpful tips, take some time today to look around your research space and see what you can do to promote good housekeeping practices to keep you and your fellow Lobo researchers safe!

Research Celebrations

CASAA Celebrates 35 Years

This year, UNM’s Center on Alcohol, Substance use and Addictions (CASAA) is celebrating 35 years since it was established in 1989. Although its history is one to marvel at, it’s just one part of this dedicated research conglomerate.

CASAA Director Katie Witkiewitz came to UNM in 2011 because CASAA was nationally and internationally known as the place to be for addiction research and treatment.

The research and scholarship happening today at CASAA is changing this field in hopes of helping more people who struggle with substance use, not only across New Mexico, but around the globe.

Read more here!

Undergrads Reclaim NASA MINDS Challenge National Championship

NASA loves generating [challenges](#) that utilize the ingenuity of industry experts, universities, and the public at large, to help advance space technology solutions.

The [NASA MINDS challenge](#) (NASA MUREP Innovative New Designs for Space) is in its fourth year, and seeks undergraduate teams to develop solutions for [NASA’s Artemis program](#), which will land the first woman and the next man on the Moon, create a long-term presence there, and prepare for a human mission to Mars.

The cross-college UNM CHILHOUSE team has competed in the senior category each year, winning the top spot in the first year and reclaiming the national championship this year by developing solutions needed for "[Autonomous Plant Monitoring & Cultivation for the Lunar Gateway](#)."

Earning first place in the senior category comes with a \$5,000 prize and a 3-day VIP trip behind-the-scenes tour of research at the Kennedy Space Center (KSC) and free admission to the KSC Visitor Complex in Cape Canaveral, Florida. Go Lobos!

Research Professor Wins Prestigious Award

A big win for Charles 'Chip' Shearer, a senior research scientist for the Institute of Meteoritics, as well as one of the lead conveners of our Sustainable Space Research Grand Challenges Team.

Shearer was awarded the 2024 G.K. Gilbert Award; the annual award recognizes people for their work in the planetary geology field. Congratulations, Chip!

Research News

FRESSH Wrap

The University of New Mexico wrapped up its 2023-2024 cohort of the Fostering Research Expansion in the Social Sciences and Humanities (FRESSH) program last month with 21 faculty from 18 different departments across campus.

Faculty attended semi-monthly workshops organized by the UNM [Faculty Research Development Office \(FRDO\)](#), to enhance grantsmanship skills, learn more about UNM research processes and resources, and build an interdisciplinary community of practice around social sciences and humanities at UNM. Midway through the academic year, participants pitched their grant ideas to their peers for feedback, as a goal of the program is that every participant submit a proposal for extramural funding. As of today, eight participants from this year's cohort have already submitted extramural grant proposals. During the pilot cohort last year, 13 researchers submitted proposals and five of them were awarded, totaling more than \$1.7 million in external funding.

FRESSH is now an integral part of our [WeR1 Faculty Success Program](#), which was established in 2021 and has supported hundreds of faculty project and invested nearly \$3M (and counting) in the innovation and creativity of UNM's faculty.

Summary Salary Guide

A second reminder that our 2024 Summer Research Faculty Guidelines have been posted on the Office for Academic Personnel website.

Please review and submit any questions to OAP.

Fringe Memo

Every year, the OVPR makes updates to Fringe benefits for research proposals.

Please see our latest updates for FY25.

Research Recipe!



Science behind sunscreen! Being a chemist, I wanted to share with you a little of the chemistry behind something all of us should be using every time we step outside.

Here are some fun chemical facts about sunscreens. There are two kinds of UV rays that people need protection from in the sun – UVA and UVB, each covering two different wavelength ranges. UVA (longer wavelengths) can penetrate deeper and represent nearly 90 percent of the UV rays that reach the earth's surface. The remaining 10 percent are UVB (shorter wavelengths, affecting the outer layers of skin). Sunscreens contain “active ingredients” that either reflect or absorb the UVA and UVB rays to protect our skin.

There are currently 16 FDA approved, sun-filtering ingredients, although only about 8 are regularly used in the U.S. With mineral sunscreens (zinc oxide, tin dioxide), nearly 95 percent of the UV rays are absorbed and then released as heat and nearly five percent are reflected, causing these sunscreens to appear white (picture the stereotypical beach lifeguard's nose).

Fun fact! In the past few years, chemists have discovered why some sunscreens damage coral reefs. In a nutshell, organisms in the coral family metabolize or convert oxybenzone (and similar organic compounds used in ~11 percent of sunscreens) into phototoxins that can absorb light but have no mechanism for dissipating it as heat – ultimately causing damage to cells or tissues. If you're visiting an ocean or sea this summer, be sure to use coral-safe or reef-friendly sunscreens!