

Academic Dispatch

October 25, 2019

A place of discovery and creation

UNM is not only a place of education, it is also a center of discovery and creation. This research mission is core to who we are, and critical to creating the special kind of learning environment that will produce leaders, innovators, and change agents for the future of our communities and families.

Out of the more than 5,300 U.S. colleges and universities, UNM is one of only 131 institutions designated as R1 or “very high research activity” by the Carnegie Foundation. UNM brings in over \$300 million each year in research funding from out-of-state sources, and that funding supports a wide array of important, groundbreaking projects. In 2018, [UNM research highlights](#) included greater understanding of the causes of mass extinctions, the progression of Alzheimer’s disease, the geochronology of the Grand Canyon, and the formation of our solar system, among many other advances.



Researchers gather rock samples. Geochemical evidence in marine limestone indicates that ocean anoxia was coincident with mass extinction. Communication and Marketing.

In September, the Theoretical Nanophotonics Group in the Department of Physics and Astronomy [published a paper](#) in a premier nanotechnology journal, “ACS Nano,” on recent insights gained into interaction of nanostructure arrays with light. Assistant Professor Alejandro Manjavacas, who is leading the team, described the advancement as a potential “game changer for technologies like ultrasensitive biosensing.” This month Meeko Oishi, associate professor in the Department of Electrical and Computer Engineering, launched a [\\$5.5 million NSF project](#) focused on making autonomous technologies, such as drones and self-driving cars, more responsive to the individual humans using them.

UNM is committed to research projects that impact our local communities. Through the Species in Peril collaborative art project UNM is helping to bring light to the loss of species along the great river that centers our state. UNM launched three [Grand Challenges](#) this spring focused on sustainable water resources, successful aging, and substance use disorders, all challenges that face the communities of New Mexico. Faculty interested in transforming undergraduate education and engaging with the UNM Grand Challenges are invited to apply to become a General Education Faculty Fellow by Friday, Nov. 8. For more information, contact Dachary Vann (dachstar@unm.edu).

An explorer and creator: Vice President Gabriel Lopez to return to research

Our faculty and students are the creative forces behind the discovery of new knowledge and production of new cultural works. This work has been facilitated by the outstanding service of Vice President for Research, and Professor, Gabriel Lopez. Professor Lopez oversees a crack staff of administrators and researchers in the Office of the Vice President for Research and in several key research facilities across UNM. Since assuming the role of Vice President for Research in 2016, Professor Lopez has overseen the development of a research strategic plan, improved key services to support the research enterprise, and helped UNM develop new relationships with government, federal laboratories, the UNM Foundation, and with STC.UNM. Under his leadership we have brought together colleagues from across campus to coordinate information and processes for the research enterprise, to support undergraduate research initiatives, develop research facilities, and increase collaboration with industry partners. Vice President Lopez has pursued these initiatives while simultaneously navigating difficult and constrained budgets.



Vice President for Research
Gabriel Lopez. Communication
and Marketing.

The capstone of Vice President Lopez's work has been the UNM Grand Challenges Program. I must note that this program, even still in its infancy, has already created greater impact than better resourced initiatives at other universities. This initiative has engaged and coordinated researchers from across UNM, including the HSC and our Branch Campuses. By emphasizing the importance of research to solving New Mexico's pressing societal problems, this initiative has, for the first time in recent memory, resulted in significant new investment in our research infrastructure from new resources. We owe Vice President Gabriel Lopez much for his dedicated service.

As an accomplished researcher, Professor Lopez has published over 200 papers and is inventor on 42 U.S. patents. In 2016 he was named a Fellow of the National Academy of Inventors. He has mentored over 170 students and postdocs, and 17 of his former students went on to academic positions themselves. He truly is an accomplished and prolific researcher.

Professor Lopez will remain as Vice President for Research through the end of 2020, so we will have the benefit of his skilled leadership for quite a while longer. But after five years of serving the university in this role, he sees new opportunities in returning to the creative and exciting work of hands-on research that makes UNM the special place it is!

Dr. James Paul Holloway

Provost & Executive Vice President for Academic Affairs
Professor of Nuclear Engineering

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