

THE UNIVERSITY OF NEW MEXICO HEALTH SCIENCES

Discovery

Research Annual Report 2021

Building New Science Together



TURNING RESEARCH INTO CURES

UNM Health Sciences
Research Annual Report 2021

Managing Editor
Michael Haederle

Art Director
Sara Mota

Design
Jana Fothergill

Contributing Editors
Cindy Foster
Rebecca Roybal Jones
Michele Sequeira

Photography
Seth Fuller
iStock by Dreamstime

UNM HEALTH SCIENCES

VISION

The University of New Mexico Health Sciences will work with community partners to help New Mexico make more progress in health and health equity than any other state.

MISSION

We will provide an opportunity for New Mexicans to obtain an excellent education in health sciences, advance health discovery and innovation in the most important areas of human health and ensure that all populations in New Mexico have access to the highest-quality health care.

CORE VALUES

The UNM Health Sciences mission is guided by our values of excellence in education, patient care and research, commitment to service, quality and safety, integrity and accountability, respect and compassion for all people, teamwork and collaboration – and providing hope for those we serve.

©2021 The University of New Mexico
Health Sciences
Office of Research

Published by the HSC
Communications Department

Special thanks to Aida Andujo,
Jade Knight, James MacFarlane
and Cassandra Misenaar
for their assistance

Printed by Starline Printing,
Albuquerque, N.M.

See inside back cover for
information on donating to
bioscience research at
The University of New Mexico.

Contact
voice 505-272-6950
fax 505-272-8738
hsc.unm.edu/research



CONTENTS

LETTERS

Douglas Ziedonis, MD, MPH Executive Vice President, Health Sciences CEO, UNM Health System	2
Richard S. Larson, MD, PhD Vice President for Research	3
Michael E. Richards, MD, MPA Interim Dean, School of Medicine	4
Christine Kasper, PhD, RN Dean, College of Nursing	5
Donald Godwin, PhD Dean, College of Pharmacy	6
Tracie Collins, MD, MPH Dean, College of Population Health	7

FEATURES

UNM Health Sciences Research Centers and Institutes	8
Solving Pandemic Puzzles <i>HSC Researchers Take on Thorny COVID-19 Scientific Questions</i> By Michael Haederle	9
Collaborative Culture <i>Distinguished Professor Nina Wallerstein Has Made Participatory Research Her Life's Work</i> By Rebecca Roybal Jones	12
Relevant Research <i>Southwest Clinical Trials Network Brings Opioid Dependence Treatments to New Mexico</i> By Cindy Foster	14
Knowledge Multiplier <i>Project ECHO Extends Health Care Expertise Around the World</i>	15
Elemental Research <i>UNM Center for Metals in Biology in Medicine Aims to Shed Light on Complex Interactions</i> By Michael Haederle	16
Seeing the Big Picture <i>UNM College of Nursing Studies Focus on Patients, Their Families & Their Communities</i> By Cindy Foster	17
Stepping Up <i>Alan Tomkinson Takes on Leadership Role at the UNM Comprehensive Cancer Center</i> By Rebecca Roybal Jones	18
Far-Reaching Research <i>Scientist Eric Prossnitz Detects Hidden Connection Among Common Diseases</i> By Michele W. Sequeira	20
Room for Growth <i>Cross-Campus Connections Pave the Way for Enhanced Research Partnerships</i>	22
2021 HSC Training Grants	24
2021 Excellence in Research Awards	28
2021 HSC Grant Listings	31
Information for Donors	Inside Back Cover



DOUGLAS ZIEDONIS, MD, MPH

Executive Vice President, UNM Health Sciences CEO, UNM Health System

Many thanks and congratulations to all the research team leaders, faculty, students, staff and community leaders who have worked together to ask great research questions and uncovered important discoveries. This issue of DISCOVERY will showcase so many amazing projects that are making a difference here in New Mexico and beyond. We have had another terrific year of research innovation and discovery at UNM Health & Health Sciences!!

Research, scholarship and innovation support our collective journey to help enhance the health and health equity for all New Mexicans. We are better understanding critical community, clinical and basic science questions, developing and evaluating new interventions, and studying the dissemination and implementation of evidence-based treatments into new settings or populations.

The research shared in this report is world-class and reflects the range of investigators and research teams in our centers, institutes and programs. In spite of COVID, we continue to make incredible new discoveries and innovations, and translate them to solving real-world problems. We have contributed to better understanding and addressing the COVID-19 epidemic with more than 300 research studies.

We are national leaders on improving health equity, engaging the community in their concerns about vaccines and other COVID-related matters, and training and evaluating the impact on hundreds of thousands working in thousands of nursing homes across the nation (Project ECHO). Thank you.

Research is vital to our work as an academic health center. The search

for cures, better ways to support healing and enhancements of our treatments helps our primary mission to health, well-being and health equity. We are working as teams and developing the next generation of health care workers and scientists in interdisciplinary training.

Our research is also attracting substantial extramural funding that benefits our state's economy through increased jobs in the short run and also new startup companies and patents for the longer-term success of New Mexico.

We have attracted some phenomenal research talent to our campus, and it's reassuring to know that we have built the necessary infrastructure to enable our scientists to do their best work – examples include the Clinical & Translational Science Center, the Comprehensive Cancer Center, the three COBRES, our Signature Programs and Project ECHO.

We have forged fruitful partnerships with colleagues from across the UNM campus, leveraging their respective domains of expertise. Some examples include groundbreaking work being done by the TREE Center, headed by Dr. Lisa Cacari-Stone, and Dr. Johnnye Lewis's METALS project.

Our scope also extends outside the university. We are actively exploring collaborations with our friends at Los Alamos National Laboratory, Sandia National Laboratories, Santa Fe Institute, New Mexico Tech and New Mexico State University to take better advantage of the state's rich intellectual resources.

Thanks for all you do. I'm looking forward to seeing what comes next! ■

This year, The University of New Mexico Health Sciences Center research enterprise once again surpassed itself, with a record \$212 million in extramural funding for FY 2021.

If we add in a one-time infusion of \$237 million in support for Project ECHO's collaboration with the Agency for Healthcare Research & Quality to disseminate COVID safety practices at 15,000 U.S. nursing homes, we reach an astounding total of \$449 million.

Whichever math you use, it is clear HSC research has been on a steady upward trajectory for well over a decade, bringing impressive new medical and health care breakthroughs to the university and providing an invaluable economic boost in our community (see the graph on Page 30).

This achievement is especially impressive given the precautions that were put into place across campus to limit the spread of SARS-CoV-2 infections. Fortunately, biomedical research was deemed an essential activity, so we were able to keep our laboratories up and running, which in turn enabled us to make a significant contribution to COVID-related research.

Over the course of FY 2021 the HSC conducted a total of 137 COVID-related studies, including 24 clinical trials. The UNM Clinical & Translational Science Center

oversaw 23 of those studies, including 15 clinical trials. I'm especially proud of our participation in a high-profile national trial of the Moderna vaccine in children and a large NIH-funded study of patients experiencing "Long COVID" symptoms.

Other highlights from the past year include the National Cancer Institute's renewal of elite comprehensive status for the UNM Comprehensive Cancer Center, recognizing it as one of the 51 leading cancer centers in the nation – and the only such cancer center in New Mexico. Comprehensive designation requires an intensive federal re-certification and designation process every five years.

And in January we will break ground on the new research wing at Domenici Hall, dubbed the Interdisciplinary Substance Use and Brain Injury Center. The 16,000-square-foot facility will include state-of-the-art laboratories and clinical research testing spaces, supporting both our substance abuse and brain injury research.

These highlights – and many more – are a tribute to the persistence, creativity and hard work of our faculty, staff and students. You are the heart and soul of our research efforts. I hope you share my pride in our accomplishments and my optimism about what we will achieve together in the future. ■



RICHARD S. LARSON, MD, PHD

Vice President for Research, Health Sciences



MICHAEL E. RICHARDS, MD, MPA

Interim Dean School of Medicine

The COVID-19 pandemic has affected every facet of our lives, and challenges us in ways most of us have never experienced. Since becoming interim dean of the School of Medicine in July, I have been impressed with our researchers' efforts to develop vaccines, find effective therapeutics and devise sterilization methods to preserve personal protective equipment.

The Department of Neurosciences, led by Bill Shuttleworth, PhD, has been continually funded for its Center for Brain Recovery and Repair and the New Mexico Alcohol Research Center, as well as a National Institutes of Health training grant. The department ranks 17th nationally in NIH neurosciences research funding.

The Research Education Office has fostered undergraduate, pre-doctoral and post-doctoral biomedical training and career development. Congratulations to senior associate dean Tom Resta, PhD, and his team for overcoming the many challenges imposed by the ongoing pandemic.

Jennifer Gillette, PhD, associate professor in the Department of Pathology, helped transform the Undergraduate Pipeline Network into a completely remote experience, including a virtual symposium that highlighted some of the nation's most promising student researchers.

Laura Gonzalez Bosc, PhD, professor of Cell Biology & Physiology, assumed leadership of the Biomedical Sciences Graduate Program and led efforts to adapt to pandemic restrictions and integrate anti-racism education into the curriculum.

Justin Baca, MD, PhD, associate professor of Emergency Medicine, has been named director of the MD/PhD degree program. I'm excited by the prospects for continued growth of this program under his leadership.

I'd also like to acknowledge our NIH-funded training programs in alcohol research, infectious disease and inflammation, cardiovascular disease and academic science education and research. These programs have greatly enhanced research education for our trainees.

Finally, recognition is due to Angela Wandinger-Ness, PhD, professor in the Department of Pathology, who was honored with the 2020 Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring. She also received the 2020 American Association for the Advancement of Science Lifetime Mentor Award. We are fortunate to have her as a member of our faculty.

Thanks to everyone who has made these research programs a success. They are central to our institution's mission and promise to enhance the health and well-being of New Mexicans. ■

Our research has direct impact on the communities the College of Nursing serves, from improving mental health services for adolescents to enhancing the resiliency of the military nurses caring for veterans and service members.

The College of Nursing has five areas of emerging research: women's and children's health, military, disasters and public health, big data and environmental toxicology.

Nurses, including our Lobo nurse researchers, continue to be on the front line of the COVID-19 pandemic. We're working to understand the stress the pandemic brought upon nurses so that organizations such as schools and hospitals can better support nurses when the next public health emergency strikes.

We're working to understand how to improve the resiliency of military nurses, to protect their health and ensure that they can continue to serve service members.

We're turning large data sets into health outcomes. We partnered with Sandia National Laboratories to model the impact of COVID-19

outbreaks on hospital surge capacities, and we used machine learning to better understand health care needs for children with disabilities as they become adults.

Our studies focus on understanding how to give our families and our children the best futures. We're working to determine how synthetic oxytocin, a medication used in labor, can later impact a mother's lactation. And our ADOBE Portal pilot project in Albuquerque is working to better serve high-risk youth by providing mental and physical health care for children and their families, while also serving social needs, such as school enrollment.

We're finding outcomes that can directly benefit Native tribal communities harmed by abandoned and poorly remediated uranium mines, as we study how heavy metals and toxic substances affect body functions. These outcomes can inform intervention strategies and improve the health of these communities.

The outcomes of our nurse researchers and partners will have a meaningful impact on the health of New Mexicans for years to come. ■



CHRISTINE KASPER, PHD, RN

Dean College of Nursing



DONALD GODWIN, PHD

Dean College of Pharmacy

Despite a worldwide pandemic that impacted every member of the College of Pharmacy, we had our most successful research funding ever in 2021, with more than \$14 million in grant awards from a variety of state and federal sources.

Blue Ridge Institute for Medical Research ranked the College No. 6 among 141 U.S. pharmacy programs for National Institutes of Health research dollars. Our research activities span the translational research spectrum, from bench to bedside to community.

Even more important than extramural funding is the impact that our research makes on the most vulnerable populations in New Mexico.

Our research has explored the impact of increased pandemic-related stress across minority communities already affected by historical trauma, as well as the effect of the COVID-19 pandemic on psychosocial outcomes, alcohol use and stress-related physical outcomes in pregnant and postpartum women.

Our long history of environmental health research continued, with longstanding partnerships with Indigenous communities to study the health implications of exposure to wastes from abandoned mines,

combined with microplastic and other plastic degradation products.

The College also continued to focus on adverse health outcomes from exposure to metal contaminants across the Southwest, as well as on harnessing the chemical properties of metals for therapeutic and nutritional purposes.

The College's Substance Use Research & Education Center continues its remarkable work involving the use and misuse of alcohol and prescription and nonprescription drugs, with a focus on prenatal alcohol exposure, epigenetic studies and distribution of naloxone to reduce opioid overdose deaths.

Our clinical research is improving patient care for HIV, hepatitis C, tuberculosis, atrial fibrillation and hypertension. These discoveries help expand the scope of practice of pharmacists in New Mexico and the U.S., leading to better health care and patient outcomes.

It is my honor and privilege to lead the College in our never-ending quest for discovery. For more than 75 years, our faculty, staff and students have worked to make the next great breakthrough that leads to better health care both for individuals and communities. ■

Let us embrace Fall 2021! In our second autumn with the COVID-19 pandemic, we are in a much better place this year, thanks to the availability of effective vaccines and a return to in-person learning.

The College of Population Health continues to add faculty and students. Joining us this year is Laura Tomedi, who holds a PhD in epidemiology from the University of Pittsburgh and a master of public health degree from UNM. Her areas of specialty include substance use and health inequities. We are fortunate to have her join our faculty.

This semester we have enrolled 111 undergraduate and 90 graduate students – both increased numbers from last year. We are planning a joint PhD program in Health Equity Sciences with New Mexico State University and hope to launch in Fall 2022.

Our students and alumni continue to shine. MPH student Alin Y. Badillo-Carrillo published a commentary, “Destigmatizing LatinX Mental Health,” in the Public Health Post. MPH candidate Daisy Rosero presented “The Impact of COVID-19 on U.S. Organic Farmers” at the 2021 American Public Health Association meeting. Justin Garoutte, an MPH alum, worked

with the New Mexico governor's office to plan and launch a COVID-19 wastewater surveillance system.

Our researchers continue to thrive. Drs. Lisa Cacari-Stone, Nina Wallerstein and Tassy Parker received a \$1.4 million National Institutes of Health-funded grant titled, “New Mexico-Wide Engagement for Assessing COVID-19 Vaccine Equity.” Congratulations to the entire team.

What is next for the College? We are partnering with the New Mexico Department of Health and NMSU to establish an Academic Health Department (AHD) to provide field experiences for students, teaching opportunities for DOH staff and stronger research collaborations.

AHDs resemble the relationship between teaching hospitals and academic units – hands-on experience coupled with didactics. We are also creating a Health Policy Center to provide data analytics and policy to support quality of care for New Mexico Medicaid recipients.

Under the leadership of Dr. Douglas Ziedonis, Executive Vice President for Health Sciences, we are planning a second PhD program, as well as significant growth of faculty members this year.

It is good to be back, and I am excited to continue to grow the College of Population Health. ■



TRACIE COLLINS, MD, MPH

Dean College of Population Health

University of New Mexico Health Sciences research centers and institutes play a prominent role in many critical national networks. We thank the directors, faculty, staff and students who enrich the work of these groups. These entities have a range of research cores and shared facilities.

Here's an overview:

Designated Research Centers, Institutes & Networks

- UNM Comprehensive Cancer Center (P30CA118100, Tomkinson)
- Center for Infectious Disease & Immunity (Byrd)

Extramurally Funded Centers & Institutes

- Autophagy, Inflammation & Metabolism Center (NIH/COBRE) (P20GM121176, Deretic)
- Center for Brain Recovery & Repair (NIH/COBRE) (P20GM109089, Shuttleworth)
- New Mexico Alcohol Research Center (P50 AA022534, Savage)
- Transdisciplinary Research, Engagement & Equity Center for Advancing Behavioral Health (U54MD004811, Cacari Stone).
- Center for Metals in Biology & Medicine (NIH/COBRE) (P20GM120422, Campen)
- Center for Native American Environmental Health Equity Research (P50MD015706, Lewis, MacKenzie).
- Metal Exposure Toxicity Assessment on Tribal Lands in the Southwest Superfund Research Center (P42 ES025589, Lewis)
- New Mexico Exploratory Alzheimer's Disease Research Center (P20 AG068077, Rosenberg)
- for Development & Disability (Administration on Intellectual and Developmental Disabilities, Moriarta).

Other Centers, Institutes & Networks

- Center on Aging (Herman)
- Center for Disaster Medicine (Banks)
- Institute for Ethics (Bolton)
- Center for Forensic Imaging (Adolphi)
- Center for Global Health (Perkins)
- Center for HPV Prevention (Wheeler)
- Memory & Aging Center (Rosenberg)
- Center for Molecular Discovery (Wandinger-Ness)
- Center for Native American Health (Parker)
- Institute for Resilience, Health & Justice (Hsi)
- Center for Health Equity & Preparedness (Couig)
- Center for Healthcare Equity in Kidney Disease (Myaskovsky)
- Center for Participatory Research (Wallerstein)
- Center of Excellence for Orthopedic Surgery & Rehabilitation (Schenck)
- Substance Use Research & Education Center (Bakhireva)
- Diabetes Prevention & Outcomes Center (Schade)
- Research Center (Davis)
- Epidemiology and Prevention Interdisciplinary Center for Sexually Transmitted Infections (Wheeler)
- Illuminating the Druggable Genome Knowledge Management Center (Oprea, Lambert)
- Center for Innovation in Health & Education (Frank)

Signature Research Programs

- Brain & Behavioral Health Institute (Bakhireva & Bhaskar)
- Cardiovascular & Metabolic Disease (Buranda, Campen, Gonzalez-Bosc, Kanagy, Liu)
- Infectious Diseases & Immunity (Byrd)
- Child Health Research (Watterberg)
- Environmental Health Sciences (Gonzalez)

Solving Pandemic Puzzles

HSC Researchers Take on Thorny COVID-19 Scientific Questions

By Michael Haederle

Throughout 2021 The University of New Mexico Health Sciences Center drew on its strengths as an academic health center to launch more than 137 studies – including 24 clinical trials – related to the COVID-19 pandemic.

The work spanned the spectrum, from characterizing emerging genomic variations in the virus and evaluating COVID safety protocols in clinical settings to computational analyses of existing drugs for potential antiviral therapeutics.

Two studies in particular stood out for their impact on the wider community: a national trial of the Moderna vaccine in children 12 and under and a National Institutes of Health-funded study of patients with lingering “Long COVID” symptoms the Researching COVID to Enhance Recovery (RECOVER) Initiative.

The projects, coordinated through the UNM Clinical & Translational Science Center (CTSC), drew on the HSC’s demonstrated ability to enroll a diverse patient cohort, including Hispanic and American Indian participants, said Hengameh Raissy, PharmD, interim vice president for Health Sciences Research and vice

“Minorities have historically been under-represented in clinical research trials . . . Our goal is to include diversity in the study populations in order to have generalizability of research to the population.”

Hengameh Raissy

chair for research in the Department of Pediatrics, who serves a co-principal investigator for RECOVER and leads the CTSC’s Network Capacity.

“Minorities have historically been underrepresented in clinical research trials,” Raissy said. “Our goal is to enroll to include diversity in the study populations in order to have generalizability of research to the population.”

The Moderna vaccine KidCOVE trial started by enrolling 65 New Mexico children ages 6 through 12, said Walter Dehority, MD, MSc, an infectious disease specialist and associate professor in the UNM Department of Pediatrics who serves as principal investigator for the study.

Vaccinating children “has huge implications for the opening of schools,” he says. “A lot of teachers



HENGAMEH RAISSY, PHARMD



“Why have New Mexican kids in the ICU with COVID-related disease every day if we could prevent that?”

WALTER DEHORITY, MD, MSC



“We’re trying to ascertain who develops PASC, and if we do, are there treatments that actually mitigate it at the beginning or help with their symptoms later.”

MICHELLE HARKINS, MD

might not feel comfortable going back to in-person learning, but they might if they knew the children they were teaching were immunized. The same would apply to other youth activities, such as sports."

Dehority points out that even if the most severe impact of the disease is seen in adults, some children do become seriously ill.

"During the COVID epidemic we've had four or five kids in the hospital at a given time, and they're often in the intensive care unit," he says. "Why have New Mexican kids in the ICU with COVID-related disease every day if we could prevent that?"

Additionally, having children vaccinated will also make adult family members who might be at risk for COVID (such as grandparents) more comfortable and safer when they are around the youngsters.

UNM is one of dozens of sites around the country participating in the KidCOVE study, which aims to enroll close to 7,000 children and follow them for about 14 months, Dehority said.

In the randomized, double-blind controlled study, children receive either a placebo or the first dose of the Moderna mRNA-1273 vaccine when they enroll, then return about a month later for the second shot, he said.

Parents and children are asked to return to the UNM CTSC clinic for follow-up testing in subsequent months, and there will be at least

two visits with the research team after each injection.

The next two phases of the trial, which are expected to start later in the fall, include children ages 6 months to 5 years old.

Additional co-investigators on the study include Raissy and fellow Pediatrics faculty members Chandler Todd, MD, and Matthew Kadish, MD.

Starting in spring 2021, NIH invited academic health centers to develop protocols for the RECOVER study, which hopes to enroll 8,000 to 10,000 patients at institutions around the country to study Long COVID.

The UNM Health Sciences Center expects to enroll 200 adults and 200 children, including people already experiencing symptoms and those newly diagnosed with COVID-19, Raissy said.

According to NIH, symptoms of Long COVID – formally known as post-acute sequelae SARS-CoV-2 infection (PASC) – may include ongoing fatigue, shortness of breath, "brain fog," sleep disorders, fevers, gastrointestinal symptoms, anxiety and depression. Symptoms can persist for months, ranging from mild to incapacitating. In some cases, new symptoms arise well after the time of infection or evolve over time.

The studies seek better understanding of how many people continue to have COVID-19 symptoms (or develop new symptoms) and what the underlying biological causes might be. This could provide insight into what makes some people vulnerable to these symptoms

– and whether they increase the risk for other conditions, such as chronic heart or brain disorders.

"We'll be enrolling acutely ill patients and patients that have recovered with Long COVID," said Michelle Harkins, MD, professor of Internal Medicine and co-principal investigator on the adult study. "We're trying to ascertain who develops PASC, and if we do, are there treatments that actually mitigate it at the beginning or help with their symptoms later."

The studies will include a close review of medical records, as well as extensive diagnostic screening, such as blood tests and CT and MRI scans, to gather as much information as possible about each patient and their symptoms.

"This is a huge collaboration between the Clinical & Translational Science Center, which applied for the study, UNM Hospital and the Departments of Pediatrics, Internal Medicine, Neurology, Emergency Medicine and Psychiatry & Behavioral Sciences," Raissy said.

Other investigators for the adult study include Alisha Parada, MD, associate professor in Internal Medicine, Davin Quinn, MD, associate professor in Psychiatry & Behavioral Sciences and Elyce Sheehan.

Walter Dehority is co-principal investigator on the pediatric arm, with additional investigators Matthew Kadish and Jerry Larrabee, MD, MEd, professor of Pediatrics. ■



Collaborative Culture

By Rebecca Roybal Jones

Nina Wallerstein, DrPH, distinguished professor in the University of New Mexico College of Population Health (COPH), has built a career on researching interventions in communities to promote improved health outcomes.

Her devotion to participatory research emphasizes shared leadership within communities to determine culture-centered interventions specifically tailored for the particular community.

As the director of the Center for Participatory Research, Wallerstein has engaged with Jemez Pueblo, the Navajo Nation and the Mescalero Apache community. Wallerstein has also worked elsewhere in the United States, and internationally – especially in Brazil.

Over the years, she has been awarded more than \$25 million in funding for her research.

Most recently, her life's work has earned her the title of distinguished professor, the highest title that UNM

bestows upon its faculty. It's awarded to individuals who have demonstrated outstanding achievements, and are nationally and internationally renowned as scholars.

"It's definitely an honor, and definitely I'm humbled by the respect," Wallerstein says. "I should say I've been constantly realizing how much I keep learning, even now as a distinguished professor. It's never over. This is a good thing to know."

Wallerstein served as interim dean of the COPH during much of 2021 while Dean Tracie Collins, MD, MPH, temporarily headed the New Mexico Department of Health during the COVID-19 pandemic and she's looking forward to getting back to research.

One project she's working on, along with two other principal investigators, has been awarded \$1.4 million in federal funding to explore why so many New Mexicans are hesitant to receive COVID-19 vaccinations.

The one-year Community Engagement Alliance Against COVID-19 Disparities grant from the National Institutes of Health is part of a national effort to understand and overcome the barriers that keep people from getting vaccinated in hopes of stopping the coronavirus pandemic.

The UNM study, dubbed Wide Engagement for Assessing COVID-19 Vaccination Equity, will build a consortium of more than 200 partner organizations to engage with communities around the state.

Another proposal could make a difference beyond New Mexico.

Wallerstein and Richard S. Larson, MD, PhD, Vice President for Research, Health Sciences, have submitted a new grant proposal to the National Center of Advancement of Translational Science to work with clinical and translational science centers from other universities to learn together how to strengthen academic institutions to

Distinguished Professor Nina Wallerstein Has Made Participatory Research Her Life's Work

"My goal has been to identify real distinctions between what is the best and most promising practice of engagement . . ."

Nina Wallerstein, DrPH

better support community engaged research, she says.

Wallerstein joined the UNM faculty in 1989, and helped develop the master of public health degree at the university, which then grew into a public health program and is now a key part of UNM's College of Population Health.

Over the years, she's earned numerous grants from the National Institutes of Health to explore the added value of participatory approaches to research and health equity outcomes. She's also the principal investigator for Engage for Equity, a National Institute of Nursing Research-funded project with national partners.

"We call this whole big trajectory the Engage for Equity study," Wallerstein says, describing it as an inquiry into what engagement adds to health equity outcomes

and identifying metrics-promising practices.

"My goal has been to identify real distinctions between what is the best and most promising practice of engagement, rather than 'anything goes,'" she explains. "You can call all kinds of things community engagement, but not everything is evidence-based, not everything is successful, and there's lots and lots of engagement that is really simply unilateral outreach that's just done to people."

She adds, "I've gone out of my way in my career to try and establish the evidence of what authentic partnering is, that it's really built on an equity agenda."

That means that rather than the university or a professor calling all the shots, every aspect of the research is a true partnership – from resources and funding to



decision-making and methodology, Wallerstein says.

"I've learned from tribes that this is the way all research should be done," she says. "We should always be looking at community benefit."

Collaborating with researchers from communities of color is just as important as the methodology used in the research, Wallerstein says.

"If we're really going to address racial healing and racial equity, then that academic team also has to represent that," she says. "My partnering is – as in my team – as much an important part of my research as the actual methodology I use, and intervention research to create health outcomes." ■

Relevant Research

Southwest Clinical Trials Network Brings Opioid Dependence Treatments to New Mexico

By Cindy Foster

Opioid dependence is a complex, devastating condition that can impact everyone, from the young to the very old. It should come as no surprise that treatments have to be varied in order to be effective.

The University of New Mexico's participation as a node within the Southwest Clinical Trials Network (SW-CTN) – now in its third year of funding by the National Institute on Drug Abuse – is providing the state with the opportunity to participate in cutting-edge national studies and treatments focused on the opioid epidemic, according to Kimberly Page, PhD, professor in the Division of Epidemiology, Biostatistics & Preventive Medicine in the UNM School of Medicine.

Through the SW-CTN node, professionals and the public can readily access resources and information, she says.

"Each clinical trial has its own site, so the node is an important factor in building research across the campus, while providing a great opportunity to participate while our clinicians and scientists get to learn all the intricacies of multi-site research," Page says.

"Here on the Health Sciences campus, we are working with clinicians who are new to clinical research across multiple departments, including Psychiatry, the Emergency Department, Family Medicine and Internal Medicine," she says.

Interdisciplinary cooperation is key to success, and researchers routinely

cross Lomas to interact with professionals on UNM's Main Campus, as well as other health professionals in communities across the state.

Some very effective medical interventions have arrived on the scene in recent years as the opioid epidemic has evolved, she says.

Several trials are analyzing medication interventions for opioid use disorder. They include investigating the effectiveness of both short- and long-term medical dosages, Page says.

"That focus is a really important reason why the Health Sciences campus is leading this," she says. "We know that different populations may respond differently to these interventions."

For instance, researchers in the UNM Hospital Emergency Department are looking at the effectiveness of a long-acting injection versus a sublingual pill for weaning patients off opioid use. A separate trial is working with pregnant women to evaluate the effectiveness of a long-acting versus daily medication: two different research groups with different needs.

"It helps people to stay in compliance when they don't have to take a medication every day," Page says. "Many people drop out of treatment care early and that puts them at great risk of overdose and other negative health consequences. Keeping people engaged in care is a very high priority for some of our research."



KIMBERLY PAGE, PHD

While UNM conducts substantial medication-based research, it pursues other types of research as well, she says.

No matter the group – from pregnant women to seniors to rural workers – investigators realize each situation is complex, and there probably not will be a "one size fits all" regimen. For that reason, clinical research often begins with talking directly to stakeholders and getting ideas directly from communities. It is also important to research the impacts cultural issues can have on care, she says.

"What we are doing is looking at what tools we can add to our toolbox," Page says. Sometimes that might mean new medicines, sometimes it can be something behavioral. We constantly are asking, 'How can a treatment be best implemented, and with what populations is it of great importance to use?'"

As knowledge increases in the field, new areas for study are also beginning to appear on the horizon.

"Research into reducing stigma as a barrier to successfully treating opioid abuse is of great importance, and we hope to be leading the way with this," she says. ■

Knowledge Multiplier

UNM's Project ECHO Extends Health Care Expertise Around the World

Project ECHO, The University of New Mexico's signature tele-mentoring initiative, has built an impressive track record of delivering effective interventions that have improved health outcomes in communities all over the world.

Since it was founded in 2003, ECHO has offered case-based learning to more than 1.3 million clinicians and community leaders. The model was put to the test in September 2020 – at the height of the COVID-19 pandemic – when Project ECHO executed a 12-month program on behalf of the Agency for Healthcare Research and Quality (AHRQ) to work with U.S. nursing homes to reduce the spread of the coronavirus in their facilities.

"This was an amazing project," said Nancy Hood, Project ECHO's director of research and evaluation. According to AHRQ data, ECHO's 99 partner hubs offered training to 32,000 staff in 9,058 nursing homes – 59% of 15,400 facilities that were eligible.

"The most exciting thing about the nursing home project was it retained the small, two-way interaction, providing peer-to-peer learning in a safe, trusting environment," Hood said. "This was an environment where they could learn from each other and talk about their challenges and get the most up-to-date information."

ECHO has also made a measurable impact in tackling addiction. Joanna Katzman, MD, medical director of Project ECHO's Pain,

Substance Use and Public Health Program, and an expert in reducing reliance on medications to treat chronic pain, partnered with the Defense Health Agency in a four-year project to train Army and Navy medical providers in pain management and opioid prescribing.

The patient pool ranged from ages 18 to 64, females and males, seen at military health care clinics around the globe. "The doctors who were being trained via ECHO were not writing new opioid prescriptions and not getting them started on this whole course of treatment," Katzman said. "By training clinicians, you can change provider behavior, which then can affect patient care. That's really what we are showing."

UNM pulmonologist Akshay Sood, MBBS, MPH, who specializes in treating miners for black lung disease and pneumoconiosis, worked with Miners' Colfax Medical Center in Raton, N.M., to create a tele-ECHO to train rural clinicians to care for a surge of new patients.

"The program provides longitudinal tele-mentoring to professionals taking care of miners," Sood said. "It focuses on underserved populations and it serves a rural need that's emerging. To the best of our knowledge, it's one of the few programs that focuses on occupational diseases."

Following sessions that unfolded over a 12-month period in 2018 and 2019, participating clinicians, care providers and others reported



JOANNA KATZMAN, MD



AKSHAY SOOD, MBBS, MPH

significantly greater self-efficacy in treating miners' lung disease.

The program was "a genuine partnership between a university and rural community health institution," Sood said. "There's no one institute that has all the skillsets required to take care of miners."

It also helped that the presentations were provided by experts in New Mexico. "Knowledge transfer coming from rural areas is more effective than knowledge transfer coming from urban areas," he said. "ECHO is a very powerful tool for people in rural areas." ■

Elemental Research

UNM Center for Metals in Biology in Medicine Aims to Shed Light on Complex Interactions

By Michael Haederle

Minute amounts of metallic elements in our diets play an essential role in maintaining cellular health, but it is well known that in higher doses they can be toxic.

The University of New Mexico Center for Metals in Biology in Medicine, funded by a five-year, \$11.5 million grant from the National Institute of General Medical Sciences, is focused on better understanding the ways in which metals help – and hinder – biological processes.

The Center is a multidisciplinary effort led by Matthew Campen, PhD, professor in the College of Pharmacy, and associate director of the UNM Clinical & Translational Science Center. It brings together faculty members from across the Health Sciences campus and creates new joint resources, including a state-of-the-art analytical chemistry core.

“The rationale is we have been studying heavy metal toxicity for so long that we have this background expertise here that can be shared with anybody studying metals anywhere in medicine,” says Campen, who serves as the Center’s director.

The Center’s senior leadership also includes associate director Jim Liu, PhD, Laurie Hudson, PhD, director for career development, and Jim Feng, PhD, director of the Integrated Molecular Analysis Core. The Biostatistics Core, led by

director Yiliang Zhu, PhD, plays a key supporting role.

“The work from Laurie Hudson and Jim Liu over the past five to 10 years is a great example of how this works,” Campen says. They have shown how arsenic, a toxic metal sometimes ingested by people living near abandoned mining sites, competes with zinc in cellular proteins.

“If you have a greater amount of zinc in your diet you can offset that,” Campen says. “Maybe the simplest solution is to give them supplements of zinc.”

The Center, funded under the federal Center of Biomedical Research Excellence (COBRE) program, is also home to mentored junior faculty to help them become principal investigators on their own research grants, Campen says.

Junior faculty members include Alicia Bolt, PhD, an assistant professor in the College of Pharmacy, who studies how occupational exposure to tungsten may promote cancer metastasis, Campen says.

Xiang Xue, PhD, assistant professor in the Department of Biochemistry & Molecular Biology, studies how dietary iron affects tumor cell metabolism in colorectal cancer. “His research is really central to that issue,” Campen says.

Rama Gullapalli, MD, an assistant professor in the Department of Pathology, “is interested in gall



MATTHEW CAMPEN, PHD

bladder cancer,” Campen says.

“There seems to be a role for heavy metals in driving incidence there.”

In the College of Pharmacy, assistant professor Xixi Zhou, PhD, is studying how arsenic can cause specific patterns of DNA damage and mutation in lung cancer.

A year after the initial grant award, the Center has hired staff and is opening its new analytical chemistry laboratory, with Ting Jiang, PhD, and Rui Liu, PhD, overseeing it as a service center with the capacity to conduct inductively coupled mass spectrometry.

“We can look at uranium uptake or iron levels or cadmium, or lead,” Campen says. “We’ll also have the opportunity to look at biological molecules and how they interact with them and see whether proteins are binding to metals with high affinity. If you have a biological marker for oxidative stress or DNA damage we’ll be able to measure those.”

The Center is one of three COBRE programs at UNM, said Richard S. Larson, MD, PhD, Vice President for Research, Health Sciences.

“This is our third COBRE,” Larson says. “It puts us at the cap of allowable COBREs for an institution. Our metals and environmental health signature program is a great accomplishment for the College of Pharmacy.” ■

Seeing the Big Picture

UNM College of Nursing Research Focuses on Patients, Their Families & Their Communities

By Cindy Foster

Unique to nursing research is an emphasis on the impact nursing care provides – not just for patients – but the community at large says Patricia Ann Watts Kelley, PhD, RN, professor and associate dean for Research and Scholarship in The University of New Mexico College of Nursing.

“A key question for our nursing research investigators is always, ‘How can we prepare a nurse to create better health for the patient?’” she says. “We know that the success for each patient will be dependent on the family support and the community support they receive.”

Current research projects in the college range from looking at how personal protective equipment affects nurse/patient communication, to analyzing supports that can enhance nursing resilience within the military and investigating what community engagement behaviors can help decrease the impact of COVID-19.

Other projects include examining how the mother-baby relationship can be improved, how school nurses can be supported through the pandemic and how environmental toxins can harm health.

While the topics vary, they share a common approach in looking at ways to improve the health care

environment for patients, nurses and community.

Kelley points out that while a physician might dictate or order the care, the role of administering that care falls to the nurse.

As the only Carnegie R1 university in the state, she adds, the college has a goal of incorporating a holistic nursing perspective within the scientific research framework.

“There is both an advocacy role and a coaching one that comes into play in nursing research projects,” she says.

As an example, she pointed to a recent study investigating which nursing interventions were seen as most helpful by diabetics and their families.

In interviews, researchers found diabetic patients believed the most successful experience came from working with a drop-in nurse who would check in between appointments, answer questions and monitor follow-up visits.

“Our goal with our research is to develop the body of nursing science to better provide good care and to find effective ways to help patients find the best ways to take care of their own health,” she says.

Kelley’s own research working with military families of wounded service members shows that holistic focus.



PATRICIA ANN WATTS KELLEY,
PHD, RN

“Nurses meet people where they are and they recognize their human condition . . .”

“I’ve done 20 years of military response on wounded and injured soldiers,” she says. “I begin by asking them what their wounded care journey was, and then I ask the nurse about what worked and didn’t work. At that point, I go to the family, because I want to hear from the family about their needs and I know those needs can sometimes get lost in the process.”

Analyzing that information can then lead to an improvement in infrastructure and support services, ensuring that resources are provided most effectively for patients and family caregivers, she said.

“Nurses meet people where they are and they recognize their human condition as they try to move them on the continuum of health, and that is reflected in our research studies,” Kelley says. “It is important for it to be a holistic approach as we strive to improve the health of patients, their families and communities.” ■



ALAN TOMKINSON, PHD

Stepping Up

By Rebecca Roybal Jones

Alan Tomkinson, PhD, has been serving as the interim director and CEO of The University of New Mexico Comprehensive Cancer Center for a few months now.

He is filling the very large shoes of longtime Cancer Center CEO Cheryl Willman, MD, who was recently named executive director of the Mayo Clinic Cancer Programs and director of Mayo Clinic Comprehensive Cancer Center. The Mayo Clinic is the nation's top-ranked health care delivery system and hospital.

Although Tomkinson says he's honored to lead the center until a permanent director is named, he will be happy to return to his research lab.

"Obviously, it was a bit of a shock when Dr. Willman announced that she was taking another position," Tomkinson says. "It's not something that we had anticipated."

He adds that leading the cancer center wasn't top of mind, either. In fact, he had contemplated retiring. He's since laid the idea to rest and is committed to mapping out a strategy for the next renewal of the

Cancer Center's National Cancer Institute (NCI) designation. The Cancer Center is one of only 51 NCI-designated comprehensive cancer centers in the nation – the highest federal designation and rating for cancer centers.

Tomkinson has been deeply involved in the most recent NCI renewal process, which takes place every five years, and in setting strategy for the next several years.

"To me, it's important that we continue the momentum that we built up and implement the strategic goals that we had – or start to move towards them," he says. "I think if we wait it's harder to get it going again. I see my role as keeping the cancer center moving forward while we look for a new director, and then handing off something that's in a good state for them to pick up."

Tomkinson is leading the center with chief medical officer Zonnedey Dayao, MD, and Carolyn Muller, MD, associate director for clinical research.

"Together, we have the expertise to run the center," Tomkinson says.

Tomkinson holds numerous titles at UNM beyond his current

assignments. He also is associate director for Basic Research at the Cancer Center, as well as a tenured professor and vice chief of the Division of Molecular Medicine in the Department of Internal Medicine, and a professor in the Department of Molecular Genetics & Microbiology.

Over the years, he's received grants from the National Institutes of Health (NIH) to research roles of DNA ligase 1 in mammalian DNA metabolism. He's published dozens of articles, and for the past 20 years, his lab has been funded by three NIH RO1 grants for health-related research and development, as well as an NCI program project.

Earlier in his career, Tomkinson worked at the University of Texas Health Science Center at San Antonio and the University of Maryland in Baltimore. He also completed two post-doctoral degrees, one at Imperial Cancer Research Fund in London, and at University of California, Berkeley.

He also was principal investigator of an NCI T32 grant focused on DNA repair and tumor suppressors at the University of Texas. He continues to lead a lab using cutting-edge

Alan Tomkinson Takes on Leadership Role at the UNM Comprehensive Cancer Center

He recently received a new five-year program project grant to continue his mission of finding ways to stop cancer in its tracks.

technologies in basic and translational research.

Tomkinson's cancer research has been part of his life since he was a young man.

During his last year as an undergraduate student at Newcastle University in England, he became interested in xeroderma pigmentosum, a rare disease in which some people are born with an extreme sensitivity to sunlight. This disease significantly increases the risk of skin cancer.

"I was really interested in how sunlight would cause cancer," he says. "Clearly, there were repair mechanisms in the body that protect against those things, and so I became interested in those, how that worked. There were several of these rare diseases, in which it was clear that if you couldn't repair damage to DNA that you were predisposed to cancer.

"So, the question was, does this underlie things like sporadic cancers, which are much more prevalent? These are very rare genetic diseases, but you have lots of cancer and most of them are not driven by an inherited defect."

After training with protein biochemists, Tomkinson was mentored in London by Tomas Lindahl, a Nobel Prize winner in chemistry, whose specialty is DNA damage and repair.

They worked on proteins called DNA ligases, he says. His research focuses on finding a treatment that targets only cancer cells, rather than hitting all cells.

"It means that if you want to treat a cancer, what you need to find is something that's selected for the cancer cell. Because many of the treatments that we've had for a long time do a lot of damage to normal cells," Tomkinson says.

Targeting the cancer cells rather than the whole person can provide a "therapeutic window where you can give a drug that's selected for the cancer cell and minimize the damage to the normal cell," he says. "Because there's no point in killing this cancer if you kill the patient, too."

To be able to do that, you need to know how the damage and repair work in a normal cell, and then what the changes are in the cancer cell so that you can think about how to

exploit that difference, Tomkinson explains.

"That's basically what my research program has been about: How do the normal cells do it? What are the mechanisms? How do they work?" he says. "Because there's not just one mechanism, it's a network of DNA repair mechanisms. What is the difference between that and a cancer cell, and how does the cancer cell work? What are the differences and can we develop something if a cancer cell becomes much more dependent on one pathway? Can we target that pathway and then not hurt the normal cell?"

Though he's considering winding down his research so that he can enjoy retirement, he'll likely be putting it off – he recently received a new five-year program project grant to continue his mission of finding ways to stop cancer in its tracks. ■

FAR-REACHING RESEARCH

Scientist Eric Prossnitz Detects Hidden Connection Among Common Diseases

By Michele W. Sequeira

Basic scientific research can help a wide range of people, oftentimes in unpredictable ways.

For example, many people think that cancer, obesity, diabetes, heart disease and infections have little in common. But Eric Prossnitz, PhD, has studied a cellular receptor that plays an important role in each of these diseases.

Prossnitz's discoveries about the G protein-coupled estrogen receptor (GPER) have led to a clinical trial for melanoma and other cancers, drug candidates for metabolic and cardiovascular diseases and possible treatment improvements for breast cancer.

Prossnitz began his study of breast cancer more than 15 years ago. He was particularly interested in why some women who initially respond to breast cancer drugs later develop resistance to them, allowing the cancer to recur. And when breast cancer recurs, it usually recurs more aggressively.

According to the National Cancer Institute's Surveillance, Epidemiology and End Results program, about 75% of the 280,000 women diagnosed with breast

cancer each year have estrogen receptor-positive (ER+) breast cancer. The anti-hormonal breast cancer drugs available, such as tamoxifen and fulvestrant, work very well in these cancers, but they are effective in only about two-thirds of patients. For about one-third of the women who initially respond, their breast cancer comes back, usually in a form that resists the drug.

"It's a huge number of women," Prossnitz says. In 2021 alone, more than 80,000 women could face a new or recurrent ER+ breast cancer that won't respond to anti-hormonal therapy.

Prossnitz, a cell biologist, teamed up with medicinal chemist Jeffrey Arterburn, PhD, at New Mexico State University, drug discovery expert Larry Sklar, PhD (now retired from UNM), UNM bioinformatics experts Tudor Oprea, MD, PhD, and Cristian Bologa, PhD, and cancer mouse models expert Helen Hathaway, PhD, also at UNM.

Tamoxifen, and drugs like it, block the estrogen receptor (ER) that resides primarily inside the cell nucleus, while fulvestrant and similar drugs induce the cell to degrade it. By blocking or degrading the

estrogen receptor, these anti-hormonal drugs greatly reduce the signal for ER+ cancer cells to grow.

But Prossnitz and his team showed that these drugs also activate GPER, which signals the cells to survive and keep growing, an action not known when these drugs were developed. GPER signals may explain why some women develop resistance, he says.

Prossnitz and Arterburn worked with Sklar to find two molecules that specifically target GPER and not ER. They searched a collection of 10,000 molecules, and to save time and effort they enlisted help from Oprea and Bologa, who applied computational biology techniques to narrow down the search to more likely compounds.

The team found a highly selective agonist (activator) of GPER that they named G-1, and a selective agonist of ER that they named AB-1. They obtained a patent for the compounds in 2011.

In 2016, a startup company called Linnaeus licensed G-1 from UNM Rainforest Innovations (formerly known as STC.UNM, a non-profit that oversees the transfer of UNM-developed technology).

BASIC SCIENTIFIC RESEARCH CAN HELP A WIDE RANGE OF PEOPLE, OFTENTIMES IN UNPREDICTABLE WAYS.

Linnaeus obtained FDA approval to launch a clinical trial to use G-1 in combination with immune therapy for melanoma and other cancers. The clinical trial opened in 2019, first at UNM Comprehensive Cancer Center under the leadership of Carolyn Muller, MD, and then at other cancer centers around the country.

Prossnitz had also wondered how G-1 affects other tissues and organs in the body. In several studies on mice published in *Science Translational Medicine* in 2020, he, Arterburn, Hathaway and Geetanjali Sharma, PhD, showed that obese and diabetic mice lost weight and recovered from their diabetes when treated with G-1.

Prossnitz is now advising a local startup company, GPER G-1 Development Group, that is developing the molecule for diabetes and obesity. He hopes that G-1 may revolutionize the treatment of metabolic disorders.

In still other studies, Prossnitz's UNM collaborator Pamela Hall, PhD, has shown that G-1 improves the outcome of methicillin-resistant *Staphylococcus aureus* (MRSA) infections of the skin. Prossnitz has

also conducted studies with international collaborator Matthias Barton, MD, that have shown the value of GPER modulation in cardiovascular and fibrotic diseases. Ongoing studies with other UNM colleagues are examining the role of GPER and the ability of G-1 to improve wound healing and inflammatory bowel disease.

Prossnitz and his team also continued to study AB-1.

In a 2019 paper published in *Cell Chemical Biology*, they described their studies showing AB-1's unique binding and activity behavior. In binding to the estrogen receptor, the

molecule does not activate GPER and might avoid the undesirable side effect that current anti-hormonal drugs have. Prossnitz and his team are working to refine the structure of AB-1 before they progress to preclinical studies. He hopes to one day improve breast cancer treatments.

Cancer, obesity, diabetes, heart disease and infections, it turns out, have one thing (at least) in common after all. And thanks to Prossnitz's and his team's studies of this new estrogen receptor at UNM, millions of people with diverse diseases may benefit. ■



ERIC PROSSNITZ, PHD

ROOM FOR GROWTH

CROSS-CAMPUS CONNECTIONS PAVE THE WAY FOR ENHANCED RESEARCH PARTNERSHIPS

University of New Mexico Health Sciences research is a multifaceted interdisciplinary enterprise that is building a track record of collaborations with specialists in multiple disciplines throughout the university – and beyond.

“I have been so impressed with the depth and breadth of researchers within Health Sciences and across the University as a whole,” said Douglas Ziedonis, MD, MPH, executive vice president for Health Sciences and CEO of the UNM Health System. “Successful research requires us to collaborate

and look for opportunities to grow our research in the spirit of One University.”

A leading example is UNM’s Transdisciplinary Research, Equity and Engagement (TREE) Center, whose director is Lisa Cacari Stone, PhD, associate professor in the UNM College of Population Health.

The center, which received \$7 million in funding from the National Institute on Minority Health and Health Disparities as one of 12 Centers of Excellence, promotes research to improve behavioral health outcomes for racial, ethnic, sexual, gender and geographic

minority communities while supporting new under-represented minority investigators.

The TREE Center’s team includes faculty members from the Colleges of Population Health, Pharmacy and Nursing, and the Departments of Pediatrics, Family & Community Medicine, Internal Medicine, Psychiatry & Behavioral Sciences in the School of Medicine, as well as the Central Campus Departments of Psychology, Political Sciences and Health, Exercise & Sports Sciences.

Another prominent example of interdisciplinary partnership is the



LUDMILA BAKHREVA, MD, PHD, MPH



LISA CACARI STONE, PHD



JOHNNYE LEWIS, PHD

“SUCCESSFUL RESEARCH REQUIRES US TO COLLABORATE AND LOOK FOR OPPORTUNITIES TO GROW OUR RESEARCH IN THE SPIRIT OF ONE UNIVERSITY.”

Douglas Ziedonis, MD, MPH, executive vice president for Health Sciences and CEO of the UNM Health System.

UNM Metals Exposure and Toxicity Assessment on Tribal Lands in the Southwest (UNM METALS) Superfund Research Program Center, headed by Johnnye Lewis, PhD, research professor in the College of Pharmacy.

The center, the first of its kind in the nation, studies the toxic effects of mixed metals and uranium exposure on tribal communities in the Southwest – the legacy of decades of mining.

In addition to College of Pharmacy faculty members, the UNM METALS project includes colleagues from the Central



CHRISTINA SALAS, PHD

Campus Departments of Computer Science, Mathematics & Statistics, Earth & Planetary Sciences, and Civil, Construction & Environmental Engineering.

Biomechanical engineer Christina Salas, PhD, embodies the cross-campus connection. She is an associate professor in the Department of Orthopaedics & Rehabilitation, with joint appointments in the School of Engineering's Department of Civil, Construction & Environmental Engineering and Department of Mechanical Engineering.

Her new research lab is located at the UNM Center of Excellence for Orthopedics & Rehabilitation, located on the Health Sciences Rio Rancho Campus adjacent to UNM Sandoval Regional Medical Center.

Meanwhile, HSC researchers play key roles in two of the three original Grand Challenges identified by UNM President Garnett Stokes in 2018.

The Successful Aging initiative, which seeks to compress the period of disability for New Mexico's aging population, is co-led by Janice Knoefel, MD, a geriatrician who practices at the

UNM Center for Memory & Aging, with partners in the Departments of Internal Medicine, Biochemistry & Molecular Biology, Psychology and Speech and Hearing Sciences.

The Substance Use Disorder Grand Challenge is co-led by Ludmila Bakhireva, MD, PhD, MPH, professor in the College of Pharmacy, and, on Central Campus, Katie Witkewitz, Regent's professor in the Department of Psychology. It focuses on developing new interventions to treat addiction to alcohol, opioids and other substances.

“We will have more collaborations to share in future years as we do strategic planning together, joint faculty and post-doc hiring and address practical aspects, such as ease of working with both our UNM institutional review boards, sharing research core services, expanded research career development and enhanced UNM-wide institutes and centers,” Ziedonis said.

“The ongoing growth of our research enterprise with partners across the state will also lead to new unprecedented growth and impact.” ■

Research 2021 Training Grants



Rosstin Ahmadian, PhD Candidate

Cell Biology & Physiology
T32 Scholar, NHLBI

Mechanism of pulmonary vasoreactivity in response to chronic hypoxia

Mentor: Thomas Resta, PhD



Roger Atanga, PhD Candidate

Internal Medicine
K01 Scholar, NIDDK

Intestinal injury causes Wnt-dependent secretory differentiation in human colonoids

Mentor: Julie In, PhD



Justin Baca, MD

Associate Professor, Emergency Medicine
KL2 Scholar, CTSC

Point-of-care testing, first in human device studies, wearable sensors, interstitial fluid analysis, breath-based diagnostics

Mentors: Erin Milligan, PhD, and Andrew Shreve, PhD



Elizabeth Bailey, PhD

Postdoctoral Fellow, Pathology
ASERT, NIGMS

Understanding how spatial-temporal organization of biochemical interactions between immune receptors and their accessory molecules shape immune receptor signaling and resulting immune response

Mentors: Diane Lidke, PhD, and Judy Cannon, PhD



Victoria Balise, PhD

Postdoctoral Fellow, Pathology
K12 Scholar, NIGMS

Identifying how tetraspanins regulate processes involved in hematopoietic stem and progenitor cells

Mentors: Jennifer Gillette, PhD, and Alicia Bolt, PhD



Eliseo Castillo, PhD

Assistant Professor, Internal Medicine
KL2 Scholar, CTSC

Macrophage and intestinal epithelial cell interaction in inflammatory bowel disease, Intestinal epithelial cell metabolism in non-alcoholic fatty liver disease, studying microplastics impact on gastrointestinal health

Mentors: Judy Cannon, PhD, Matthew Campen, PhD, and Hengameh Raissy, PharmD



Elizabeth Clarke, PhD

Postdoctoral Fellow, Internal Medicine
T32, NIAID

Glycosylation of viral proteins

Mentor: Steven Bradfute, PhD



Amanda Collar, PhD Candidate

Molecular Genetics & Microbiology
T32 Scholar, NIAID; F30 Scholar, NIAID

Investigating protective antibody epitopes in response to natural urogenital Chlamydia trachomatis infection and engineering prophylactic vaccine candidates for urogenital Chlamydia trachomatis infection

Mentor: Kathryn Fietze, PhD



Thomas De Pree, PhD

Postdoctoral Fellow, College of Pharmacy
K12 Scholar, NIGMS

Community-based participatory research and traditional ecological knowledge in metal exposure and toxicity assessments on tribal lands in the Southwest

Mentors: Debra MacKenzie, PhD, and Johnnye Lewis, PhD



Daryl Domman, MD

Assistant Professor, Internal Medicine
KL2 Scholar, CTSC

Transmission dynamics and evolution of pandemic cholera, genomic epidemiology of SARS-CoV-2 and understanding antimicrobial resistance

Mentors: Nestor Sosa, MD, Kimberly Page, PhD



Christian Levi Doyle, PhD Candidate

Pathology
T34 Scholar, NCI

Investigating the impact of CD82 on acute myeloid leukemia tumor burden and cell dormancy within the bone marrow niche

Mentor: Jennifer Gillette, PhD



Daniel Falcón, PhD

Postdoctoral Fellow, Internal Medicine
K12 Scholar, NIGMS

Studying PARP inhibition impact on the suppressive function of regulatory T cells in syngeneic models of high-grade serous ovarian cancer

Mentor: Sarah Adams, MD



Máté Fischer, PhD Candidate

Neurosciences
T32 Scholar, NIAAA

Neuroscience, developmental neurobiology, RNA biology, stem cell biology

Mentor: Jason Weick, PhD



Muskan Floren, PhD

Postdoctoral Fellow, Pathology
F32 Scholar, NCI

Acute myeloid leukemia resistance and relapse

Mentor: Jennifer Gillette, PhD



Kathryn Fietze, PhD

Assistant Professor, Molecular Genetics & Microbiology

KL2 Scholar, CTSC

Investigating infectious disease antibody responses to develop new vaccines

Mentor: Bryce Chackerian, PhD



Selina Garcia, PhD

Postdoctoral Fellow, Cell Biology & Physiology

T32 Scholar, NHLBI

Cardiovascular physiology

Mentor: Laura Gonzalez Bosc, PhD, and Nikki Jernigan, PhD



Samuel Goodfellow, PhD Candidate

Internal Medicine
T32 Scholar, NIAID

Focusing on single-stranded, negative sense RNA orthohantaviruses to study the dynamics of host reservoirs and spillover into human populations

Mentor: Steven Bradfute, PhD



Lucie Jelinkova, PhD

Postdoctoral Fellow, Molecular Genetics & Microbiology

T32 Scholar, NIAID

Biology of infectious disease and inflammation

Mentor: Bryce Chackerian, PhD



Randy Ko, PhD Candidate

Dermatology
T32 Scholar, NHLBI

Studying the G-protein-coupled estrogen receptor and its selective ligands in metabolic disease

Mentors: Eric Prossnitz, PhD, Justin Baca, MD, PhD, Thomas Resta, PhD



Benjamin Lantz, PhD Candidate

Cell Biology & Physiology
T32 Scholar, NHLBI

Immune response to chronic hypoxia-induced pulmonary hypertension

Mentor: Laura Gonzalez Bosc, PhD



Milindu Liyanapathirana, PhD Candidate

Neurosciences

K22 Scholar, NINDS

Underlying molecular mechanisms of gliogenesis and gliomagenesis in the CNS

Mentor: Tou Yia Vue, PhD



Adrian Luna-Leon, PhD

Postdoctoral Fellow, Molecular Genetics & Microbiology
F31 Scholar, NCI
EGFR signaling as the nexus for HPV oncogene regulation
Mentor: Michelle Ozburn, MD



Christy Mancuso, PhD

Postdoctoral Fellow, Neurosciences
ASERT, NIGMS
Studying compound-specific amino acid isotope measurements to understand the creation and maintenance of protein-rich tissues
Mentor: Seth Newsome, PhD



Emily Morin, PhD

Postdoctoral Fellow, Cell Biology & Physiology
ASERT, NIGMS
Endothelial cell membrane cholesterol regulation of vasodilatory pathways
Mentors: Jay Naik, PhD, Laura Gonzalez Bosc, PhD, and Nancy Kanagy, PhD



Bianca Myers, PhD Candidate

Neurosciences
T32 Scholar, NIAAA
Studying the effect of adult alcohol consumption on the progression of glioblastoma multiforme
Mentor: C. Fernando Valenzuela, MD, PhD



Sarah Olguin, PhD Candidate

Neurosciences
T32 Scholar, NIAAA
Using dura-resting EEG to evaluate PAE effects on attention and cognitive control using touchscreen approaches
Mentor: Jonathan Brigman, PhD



Amalia Parra, PhD

Postdoctoral Fellow, Cell Biology & Physiology
T32 Scholar, NIH
Molecular pharmacology and toxicology
Mentor: Matthew Campen, PhD



Erica Pascetti, PhD Candidate

Pathology
T32 Scholar, NHLBI
Hematopoietic stem and progenitor cells
Mentor: Jennifer Gillette, PhD



Julianne Peabody, PhD Student

Research Specialist, Molecular Genetics & Microbiology
T32 Scholar, NIAID
Biology of Infectious Disease and Inflammation
Mentors: Bryce Chackerian, PhD, and Steven Bradfute, PhD



Gabriela Perales, PhD Candidate

Neurosciences
F31 Scholar, NIAAA
Mir-150-5p disrupts vascular development in the brain during prenatal alcohol exposure
Mentor: Amy Gardiner, PhD



Crina (Floruta) Peterson, MD, PhD

Neurosciences
F30 Scholar, NINDS
Studying embryonic stem cell patterning in neurons; using human pluripotent stem cell-derived (hPSC) neurons to study brain tumors and to study and treat brain injury
Mentor: Jason Weick, PhD



Melanie Rivera, PhD

Postdoctoral Fellow, Pathology
F31 Scholar, NCI
Investigating the role of Rac1 in ovarian cancer metastasis in the peritoneal niche, including the role of immune modulation by a Rac1-targeting drug or knockout
Mentor: Angela Wandinger-Ness, PhD



Emmanuel Rosas, PhD

Postdoctoral Fellow, Internal Medicine
ASERT, NIGMS
Role of G-protein coupled estrogen receptor in anoikis resistance in ER+ breast cancer
Mentor: Eric Prossnitz, PhD



Raquela Thomas, PhD

Postdoctoral Fellow, Internal Medicine
ASERT, NIGMS
Oncolytic myxoma viruses
Mentors: Eric Bartee, PhD, and Alison Kell, PhD



Nicole Thompson-Gonzalez, PhD

Postdoctoral Fellow, Anthropology
K12 Scholar, NIGMS
Differentiated acute vs. cumulative environmental effects, including socioecological influences on mortality, critical periods in the development of social strategies, and signatures of oxidative damage during trauma vs. senescence.
Mentor: Melissa Emery Thompson, PhD



Megan Thursby, PhD Candidate

Cell Biology & Physiology
T32 Scholar, NHLBI
Vascular smooth muscle function in pulmonary hypertension
Mentor: Nikki Jernigan, PhD



Leslie Toledo-Jacobo, PhD

Postdoctoral Fellow, Pathology
The role of myotonic dystrophy kinase-related cdc42 binding kinases (MRCK) in ovarian cancer metastatic pathway
Mentor: Angela Wandinger-Ness,
Co-mentor: Laurie Hudson



Nikole Warner, PhD

Postdoctoral Fellow, Molecular Genetics & Microbiology
KL2 CTSC Scholar, NIGMS; T32 Scholar, NIAID; K12 Scholar, NIGMS
Investigating antibody responses to dengue virus using novel deep sequence-coupled biopanning technique to develop novel vaccines
Mentors: Bryce Chackerian, PhD, Kathryn Frieze, PhD, and Kathryn Hanley, PhD



Jesse Young, PhD

Postdoctoral Fellow, Pediatrics
T32 Scholar, NIAID
Infectious disease, epidemiology and clinical diagnostics
Mentor: Darrell Dinwiddie, PhD



Amber Zimmerman, PhD

Postdoctoral Fellow, Neurosciences
F31 Scholar, NIMH
Circular RNA contribution to behavioral alterations in psychiatric disease
Mentor: Jonathan Brigman, PhD

Excellence in Research Awards 2021

The University of New Mexico Health Sciences' 13th Annual Research Day Awards Ceremony was held (via Zoom) on November 23, 2021. The event, hosted by Vice President Richard S. Larson, MD, PhD, recognized six scientists who were nominated by their peers and selected for recognition by a faculty committee on the basis of their outstanding research contributions.



Jonathan Brigman, PhD
Neurosciences
Team Science

Jonathan Brigman has been a team player since joining the UNM faculty a decade ago, and in 2014 he helped shepherd UNM's application for P50 National Institutes of Health funding for the New Mexico Alcohol Research Center. He also helped obtain P20 COBRE funding for the UNM Center for Brain Recovery and Repair. His laboratory focuses on the effect of developmental exposure to alcohol on executive function in multiple domains, including behavioral flexibility, working memory, cognitive control and reward-seeking behaviors. He has shown that even moderate exposure to alcohol during pregnancy can lead to long-term deficits in these behaviors. He currently is investigating the effects of prenatal alcohol exposure on the function of both the parietal and prefrontal cortex on attention and cognitive control.



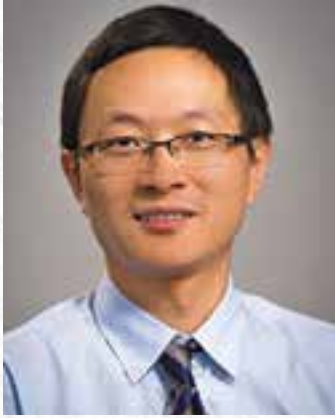
Diane Lidke, PhD
Pathology
Basic Science

Diane Lidke's research integrates the disciplines of biophysics, bio-imaging and quantitative biology to gain new and fundamental understanding of the components and dynamics of cell signaling pathways. Her particular expertise is in applications of fluorescence spectroscopy and microscopy to study protein dynamics and protein-protein interactions during cell signaling. She has refined important fluorescence microscopy techniques, particularly the use of biofunctionalized quantum dot nanoparticles to observe the movement and interactions of receptors on cell surfaces. She also has extensive experience with a wide range of visible fluorescent fusion proteins and molecular tags that can be introduced as transgenes to explore the distribution and interaction of signaling proteins and complexes.



Melissa Gonzales, PhD
Internal Medicine
Population Science

Melissa Gonzales studies the contribution of environmental exposure to health disparities. As a founder of the UNM Center for Native American Environmental Health (EH) Equity Research and a leading member of the UNM Metal Exposure and Toxicity Assessment on Tribal Lands in the Southwest (METALS) Superfund Center, she has explored risk reduction strategies for tribal populations. She has examined heavy metal exposures from traditional/cultural practices and the airborne transport of toxic metals from abandoned uranium mines. She has also helped lead the renewal of the Native EH Equity Center, which examines the impact of insufficient solid waste management infrastructure on emerging pollutants and health. She has been nominated to serve on several National Academies of Science, Engineering and Medicine committees.



Xian Xue, PhD
*Biochemistry & Molecular
Biology*
Junior Faculty

Xian Xue's research covers a broad range of subjects. He has investigated the impact of basolateral iron export machinery hepcidin-ferroportin axis on nucleotide metabolism and colon tumorigenesis and demonstrated that mitophagy protein PINK1 suppresses colon tumor growth by reducing acetyl-CoA production. He and his collaborators first reported the deaths of Chinese health care workers from COVID-19, calling for a vigorous response to prevent SARS-CoV-2 infection. He also measured anti-SARS-CoV-2 antibody levels in convalescent plasma from six donors who had recovered from COVID-19 to help establish a convalescent plasma donor screening protocol. His lab also found that hemin increased Sestrin 2, a novel tumor suppressor, in a dose-dependent fashion, and found that an iron-rich environment could suppress oxidative stress-associated cancer cell death, resulting in a net tumor-promoting effect.



Christopher Abbott, MD
*Psychiatry & Behavioral
Sciences*
Clinical Science

Christopher Abbott has pioneered new approaches to treating serious mental illness with the use of electroconvulsive therapy (ECT) by focusing on ECT neuroimaging response biomarkers. His current research focuses on understanding the role of ECT pulse amplitude on electric field modeling, neuroplasticity and clinical outcomes. Important contributions include identifying neuroimaging predictive biomarkers associated with ECT response, characterizing the relationship between electric field strength and neuroplasticity and studying the association between neuroplasticity and clinical outcomes. These findings have been extended to include the assessment of changes in neuroplasticity related to ECT parameters, including electrode placement and pulse amplitude. He also is using electric field modeling and neuroimaging correlates to change ECT dosing to improve antidepressant response rates while minimizing cognitive risk.

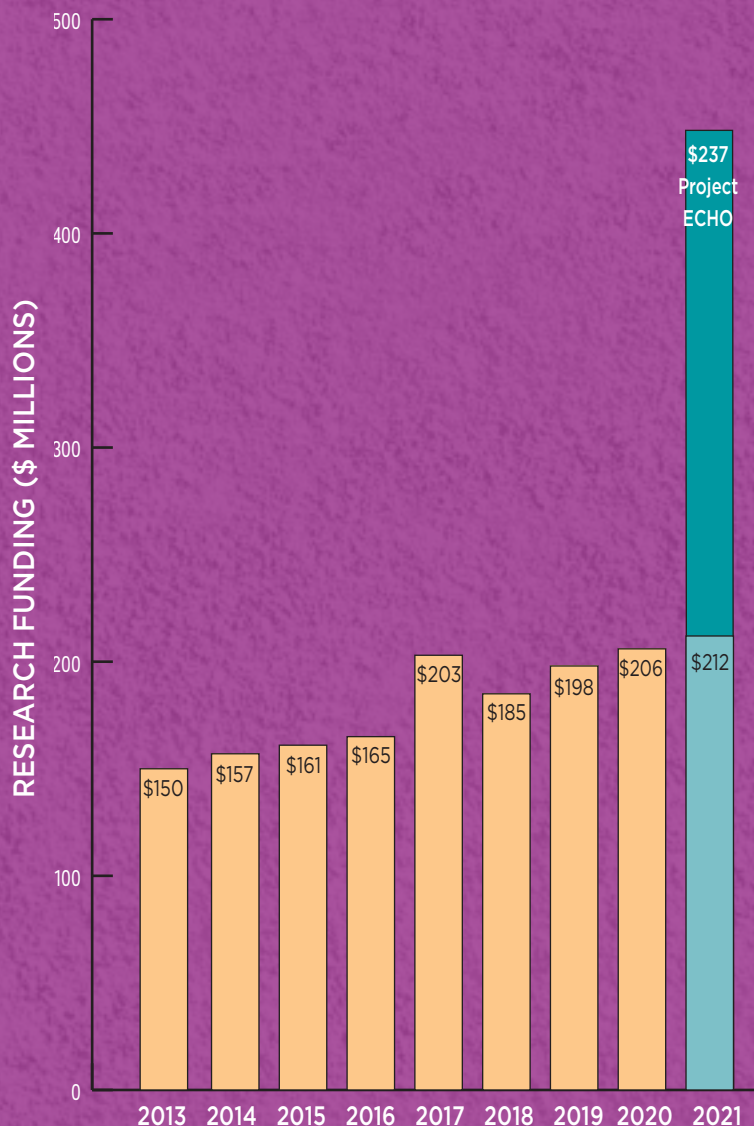


Jonathan Eldredge, MLS, PhD
*Health Sciences Library &
Informatics Center*
*Scholarship of Teaching and
Learning*

Jonathan Eldredge is internationally recognized for his continuing excellence in research on evidence-based practice teaching and learning. His passion for evidence-based practice education and research has influenced the entire trajectory of the health sciences librarianship profession. He is a pioneer in using randomized controlled trials (RCT) to study the efficacy of different methods of teaching learners how to implement evidence-based practice. Most recently, he led an RCT to study whether a rubric designed to improve medical students' ability to formulate clinical questions would be improved with the addition of a 25-minute educational session designed to teach the students skills and offer practice using the rubric. This helped demonstrate a novel and efficacious way to train medical students to ask better questions.

Contracts and Grants 2021

Grant Award Totals 2013-2021



The University of New Mexico Health Sciences research enterprise received a record \$212 million in extramural funding for FY 2021.

A one-time infusion of \$237 million for Project ECHO's collaboration with the Agency for Healthcare Research & Quality to disseminate COVID safety practices at 15,000 U.S. nursing homes brings the total to \$449 million.

Office of the Executive Vice President	31
Office of the Vice President, Health Sciences	31
Center for Infectious Disease & Immunity	31
Health Sciences Library & Informatics Center	31
Center for Memory & Aging	31
HSC Office of Research	31
Clinical & Translational Science Center	32
College of Nursing	32
College of Pharmacy	33
College of Population Health	34
School of Medicine	35
Anesthesiology & Critical Care Medicine	35
Biochemistry & Molecular Biology	35
Cell Biology & Physiology	35
Comprehensive Cancer Center	35
Dental Medicine	37
Dermatology	37
ECHO Institute	37
Emergency Medicine	39
Family & Community Medicine	40
Internal Medicine	41
Molecular Genetics & Microbiology	43
Neurology	44
Neurosciences	45
Neurosurgery	45
Obstetrics & Gynecology	46
Office of the Medical Investigator	46
Ophthalmology & Visual Sciences	46
Orthopaedics & Rehabilitation	46
Pathology	47
Pediatrics	48
Psychiatry & Behavioral Sciences	50
Radiology	52
Surgery	52
UNM Hospital	52
UNM Medical Group, Inc.	52

OFFICE OF THE EXECUTIVE VICE PRESIDENT

Elizabeth Kocher

Albuquerque Healthcare for the Homeless, Inc.
Locum Tenens Services \$50,000

A. Robb McLean

City of Albuquerque
Pediatric Health/MSW Services Program - Continuation \$161,970

City of Albuquerque
Medical Director Services \$137,455

Lovelace UNM Rehabilitation Services
Pain Clinic - Professional Services \$25,000

Gary Mlady

John F. Crisler, DDS, PA
Medical Physicist Services \$25,000

Douglas Ziedonis

State of New Mexico
FEMA COVID-19 Projects \$2,000,000

OFFICE OF THE VICE PRESIDENT, HEALTH SCIENCES RESEARCH

Elizabeth Kocher

Pueblo of Jemez
Locum Tenens Services FY22 \$25,000

Miners Colfax Medical Center
Locum Tenens Services FY22
Miners Colfax \$25,000

Locum Tenens
Medical & Dental Medicine \$25,000

Miners Colfax Medical Center
Locum Tenens Services \$25,000

Pueblo of Sandia
Locum Tenens Services \$25,000

Richard Larson

UNM Foundation
Private Gifts for Research (2nd Qtr - FY21) \$1,776,825

UNM Foundation
Private Gifts for Research (4th Qtr - FY21) \$1,154,823

UNM Foundation
Private Gifts for Research (3rd Qtr - FY21) \$190,842

UNM Foundation
Private Gifts for Research (1st Qtr - FY21) \$57,638

Melissa Martinez

New Mexico Department of Health
Physician, PA and NP Services Project \$40,000

A. Robb McLean

New Mexico Department of Health
Locum Tenens Program DOH Physician,
PA and NP Services \$75,000

New Mexico Department of Health
Locum Tenens Program DOH Physician,
PA and NP Services - Non-Specific
Supplement \$67,805

The Bell Group, Inc.
Professional Services: UNM Center
for Life - Continuation \$25,000

New Mexico Department of Health
Physician, PA and NP Services
Project \$10,000

Center for Infectious Disease & Immunity

Michelle Ozbun

National Institute of Allergy and Infectious
Diseases
Biology of Infectious Disease and
Inflammation \$298,025

Terry Wu

Advanced Technology International
Mod 4 - Nanolipoprotein Particle-Based
Subunit Vaccine Against Pneumonic
Tularemia - Supplement \$1,200,000

Advanced Technology International
Mod 3 Nanolipoprotein Particle-Based
Subunit Vaccine Against Pneumonic
Tularemia - Non-Specific
Supplement \$500,000

Advanced Technology International
Mod 2 - Nanolipoprotein Particle-Based
Subunit Vaccine Against Pneumonic
Tularemia - Non-Specific
Supplement \$87,360

Health Sciences Library & Informatics Center

Jonathan Pringle

University of North Texas Health Sciences
Center
Native Health Database Metadata
Migration \$24,348

Center for Memory & Aging

Janice Knoefel

Lilly USA, LLC
Donanemab in Early Symptomatic
Alzheimer's Disease (TRAILBLAZER-ALZ 2)
Clinical Trial Phase 3 \$588,843

Gary Rosenberg

National Institute on Aging
N.M. Alzheimer's Disease Research
Center \$1,069,505

HSC OFFICE OF RESEARCH

Andrew Hsi

Bernalillo County
ADOBE ABC \$126,327

Larissa Myaskovsky

National Institute on Minority Health
and Health Disparities
Access to Kidney Transplantation in Minority
Populations - Continuation \$559,424



National Institute on Minority Health and Health Disparities
Access to Kidney Transplantation in Minority Populations \$480,005

National Institute on Minority Health and Health Disparities
Access to Kidney Transplantation in Minority Populations - Non-Specific Supplement \$62,157

Gary Rosenberg

National Center for Research Resources
MRI and CSF Biomarkers of White Matter Injury in VCID - Continuation \$1,105,721

CLINICAL & TRANSLATIONAL SCIENCE CENTER

Justin Baca

Beckman Coulter Inc.
Access Natriuretic Peptide Assay(s) ED Pivotal – Subject Enrollment and Specimen Collection \$357,120

Autonomous Medical Devices Inc.
COVID19- AMDI-Autolab-20-01 \$159,219

Clear Creek Bio Inc.
CRISIS COVID Clinical Trial \$129,115

Abbott Point of Care Inc.
Abbott Creatinine POC \$83,648

National Institutes of Health
R03 - Quantifying Heavy Metals in Interstitial Fluid for Remote Monitoring of Chronic Exposures \$75,750

RingIR
COVID-19 Rapid Molecular Identification of COVID-19 Via Runtime Breath Analysis \$25,000

Lee Brown

Ohio State University
The Impact of Low-Flow Nocturnal Oxygen Therapy on Hospital Readmission/Mortality in Patients With Heart Failure and Central Sleep Apnea: a Pragmatic Trial Year 3 \$65,128

Lisa Cacari-Stone

Research Triangle Institute
WEAVE N.M. \$706,573

Matthew Campen

National Center for Advancing Translational Sciences
HSC Clinical & Translational Science Center KL2 2020-2025 - Continuation \$394,876

Eliseo Castillo

National Institute of Environmental Health Sciences
Defining the Harmful Effects of Microplastics on Gastrointestinal Health \$112,499

Daryl Domman

Centers for Disease Control and Prevention
Genomic Sequencing and Phylodynamic Analysis of SARS-CoV-2 in the Mountain West USA \$747,885

Los Alamos National Laboratory
Phylodynamic Methods for Actionable Understanding of the COVID-19 Pandemic \$30,800

Association of Public Health Laboratories
COVID-19 APHL Data Analysis - Wyoming \$22,654

Brandi Fink

Seattle Children's Hospital
Heal Surgery referral Study \$4,000

Kathryn Frieze

National Institutes of Health
Bacteriophage Virus-Like Particle Vaccines Against Dengue Virus Non-Structural Protein 1 - Continuation \$227,250

Michelle Harkins

Leidos, Inc
COVID19: Adaptive COVID-19 Treatment Trial - Non-Specific Supplement \$266,000

Leidos, Inc
COVID19: Adaptive COVID-19 Treatment Trial (ACTT4) \$220,000

Leidos, Inc
COVID19: Adaptive COVID-19 Treatment Trial - Continuation \$218,000

Vanderbilt University Medical Center
PEER (ACTIV 4d RAAS) \$215,200

Alberta Kong

University of Arkansas
DCOC Leadership Committee \$47,576

University of Arkansas
lamhealthy Medical Monitor \$47,516

Richard Larson

University of Nevada, Las Vegas
Institutional Development Award Program Infrastructure for Clinical and Translational Research: BERD - Continuation \$206,596

University of Utah
Clinical & Translational Science Center Opioid ECHO (Arora) \$155,587

University of Nevada, Las Vegas
Institutional Development Award Program Infrastructure for Clinical and Translational Research : PDC - Continuation \$149,244

Dialysis Clinic, Inc.
Kidney Pilot Project Award - Continuation \$100,000

University of Nevada, Las Vegas
CTR-IN Multi-Site Pilot (Round 8): Evaluation of Secondary Prevention \$78,607

University of Nevada, Las Vegas
Institutional Development Award Program Infrastructure for Clinical and Translational Research: T&E - Continuation \$40,352

University of Pittsburgh
NCATS Accrual to Clinical Trials Project - Continuation \$37,876

University of Nevada, Las Vegas
Institutional Development Award Program Infrastructure for Clinical and Translational Research: CEO - Continuation \$16,145

Eric Prossnitz

Virtici, LLC
ASCEND - Continuation (Yr3) \$819,373

Hengameh Raissy

Eunice Kennedy Shriver National Institute of Child Health and Human Development
UNM Pediatric Clinical Trials Center in IDeA States Pediatric Clinical Trials \$416,580

University of Arkansas
VDORA \$159,205

University of Arkansas
Data Coordinating and Operations Center for the IDeA States Pediatric Clinical Trials Network - VDORA - Continuation \$108,909

Jay Raval

Johns Hopkins University School of Medicine
Convalescent Plasma Randomized Clinical Trials for Early COVID-19 Treatment \$881,380

Vanderbilt University Medical Center
COVID19- PASSITON \$213,812

Johns Hopkins University School of Medicine
Convalescent Plasma Randomized Clinical Trials for Early COVID-19 Treatment - Non-Specific Supplement \$28,900

Joao Teixeira

University of California, San Diego
COVID19- RAMIC Trial \$33,040

COLLEGE OF NURSING

Katherine Zychowski Bufford

National Institute of Environmental Health Sciences
Neurovascular Consequences of Inhaled Uranium Mine-Site Dust Exposure - Continuation \$247,336

Mary Couig

Department of Veterans Affairs
VA Office of Nursing Services IPA \$21,828



Elizabeth Dickson

National Association of School Nurses
COVID-19 Impact on School Nurses and Delivery of School Health \$19,478

Stephen Hernandez

Geneva Foundation
Improving Resiliency in U.S. Air Force Healthcare Personnel \$359,258

Judy Liesveld

Bureau of Health Workforce
Nurse Education, Practice, Quality and Retention - Veteran Nurses in Primary Care - Continuation \$386,601

Janice Martin

City of Albuquerque
GEHM Clinics - Existing and Expansion \$120,000

City of Albuquerque
Caregiver Training Program \$119,576

Carolyn Montoya

Presbyterian Healthcare Services
ANE-NPR Program - Continuation \$101,618

El Pueblo Health Service
El Pueblo Health Services \$71,544

College of Pharmacy

COLLEGE OF PHARMACY

Ludmila Bakhireva

National Institute on Alcohol Abuse and Alcoholism
The Effect of the COVID-19 Pandemic on Alcohol Use and Psycho-Somatic Health in Pregnant and Postpartum Women With Intersecting Vulnerabilities - Supplement \$134,896

National Institute on Alcohol Abuse and Alcoholism
ENRICH-2: Stress-Reactivity and Self-Regulation in Infants With Prenatal Alcohol Exposure - Continuation \$660,723

Barry Bleske

University of Michigan
Genetic Determinants of ACEI Prodrug Activation - Continuation \$16,612

Sarah Blossom

National Institutes of Health
Epigenetic Modulation of CD4 + T Cell Differentiation and Autoimmunity by Trichloroethylene \$270,193

Arkansas Children's Research Institute
COBRE Junior Investigator Mentor \$12,323

Scott Burchiel

National Institutes of Health
Developmental Exposures to Arsenic: Pneumonia, Immunity and Microbiomes \$643,862

Matthew Campen

National Institutes of Health
New Mexico Center for Metals in Biology and Medicine - Continuation \$2,277,209

National Institutes of Health
New Mexico Center for Metals in Biology and Medicine - Specific Supplement \$757,295

National Institutes of Health
Inhalation of Contaminated Mine Waste Dusts as a Route for Systemic Metal Toxicity - Continuation \$470,664

National Institute of Environmental Health Sciences
Mechanisms of Vascular Toxicity From Inhaled Toxicants - Continuation \$324,648

Baylor College of Medicine
Notification of Access to Toxic Effects of Ecigs Following Transition From Conventional Cigarettes - Continuation \$109,523

Melanie Dodd

First Nations Community Healthsource, Inc.
First Nations Community Healthsource, Inc. - Continuation \$33,788

Hospice of New Mexico
Consultant Pharmacist - Hospice of New Mexico - Continuation \$13,151

Esther Erdei

Missouri Breaks Industries Research, Inc.
COVID-19 Consultation Agreement With MBIRI \$2,000

Linda Felton

Department of Veterans Affairs
Formulation and Batch Records for the VA Medical Center in Albuquerque, N.M. \$33,084

Changjian Feng

National Science Foundation
Conformations and Dynamics of Modular Redox Enzymes via Site-Specific 2D Infrared Spectroscopy \$651,450

National Institutes of Health
Defining the Conformational Control of Nitric Oxide Synthases by a Multipronged Approach \$327,056

Bryan Grassel

OptumCare New Mexico
OptumCare Pharmaceutical Services - Continuation \$242,182

Department of Veterans Affairs
Radiopharmaceutical Goods and Services - Continuation \$151,933

Sandia National Laboratories
Sandia Isotope Request Tc99m \$1,400

Pamela Hall

National Institute of Allergy and Infectious Diseases
Vaccine-Mediated Control of Bacterial Virulence Regulation and Infection - Continuation \$383,039

Johnnye Lewis

National Institutes of Health
Understanding Risk Gradients From Environment on Native American Child Health Trajectories: Toxicants, Immunomodulation, Metabolic Syndromes & Metals Exposure - Continuation \$4,249,553

National Institutes of Health
Understanding Risk Gradients From Environment on Native American Child Health Trajectories: Toxicants, Immunomodulation, Metabolic Syndromes, & Metals Exposure - Continuation \$4,242,490

National Institute of Environmental Health Sciences <i>UNM Metal Exposure Toxicity Assessment on Tribal Lands in the Southwest Superfund Research Program - Continuation</i>	\$1,462,535	Pavan Muttil Virtici, LLC <i>Multi-Layered Microneedles for Delivering VLP-Based Vaccines</i>	\$50,000	National Institute on Minority Health and Health Disparities <i>Examining the Variable State and Local COVID-19 Policy Impacts on the Health of Racial, Ethnic and Rural Health Disparity Populations</i>	\$189,376
National Institutes of Health <i>Center for Native American Environmental Health Equity Research - Renewal</i>	\$1,365,205	Lynntech, Inc. <i>An Inhaled Clofazimine Formulation for the Treatment of Tuberculosis - Non-Specific Supplement</i>	\$43,990	National Institute on Minority Health and Health Disparities <i>TREE Center - Diversity Supplement to Promote Diversity in Health-Related Research</i>	\$73,128
National Institutes of Health <i>Supplement to Understanding Risk Gradients From Environment on Native American Child Health Trajectories: Toxicants, Immunomodulation, Metabolic Syndromes, & Metals Exposure - Specific Supplement</i>	\$320,875	Nob Hill Therapeutics, Inc. <i>A Simple and Efficient Outpatient Dry Powder Amphotericin B-Dryneb (Dry Powder Nebulizer) for Treatment of Susceptible and Multidrug-Resistant Aspergillus/Fungal Infections in Cystic Fibrosis, COPD, Asthma, Lung Transplant and Other Pulmonary Diseases</i>	\$30,000	New Mexico Department of Health <i>New Mexico Maternal Child Health Epidemiology Practicum Project - Non-Specific Supplement</i>	\$5,000
Ke Jian (Jim) Liu National Institutes of Health <i>Mutational Signatures of a Combined Environmental Exposure: Arsenic and Ultraviolet Radiation - Continuation</i>	\$510,966	Sara Nozadi Duke University <i>Attentional Mechanisms Underlying of Information Processing in a Sample of Navajo Children - Continuation</i>	\$31,422	Murlynn Lee University of Washington <i>Examining Health and Social Indicators Among Native American Cisgender and Transgender Women Who Engage in Sex Work in an Urban Environment</i>	\$21,600
National Institutes of Health <i>Arsenic, GATA-1 and Hematotoxicity - Continuation</i>	\$340,875	Susan Smolinske New Mexico Department of Health <i>COVID-19 Coronavirus All Hazards Line</i>	\$891,600	Gilead Sciences <i>Examining Sociocultural Influences, Knowledge, and Acceptability of Biomedical HIV Prevention Methods: Native American College Students - Continuation</i>	\$17,705
University of Louisville <i>Particulate Cr(VI) Toxicology in Human Lung Epithelial Cells and Fibroblasts - Continuation</i>	\$40,513	New Mexico Department of Health <i>COVID-19 Coronavirus All Hazards Line - Specific Supplement</i>	\$451,442	Francisco Soto Mas University of Texas Health Center at Tyler <i>Health, Safety and Psychosocial Organic Farming Survey - Continuation</i>	\$94,578
National Institutes of Health <i>The 11th Conference on Metal Toxicity and Carcinogenesis</i>	\$8,000	New Mexico Department of Health <i>COVID-19 Coronavirus All Hazards Line</i>	\$451,046	McKinley County <i>McKinley County Project - Continuation Yr4</i>	\$46,140
Debra MacKenzie National Institutes of Health <i>Center for Native American Environmental Health Equity Research - Renewal - Continuation</i>	\$1,359,847	Health Resources and Services Administration <i>Poison Center Stabilization and Enhancement Program - Continuation</i>	\$133,287	McKinley County <i>McKinley County Project - Continuation Yr3</i>	\$31,640
Duke University <i>Using Silicone Wristbands as Non-Invasive Passive Environmental Monitors to Evaluate Seasonal and Within-Family Correlation for Environmental Exposures. - Continuation</i>	\$1,672	Denver Health and Hospital Authority <i>Researched Abuse, Diversion and Addiction-Related Surveillance System Work Order #16 - Continuation</i>	\$12,500	Bernalillo County <i>Bernalillo County Senior Services Project - Continuation Yr2</i>	\$25,000
Renee-Claude Mercier International Health Management Associates, Inc. <i>Shionogi BMD US Surveillance Program</i>	\$6,000	Texas Tech University <i>Pediatric Environmental Health Specialty Unit Program</i>	\$10,000	Bernalillo County <i>Bernalillo County Senior Services Project - Continuation</i>	\$25,000
Syneos Health <i>Viiv Healthcare Observational Research Study Agreement</i>	\$3,000	American College of Medical Toxicology <i>MOU Toxic North American Snake Bite Registry - Continuation</i>	\$8,165	University of Texas Health Center at Tyler <i>COVID-19 Survey of Organic Farmers</i>	\$10,000
		COLLEGE OF POPULATION HEALTH		Victoria Sanchez Presbyterian Healthcare Services <i>New Mexico Community Voices</i>	\$64,999
		Lisa Cacari-Stone National Institute on Minority Health and Health Disparities <i>TREE Center for Advancing Behavioral Health - Continuation</i>	\$1,390,938	Tammy Thomas University of Texas Health Center at Tyler <i>Grow the Grower Safety & Health Training and Evaluation</i>	\$12,000

Kristine Tollestrup

Tulane University
 ACA - Public Health Training Centers -
 Continuation Year 3 \$34,440

Bernalillo County
 ABC Code Book Project \$5,250

Nina Wallerstein

Patient-Centered Outcomes Research
 Institute
 Engage for Equity Plus: Advancing
 Research Support for Equity-Based
 Partnerships With Institutions, Patients and
 Other Stakeholders \$250,000

National Institute on Aging
 Neighborhoods, Sexual Orientation,
 Race/Ethnicity & Smoking Across the
 Adult Lifespan: A Multilevel Intersectional
 Assessment \$68,660

Columbia University
 An Experimental Investigation Into the
 Impact of Socioeconomic Context on
 Biological Markers of Aging, Health and
 Mortality - Continuation \$20,877

AltaMed Health Services Corporation
 HEAL Through PCOR - Non-Specific
 Supplement \$4,000

SCHOOL OF MEDICINE**Anesthesiology & Critical Care
Medicine****Eugene Koshkin**

Medtronic
 UNM Pain Medicine Fellowship 20-21:
 Medtronic \$15,000

Boston Scientific Corporation
 UNM Pain Medicine Fellowship 20-21:
 Boston Scientific \$5,000

John Rask

Vanderbilt University Medical Center
 Simulation Multicenter Project -
 Continuation \$50,068

Karin Westlund-High

Defense Health Program
 Chronic Pain Relief Therapeutic \$1,298,324

Bessor Pharmaceuticals
 Renalase Reduction of High-Fat
 Pancreatitis Pain \$25,000

**Biochemistry & Molecular
Biology****William Hines**

Lawrence Livermore National Laboratory
 Aliquot Creation and Storage, Creation
 of Medium, Filtration, Bacterial
 Testing \$2,000

**Meilian Liu**

National Institute of Diabetes and Digestive
 and Kidney Diseases
 The Role of Adiponectin in Regulating Type
 2 Innate Lymphoid Cells and Browning of
 Fat - Continuation \$401,470

Vallabh Shah

National Institute on Minority Health and
 Health Disparities
 Standing Strong in Tribal Communities:
 Addressing Elder Falls Disparity \$543,623

Patient-Centered Outcomes Research
 Institute
 COVID-19 HBKC in Native Americans of
 New Mexico \$282,877

Cell Biology & Physiology**Amy Gardiner**

National Institute on Alcohol Abuse and
 Alcoholism
 Mir-150-5p Disrupts Vascular Development
 in the Brain During Prenatal Alcohol
 Exposure \$37,030

Laura Gonzalez-Bosc

National Heart, Lung, and Blood Institute
 Novel Collagen V-Reactive Natural Th17
 Cells in Hypoxic Pulmonary
 Hypertension \$378,750

Nikki Jernigan

National Institutes of Health
 Vascular Smooth Muscle Function in
 Pulmonary Hypertension -
 Progrep 2021 \$378,750

Sara G.M. Piccirillo

The Ivy Foundation
 Targeting Inflammatory Cells in
 Glioblastoma Residual Disease \$600,000

Thomas Resta

National Institutes of Health
 Minority Institutional Research Training
 Program (T32) \$433,727

Comprehensive Cancer Center**Sarah Adams**

Army Medical Research Acquisition Activity
 Impact of Estrogen Signaling on Tumor
 Immunity and Response to Immune Therapy
 in Ovarian Cancer \$378,750

National Cancer Institute
 Mechanisms of Selective Therapeutic
 Synergy of PARP-Inhibition and CTLA4
 Blockade Engaged by Interferon-
 Gamma in the Ovarian Tumor
 Microenvironment \$348,835

Prajakta Adsul

NRG Oncology
 Exploring the Implementation Context of
 Community Oncology Practices for Lifestyle
 Interventions \$34,618

New Mexico Department of Health
 Cancer Prevention and Control Program
 for New Mexico \$10,000

New Mexico Department of Health
 Cancer Prevention and Control Program
 for N.M. \$10,000

Leslie Andritsos

Oregon Health & Science University
 SWOG NCORP Research Base \$30,000

Oregon Health & Science University
 SWOG Network Operations Center of the
 NCTN \$30,000



Eric Bartee

National Institute of Allergy and Infectious Diseases
Rationally Combining Oncolytic Virotherapy and TIM3 Blockade - Non-Specific Supplement \$155,796

National Cancer Institute
Treatment of Multiple Myeloma Using Oncolytic Myxoma Virus - Non-Specific Supplement \$134,861

Marianne Berwick

National Cancer Institute
Sex Differences in Methylome Alterations and Mutational Burden in Early Stage Melanoma \$112,686

National Cancer Institute
Sex Differences in Methylome Alterations and Mutational Burden in Early Stage Melanoma \$95,969

Cynthia Blair

National Cancer Institute
Improving Physical Functioning in Older Cancer Survivors Through Light-Intensity Physical Activity \$154,404

Ursa Brown-Glaberman

New Mexico Cancer Care Alliance
Clinical Trial Phase 3 \$117,320

New Mexico Cancer Care Alliance
Clinical Trial Phase 3 \$113,480

New Mexico Cancer Care Alliance
Clinical Trial Phase 2 \$113,480

New Mexico Cancer Care Alliance
DARE \$103,880

Linda Cook

National Cancer Institute
A Population-Based Study of Ketorolac and Ovarian Cancer Survival - Continuation \$354,794

Zoneddy Dayao

New Mexico Department of Health
Development and Delivery of Cancer Survivorship Cancer Plans \$9,520

American Cancer Society
Transportation Plan for UNM Comprehensive Cancer Center \$5,000

Hakim Djaballah

Leidos, Inc
BASE Project/MGMT: NCI Experimental Therapeutics Chemical Biology Consortium - Continuation \$75,767

Dolores Guest

Consulate of Mexico in Albuquerque
Ventanilla De Salud 2020 \$36,000

Yan Guo

Indiana University
The Role of LMO2 in the Pathogenesis of T-cell Leukemia \$10,049

Richard Harvey

National Cancer Institute
Integration of Gene Expression Patterns, Fusions, Mutations, Cytogenetics and Other Clinical Variables for Subtyping Leukemias and Targeting Therapies \$154,500

University of Chicago

Phase 1 Trial of Ruxolitinib in Combination With a Pediatric Based-Regimen for Adolescents and Young Adults With Ph-Like Acute Lymphoblastic Leukemia \$33,892

Neda Hashemi

New Mexico Cancer Care Alliance
Clinical Trial Phase 1/2 \$113,480

Miria Kano

University of Texas MD Anderson Cancer Center
Curriculum Development for SGM Cancer-MDACC \$18,301

Ichiko Kinjo

Ovarian Cancer Research Alliance
A Novel Mechanism of the Immunomodulatory \$450,000

Atul Kumar

New Mexico Cancer Care Alliance
Clinical Trial Phase 2 \$116,680

New Mexico Cancer Care Alliance
Clinical Trial Phase 2 \$116,680

New Mexico Cancer Care Alliance
Clinical Trial Phase 1/2 \$116,680

New Mexico Cancer Care Alliance
Clinical Trial Phase 3: REVIVAL (AP-recAP-AKI-03-01) \$116,680

Peng Mao

National Institute of Environmental Health Sciences
TC-NER in the Repair and Mutagenesis of DNA Alkylation Damage \$56,757

Dario Marchetti

National Cancer Institute
Mechanisms of Melanoma Brain Metastasis by CTCs Isolated From Patients' Blood - Supplement \$199,762

National Cancer Institute
Functional Characterization of Brain-Colonizing Breast Cancer CTC Subsets \$166,912

National Cancer Institute
Mechanisms of Melanoma Brain Metastasis by CTCs Isolated From Patients' Blood \$156,143

National Cancer Institute
Functional Characterization of Brain-Colonizing Breast Cancer CTC Subsets - Continuation \$30,114

National Cancer Institute
Mechanisms of Melanoma Brain Metastasis by CTCs Isolated From Patients' Blood - Non-Specific Supplement \$18,319

Jean McDougall

Wake Forest University
Food Insecurity in Oncology \$61,496

Rutgers, The State University of New Jersey
Comparative Effectiveness of Interventions to Increase Guideline-Based Genetic Counseling in Ethnically and Geographically Diverse Cancer Survivors \$23,364

Shiraz Mishra

National Institutes of Health
Enhancing Prevention Pathways Towards Tribal Colorectal Health \$551,340

Carolyn Muller National Cancer Institute NCORP - Continuation	\$1,767,135	Lawrence Berkeley National Laboratory <i>Structural Cell Biology & Physiology of DNA Repair Machines Project - Continuation</i>	\$66,600	Brigham and Women's Hospital <i>Biomarker, Imaging and Quality of Life Studies Funding Program A041501</i>	\$86,367
New Mexico Cancer Care Alliance GOG 3038	\$116,832	Cosette Wheeler Hologic <i>HPV Test Utilization and Outcomes: A Study From the New Mexico HPV Pap Registry</i>	\$154,000	Brigham and Women's Hospital <i>Biomarker, Imaging and Quality of Life Studies Funding Program</i>	\$86,269
New Mexico Cancer Care Alliance <i>Clinical Trial Phase 3</i>	\$113,480	Albuquerque Area Indian Health Board, Inc. <i>Characterizing Disparities and Elucidating Opportunities Across the Cervical Cancer Continuum Among Native American Women - Continuation</i>	\$75,750	Cecilia Arana Yi New Mexico Cancer Care Alliance <i>Clinical Trial Agreement - Phase 1 - Non-Specific Supplement</i>	\$54,025
Scott Ness National Institutes of Health <i>Mutations and Target Genes in Adenoid Cystic Carcinoma</i>	\$359,813	Charles Wiggins National Cancer Institute <i>Surveillance Epidemiology and End Results Program - Continuation</i>	\$3,065,995	Dental Medicine	
Adenoid Cystic Carcinoma Research Foundation <i>ACCRF Data Analysis</i>	\$24,762	National Cancer Institute <i>Pediatric Cancer Whole Slide Imaging</i>	\$74,932	Gary Cuttrell New Mexico Higher Education Department <i>Train Dentists to Treat Pediatric and Developmentally Delayed Patients</i>	\$900,000
Michelle Ozbun American Cancer Society <i>American Cancer Society Institutional Research Grant - Diversity in Cancer Research Internship Grant Supplement</i>	\$22,000	National Cancer Institute <i>SEER Patterns of Care 2021</i>	\$73,143	New Mexico Department of Health <i>Basic Oral Health Services</i>	\$105,000
Eric Prossnitz National Cancer Institute <i>Molecular Mechanisms and Applications of Novel ER/GPER-Selective Ligands</i>	\$320,000	Westat <i>Health Information National Trends Survey</i>	\$17,990	New Mexico Department of Health <i>Basic Oral Health Supplement</i>	\$20,045
National Cancer Institute <i>G Protein-Coupled Estrogen Receptor GPER and Breast Carcinogenesis</i>	\$158,942	Cheryl Willman National Cancer Institute <i>Engagement of American Indians of Southwestern Tribal Nations in Cancer Genome Sequencing</i>	\$3,701,064	Dermatology	
GPHER G-1 Development Group LLC <i>Development of Innovative Diabetes Therapeutics Via GPER Targeting</i>	\$132,987	Memorial Medical Center <i>Physician Services</i>	\$728,638	Emily Altman Parexel International <i>Be Heard</i>	\$79,211
Teresa Rutledge Foundation for Women's Cancer <i>Critical Decisions: Decision-Making at Time of Clinical Trial Consideration</i>	\$75,000	Children's Hospital of Philadelphia <i>Clinical Trial Agreement - Non-Specific Supplement</i>	\$522,432	John Durkin University of Pennsylvania <i>A Pragmatic Trial of Home- vs. Office-Based Narrow Band Ultraviolet B Phototherapy for the Treatment of Psoriasis (LITE Study)</i>	\$176,035
Wake Forest University <i>Research Services Agreement - NCORP Research Base</i>	\$700	National Cancer Institute <i>CCSG: Administrative Supplement to Strengthen the Research, Training and Outreach Capacity of the Geographic Management of Cancer Health Disparities Program</i>	\$250,000	Pfizer, Inc. <i>B7981027-Pfizer</i>	\$75,534
Wake Forest University <i>Wake Forest NCORP Research Base</i>	\$700	Children's Hospital of Philadelphia <i>Phase 3 Randomized Trial of Inotuzumab Ozogamicin for Newly Diagnosed High-Risk B-ALL; Risk-Adapted Post-Induction Therapy for High-Risk B-ALL, Mixed Phenotype Acute Leukemia and Disseminated B-Lly (1732 Study)</i>	\$236,292	ECHO Institute	
Alan Tomkinson National Institute of General Medical Sciences <i>Cellular Functions of Eukaryotic DNA Ligases</i>	\$369,502	National Cancer Institute <i>CCSG: Administrative Supplement to Strengthen NCI-Supported Community Outreach Capacity Through Community Health Educators of the National Outreach Network</i>	\$115,000	Sanjeev Arora Agency for Healthcare Research and Quality <i>National Nursing Home COVID-19 Safety ECHO Program</i>	\$237,224,446
Lovelace Biomedical & Environmental Research Institute <i>DNA Repair Capacity Assays for Lung Disease Risk Assessment</i>	\$96,089			Health Resources and Services Administration <i>South Central AIDS Education and Training Center Program - Continuation</i>	\$3,159,428
Lovelace Biomedical & Environmental Research Institute <i>DNA Repair Capacity Assays for Lung Disease Risk Assessment (Supplement Award)</i>	\$74,165			Health Resources and Services Administration <i>South Central AIDS Education and Training Center Program - Year 3</i>	\$3,132,205

Valhalla Charitable Foundation <i>The Audacious COVID Project - Valhalla Charitable Foundation</i>	\$2,000,000	JHPIEGO Corporation <i>ECHO Support for Building Health Worker Capacity Through the Urban Health Initiative Program in Afghanistan</i>	\$194,049	Miners Colfax Medical Center <i>Technical Support for Miner's Wellness</i>	\$65,002
Merck Company Foundation <i>COVID-19 Response in Kenya, South Africa and Uganda</i>	\$1,500,000	New Mexico Corrections Department <i>N.M. Corrections Department Hepatitis C - Continuation</i>	\$190,644	University of California, Davis <i>ECHO Support for Multinational Health Education Networks in Africa and Southeast Asia - Non-Specific Supplement</i>	\$49,521
Silicon Valley Community Foundation <i>The Audacious COVID Project</i>	\$1,000,000	University of California, Davis <i>ECHO Support for Multinational Health Education Networks in Africa and Southeast Asia - Continuation</i>	\$151,018	Stanford University <i>Stanford University T1d Support and Technical Assistance - Continuation</i>	\$43,874
Agency for Healthcare Research and Quality <i>COVID-19 Preparedness/Response in Nursing Homes PHASE II - Continuation</i>	\$737,037	Robert Wood Johnson Foundation <i>ECHO-RWJF Partnership for Amplifying COVID-19 Response</i>	\$150,000	Elizabeth Glaser Pediatric AIDS Foundation <i>EGPAF/ECHO Cholera Surveillance</i>	\$34,955
HHS Assistant Secretary for Preparedness and Response <i>ECHO ASPR COVID-19 Clinical Rounds Program</i>	\$500,000	Agency for Healthcare Research and Quality <i>COVID-19 Preparedness/Response in Nursing Homes</i>	\$135,000	USAAFRICOM/USNAVAF <i>USAAFRICOM/USNAVAF ECHO Malaria Conference</i>	\$32,771
New Mexico Corrections Department <i>N.M. Department of Corrections Hepatitis C - Continuation</i>	\$500,000	Chronic Liver Disease Foundation <i>Chronic Liver Disease Foundation and ECHO Partnership</i>	\$114,000	Clinton Health Access Initiative <i>ECHO Support for Global Webinars to Improve HIV Care in the COVID-19 Era</i>	\$30,000
HHS Assistant Secretary for Preparedness and Response <i>ECHO-ASPR COVID-19 Clinical Rounds Program - Specific Supplement</i>	\$500,000	Elizabeth Glaser Pediatric AIDS Foundation <i>ECHO/EGPAF Partnership for Infection Prevention Control</i>	\$111,000	World Health Organization <i>ECHO Partnership With the World Health Organization for Infection Prevention and Control Webinar Series</i>	\$30,000
Indian Health Service <i>IHS and ECHO Institute Partnership to Reflect Impact of COVID-19 Programs</i>	\$499,700	JHPIEGO Corporation <i>JHPIEGO Healthcare Workforce 2021 (HW21) - Continuation</i>	\$105,000	The Task Force for Global Health <i>ECHO/TEPHINET Partnership for Infection Prevention Control</i>	\$29,250
Health Resources and Services Administration <i>South Central AIDS Education and Training Center Program - Spec Supplement Yr 2</i>	\$395,061	Open Road Alliance <i>ECHO for Education: Social Emotional Learning</i>	\$100,000	Penn State University <i>ECHO-Penn State Partnership for Geriatric Infection Control RCT</i>	\$24,687
Genentech Foundation <i>ILD Collaborative: Interstitial Lung Disease ECHO Program</i>	\$308,987	John D. & Catherine T. MacArthur Foundation <i>Planning Grant for MacArthur Foundation 100&Change Competition</i>	\$100,000	World Health Organization <i>ECHO Support for WHO Infection Prevention and Control Global Webinar Series</i>	\$24,135
New Mexico Corrections Department <i>Re-Entry ECHO Program: Supporting PEP Graduates As Peer Support Workers</i>	\$275,000	New Mexico Public Education Department <i>ECHO-PED Partnership for Social Emotional Learning</i>	\$100,000	New Mexico Public Education Department <i>ECHO for Community Schools Program</i>	\$22,000
National Center for Chronic Disease Prevention and Health Promotion <i>ECHO Partnership for Development of Virtual Communities of Practice for CDC Country Leadership</i>	\$224,389	New Mexico Corrections Department <i>Re-Entry ECHO Program: Supporting PEP Graduates As Peer Support Workers - Specific Supplement</i>	\$90,000	U.S. Air Force Europe & Air Forces Africa <i>ECHO Partnership With USAFE-AFAFRICA Conference Support</i>	\$20,694
Northwest Portland Area Indian Health Board <i>Indian Health Service TeleECHO Clinic Support - Continuation</i>	\$223,000	Health Resources and Services Administration <i>South Central AIDS Education and Training Center Program - Specific Supplement</i>	\$84,376	World Health Organization <i>WHO 15 Video Session for Access to COVID-19 Tools</i>	\$18,000
Health Resources and Services Administration <i>SC AETC Collaboration With Bureau of Primary Health Care</i>	\$200,000	Northwest Regional Education Cooperative <i>Developing an Integrated Model for Infant and Toddler Mental Health</i>	\$75,000	Elizabeth Glaser Pediatric AIDS Foundation <i>ECHO/EGPAF IPC Global Webinar Series Brazil (TO3)</i>	\$15,000
		Elizabeth Glaser Pediatric AIDS Foundation <i>ECHO/EGPAF Partnership Haiti Lab Strengthening</i>	\$67,125	Elizabeth Glaser Pediatric AIDS Foundation <i>ECHO-EGPAF Partnership for Infection Prevention Control - Specific Supplement</i>	\$11,751
				CDC Foundation <i>Cryptococcal Screening and Treatment for National Implementation</i>	\$10,621



Medevac Foundation
 COVID-19 Exposure in Air Medical
 Transport \$3,425

Quick Draw
 Medical Directorship -
 Continuation \$880

Cameron Crandall
 Yale University
 CTN-0099: Emergency Department-
 Initiated Buprenorphine VALIDaTION
 Network Trial \$169,263

Syneos Health
 Intervexion/METH-OD / M200c-2101 / a
 Phase 2a Study CTA \$96,182

Yale University
 CTN-0099: Emergency Department-Initiated
 Buprenorphine Validation Network Trial -
 Supplement \$71,878

U.S. Department of Justice
 U.S. Attorney Expert Witness Contract-
 Crandall \$8,076

Joy Crook
 New Mexico Department of Health
 FY21 N.M. DOH Statewide EMS -
 Continuation \$50,000

Jon Kenneth Femling
 I-Mab Biopharma Co. Ltd.
 Safety and Efficacy of TJ003234 in Subjects
 With Severe COVID-19 \$336,955

Olive View Medical Center - UCLA
 EMERGENCY IDnet:Emergency Department
 Sentinel Network for Surveillance of
 Emerging Infections - Continuation \$11,363

Light AI, Inc.
 Post-Infection Strepic Sub Study \$10,920

Lilly USA, LLC
 Bamlanivimab- COVID-19 \$10,790

Abbott Diagnostics
 ABBOTT ID Now 2.0 \$5,000

TriCore Reference Laboratories
 Task Order #15 for Techlab, Inc. \$4,705

TriCore Reference Laboratories
 Task Order #16 for Raytheon BBN
 Technologies \$3,200

Dorothy Habrat
 Bernalillo County Fire Department
 Medical Director Services -
 Continuation \$63,053

Bernalillo County Fire Department
 Medical Directorship FY22 Bernalillo
 County Fire \$63,053

PNM Resources Foundation
 COVID-PNM Resources Community Support
 for COVID-19 \$10,000

Fort Defiance Indian Hospital
 ECHO Support for Navajo American Rural
 Emergency Medical Conference \$8,867

World Health Organization
 ECHO Support for WHO Private Sector
 Meetings \$8,000

Montanas del Norte AHEC
 ECHO-AHEC Partnership for HRSA COVID
 Cares Act \$5,664

World Health Organization
 WHO 15 Video Session for Access to
 COVID-19 Tools - Continuation \$2,875

Emergency Medicine

Danielle Albright
 New Mexico Crime Victims Reparation
 Commission
 Coordination of Domestic Violence Death
 Review \$140,000

New Mexico Crime Victims Reparation
 Commission
 Coordination of Domestic Violence Death
 Review \$140,000

New Mexico Crime Victim Reparations
 Commission
 Senate Memorial 50 \$8,542

Justin Baca
 University of Arizona
 Clinical Trial of COVID-19 Convalescent
 Plasma in Outpatients \$62,143

Laura Banks
 New Mexico Transportation Department
 Pedestrian Safety Initiative \$300,000

Darren Braude
 Department of the Air Force
 UNM Educational Service Agreement FY20 -
 Non-Specific Supplement \$495,480

Department of the Air Force
 UNM Educational Service Agreement FY20 -
 Non-Specific Supplement \$495,480

Gypsum Medical Associates of New Mexico,
 P.C.
 Medical Directorship/Professional Services -
 Continuation \$52,080

Department of the Air Force
 UNM Educational Service Agreement FY20 -
 Non-Specific Supplement \$43,200

City of Rio Rancho
 Medical Director Services FY22 City of
 Rio Rancho \$39,060

City of Rio Rancho
 Medical Director Services -
 Continuation \$37,200

Wilderness Medics, Inc.
 Professional Services -
 Continuation \$25,000

K&I Field Services
 Medical Direction and Care -
 Continuation \$25,000

Wilderness Medics, Inc.
 Professional Services (W/BAA) \$25,000

City of Rio Rancho
 Emergency Medicine Services \$11,025

City of Rio Rancho
 Emergency Medicine Services \$10,500

National Park Service
 Zion National Park BLS Refresher -
 Continuation \$7,250

Albuquerque Sexual Assault Nurse Examiner <i>Medical Direction</i>	\$9,900	Chelsea White Navajo Nation <i>Medical Direction Services for the Navajo Nation</i>	\$249,998	New Mexico Department of Health <i>Transdisciplinary Evaluation and Support Clinic - A1 - Specific Supplement</i>	\$29,013
Andrew Harrell New Mexico Public Safety Department <i>Professional Services TEMS - Continuation</i>	\$116,000	Pueblo of Laguna Fire Protection Program <i>Laguna Pueblo Medical Direction - Continuation</i>	\$80,000	Venice Ceballos Pacific Institute for Research & Evaluation <i>Youth Homelessness/Housing Instability: Mixed-Method Needs Assessment</i>	\$45,000
National Park Service <i>Grand Canyon Medical Direction - Continuation 2</i>	\$36,715	Ramah Navajo School Board, Inc., dba Pine Hill Health Center <i>Medical Direction for the Ramah Navajo School Board - Continuation</i>	\$45,000	Amy Clithero Lakehead University <i>The Transformative Potential of Socially Accountable Education</i>	\$8,000
National Park Service <i>Grand Canyon Medical Direction - Continuation</i>	\$36,355	Pueblo of Acoma EMS <i>Medical Direction for the Pueblo of Acoma</i>	\$36,000	Arthur Kaufman City of Albuquerque <i>Intensive Case Mgt FY21</i>	\$750,000
The Boeing Company <i>Physician Services</i>	\$25,000	Cibola County <i>Medical Directorship - Continuation</i>	\$12,000	HHS Office of the Assistant Secretary for Health <i>Increasing EITC in New Mexico</i>	\$450,000
Bosque School <i>Medical Director Services</i>	\$6,492	National Park Service <i>Med Dir El Malpais/El Morro - Continuation</i>	\$4,500	Presbyterian Healthcare Services <i>Presbyterian Healthcare Contract for Services - Continuation - FY21</i>	\$193,055
Jonathan Marinaro Kindred Hospital (Transitional Hospital Corporation of N.M.) <i>Medical Director Services - Continuation</i>	\$25,000	Jenna White Sandoval County <i>Medical Director Services</i>	\$54,000	New Mexico Department of Health <i>New Mexico Immunization Coalition FY22</i>	\$175,658
Steven McLaughlin Navajo Area Indian Health Service <i>GIMC Physician Services</i>	\$677,939	The Pueblo of Santo Domingo <i>Medical Direction for the Pueblo of Santo Domingo</i>	\$35,475	Real Time Solutions, Inc. <i>COVID-19 Vaccine Call Registration Initiative Support Services</i>	\$162,211
State of New Mexico <i>EMT Training FY22 N.M.</i>	\$139,900	Sandoval County Regional Emergency Communications Center <i>Medical Director Services - Continuation</i>	\$28,368	City of Albuquerque <i>Medical Director Services</i>	\$160,637
A. Robb McLean Fort Defiance Indian Hospital <i>Care Coordination</i>	\$125,000	Presbyterian Medical Services <i>Medical Director Services</i>	\$23,760	City of Albuquerque <i>Medical Director Services</i>	\$57,147
Aaron Reilly High Altitude Athletics Club <i>Medical Directorship</i>	\$2,000	Pueblo of Jemez <i>FY21 Pueblo of Jemez Medical Direction</i>	\$20,000	City of Albuquerque <i>Medical Director Services</i>	\$36,007
Amber Rollstin Specialty Hospital of Albuquerque <i>Physician Services</i>	\$25,000	Town of Cochiti Lake <i>Medical Director Services</i>	\$7,500	Jill Klar First Choice Community Healthcare <i>Professional Services - Continuation</i>	\$50,000
Robert Sapien Office for the Advancement of Telehealth <i>Child Ready Rural Emergency Support of Trauma</i>	\$300,000	Family & Community Medicine		Sarah Lathrop New Mexico Department of Health <i>COVID N.M. Emerging Infections Program - FY22</i>	\$835,341
Maternal and Child Health Bureau <i>N.M. EMS for Children Program - Continuation</i>	\$130,000	Melanie Baca Society of Family Planning <i>Changemakers in Family Planning</i>	\$71,978	New Mexico Department of Health <i>N.M. Emerging Infections Program - Continuation - FY21</i>	\$701,780
The Mind Research Network <i>The Impact of Diffuse Mild Brain Injury on Clinical Outcomes in Children - Continuation</i>	\$61,601	Antoinette Benton New Mexico Department of Health <i>FY22 Transdisciplinary Evaluation and Support Clinic</i>	\$1,236,782	New Mexico Department of Health <i>FY21 N.M. Emerging Infections Program - Specific Supplement A2</i>	\$530,011
Isaac Tawil DCI Donor Services <i>Medical Director Services</i>	\$19,078	New Mexico Department of Health <i>Transdisciplinary Evaluation and Support Clinic W/ BAA - FY21 - Continuation</i>	\$1,207,770	New Mexico Department of Health <i>FY21 N.M. Emerging Infections Program COVID - Continuation</i>	\$61,906
Brandon Warrick N.M. Medical Legal Review, Inc. <i>New Mexico Medical Legal Review</i>	\$3,000	Falling Colors Corporation <i>FY22 Pre-Administration Screening and Resident Review - Continuation</i>	\$194,569	Melissa Martinez Mora Valley Community Health Services, Inc. <i>Locum Tenens Services</i>	\$25,000

Mora Valley Community Health Services, Inc.
Locum Tenens Services \$25,000

Janet Page-Reeves

National Institute on Minority Health and Health Disparities
TERTULIAS: Addressing Social Isolation to Reduce Depression Among Female Mexican Immigrants - Continuation YR3 \$520,027

Patient-Centered Outcomes Research Institute
ACA-ECM-PCORI: Diabetes Cultural Competence Study - Supplement \$2,373

Nancy Pandhi

Department of Veterans Affairs
Gulf War Code Book, Module Development, Recruitment \$15,600

Laura Parajon

Association of American Medical Colleges
Nurturing Experiences for Tomorrow's Community Leaders Award \$10,000

Tassy Parker

University of Colorado Denver
Collaborative Hubs to Reduce the Burden of Suicide Among AI & AN Youth - FY21 - Continuation \$191,192

University of Colorado Health Sciences Center
HEAL Initiative: Social Network Analyses to Reduce American Indian and Alaska Native Opioid Use Disorder and Related Risks for Suicide and Mental Health Disorders \$110,363

University of Colorado Health Sciences Center
Center for American Indian and Alaska Native Health Disparities - FY2 - Continuation \$30,300

Washington State University
Community Organizations for Natives: COVID-19 Epidemiology, Research, Testing and Services \$29,755

University of Colorado Denver
NIDDK-Funded Center for American Indian and Alaska Native Diabetes Translation Research - FY21 - Continuation \$18,938

International Association for Indigenous Aging
A Collaborative Approach to the Healthy Brain Initiative's Road Map for Indian Country: Honoring Sovereignty, Culture, Diversity and Tradition \$3,000

Jennifer Phillips

New Mexico Cancer Care Alliance
Acupuncture Services FY22 N.M. CCA \$25,000

David Rakel
Bernalillo County
Physician Services \$254,201

First Nations Community Healthsource, Inc.
Physician Services With Obstetrics \$36,000

Presbyterian Medical Services
Professional Services-Continuation \$25,000

Robert Rhyne

U.S. Department of State
Adaptive Health Services Training for Rural Chinese Village Doctors in the Loess Plateau Gansu Province \$149,827

Valerie Romero-Leggott

Bureau of Health Workforce
National HCOP Academies - Continuation \$663,560

Helene B Silverblatt

Bureau of Health Workforce
Area Health Education Centers Program - Continuation \$444,705

Bureau of Health Workforce
COVID Area Health Education Centers Program \$95,455

Center for Health Innovation
Contract for Services \$5,000

Andrew Sussman

National Institutes of Health
Women in Survivorship Healthcare: Implementation of a Nurse Navigation Model for Medically Underserved Breast and Gynecologic Cancer Survivors Using Project ECHO \$197,708

Daniel Waldman

Bureau of Health Workforce
Residency Training in Primary Care (PCTE-RTPC) Program - FY22 \$499,579

New Mexico Primary Care Training Consortium
N.M. Primary Care Training Consortium \$56,048

Laura Wylie

Bureau of Health Workforce
Physician Assistant Training in Primary Care \$299,997

Internal Medicine

Christos Argyropoulos

Dialysis Clinic, Inc.
Kidney: To Take or Not to Take? - Continuation \$118,414

University Of Pennsylvania
Transformative Research in Diabetic Nephropathy - Continuation \$12,800

Alkahest Inc.
Alkahest Consulting Agreement \$2,500

Steven Bradfute

Defense Threat Reduction Agency
Long Non-Coding RNAs in Venezuelan Equine Encephalitis Virus Infection \$499,350

Albert Einstein College of Medicine
Prometheus: A Platform for Rapid Development of Immunotherapeutics and Immunoprophylactics Against Emerging Viral Threats - Y3 \$316,000

Los Alamos National Laboratory
Immunogenicity of Delayed Antigen Release Systems - FY22 \$125,000

University of California, Irvine
Defining Molecular Mechanisms of Combination Adjuvants: A Systems Immunology Transcriptomics and Imaging Approach \$72,803



Los Alamos National Laboratory
*Immunogenicity of Delayed Antigen Release
 Systems - Non-Specific Supplement* \$40,000

University of Utah
*COVID-Broad Spectrum Coronavirus
 Therapeutics* \$22,773

Sandia National Laboratories
*Photocatalytic Material Surfaces for SARS-
 CoV-2 Virus Inactivation* \$9,999

Kelly Chong

Dialysis Clinic, Inc.
*Risk Factors of 30-Day Re-Hospitalization
 Among Patient Receiving Inpatient Dialysis:
 Towards Inpatient Care Quality
 Improvement - Continuation* \$219,585

Osman Dokmeci

AstraZeneca Pharmaceuticals, LP
*D3253c00001: A Study to Evaluate the
 Efficacy and Safety of Benralizumab
 Compared to Mepolizumab in the Treatment
 of Eosinophilic Granulomatosis in Polyangiitis
 in Patient Receiving Standard
 of Care Treatment - Y2* \$51,760

Michelle Harkins

Bellerophon Pulse Technologies
COVID19: PULSE-CVD19-001 \$320,000

Cystic Fibrosis Foundation
*Cystic Fibrosis Care Center Program -
 Continuation* \$89,045

Michelle Iandiorio

Health Resources and Services
 Administration
*Comprehensive HIV Early Intervention
 Services (Ryan White Part C) -
 FY21-22* \$718,561

Health Resources and Services
 Administration
*Ryan White HIV/AIDS Program
 Part D* \$492,914

Ashish Kataria

Transplant Genomics, Inc.
TRULO Study \$140,800

Denece Kesler

Bureau of Health Workforce
*Preventive Medicine Residency Program -
 FY22* \$399,984

Johns Hopkins Bloomberg School of Public
 Health
*Development of a Medical Screening for
 Former Sandia and LANL Workers -
 Renewal* \$5,000

Olga Kovbasnjuk

University of Maryland, Baltimore County
*Pathogenesis of E. coli and Shigella
 Infections in Human Enteroid Models -
 Continuation Y5* \$204,139



Baylor College of Medicine
*Mediators of Intestinal Barrier Dysfunction in
 Inflammatory Bowel Disease - Y2* \$94,688

University of Washington
*A Microphysiological System for Kidney
 Disease Modeling and Drug Efficacy Testing
 - Continuation FY21* \$34,845

TUFTS Medical Center
*Effect of Shiga Toxin, OMVs and Innate
 Immune Cells on Epithelial Integrity of
 Human Colonoids During EHEC Infection -
 FY22* \$11,041

Tufts Medical Center
*Effect of Shiga Toxin, OMVs and Innate
 Immune Cells on Epithelial Integrity of
 Human Colonoids During EHEC Infection*
 \$10,935

Jenny Mao

Department of Veterans Affairs
IPA - Franco Nitta \$83,663

Lana Melendres-Groves

Altavant Sciences, Inc.
*Clinical Trial Phase 2b: ELEVATE 2
 (RVT-1201-2002)* \$405,000

Covance, Inc.
*Clinical Trial Phase 2: GB002 in
 Adult Subjects With PAH
 (GB002-2101)* \$288,000

Merck, Sharp & Dohme, Inc.
*Clinical Trial Phase 2/3: MK-5475-007-
 0028* \$255,360

Janssen Research & Development, LLC
*AC-065B302: Study to Assess the Efficacy
 and Safety of Selexipag as an Add-On to
 Standard of Care Therapy in Subjects With
 Inoperable or Persistent/Recurrent After
 Surgical Treatment Chronic Thromboembolic
 Pulmonary Hypertension* \$71,680

Gregory Mertz

Merck, Sharp & Dohme, Inc.
*COVID19: Clinical Trial Phase 2/3:
 MK4482-002* \$401,242

Merck, Sharp & Dohme, Inc.
*COVID19: Clinical Trial Phase 2/3: MK4482-
 002 - Non-Specific Supplement* \$16,796

Nathan Nielsen

Covance, Inc.
*Clinical Trial Phase 3: REVIVAL (AP-recAP-
 AKI-03-01)* \$248,402

Tudor Oprea

National Institutes of Health
IDG KMC - Y4 Continuation \$1,037,175

National Institutes of Health
*Illuminating the Druggable Genome Data
 Coordinating Center - Engagement Plan
 With the CFDE* \$447,013

East Carolina University Brody School of
 Medicine
*Ligand Specificity in Human Glucose
 Transporters GLUT1-5 and
 GLUT9 - Y3* \$68,425

National Institutes of Health
IDG KMC - Admin Supplement \$34,327

Kimberly Page

The RAND Corporation
*Improving Access and Treatment for Co-
 Occurring Opioid Use Disorders and Mental
 Illness Disorders - Y2* \$1,127,404

The RAND Corporation
CLARO - Supplement \$1,074,568

National Institute on Drug Abuse
*New Mexico Clinical Trials Node: Clinical
 Research and Practice to Address
 Substance Use in Diverse, Rural and
 Underserved Populations - Y3* \$735,149

Fundação Bahiana de Infectologia CODE \$667,032	University of South Florida Type 1 Diabetes Trialnet - Y20-21 \$250	Rediscovery Life Sciences AKI LLC Clinical Trial Phase 2: RLS003-02-001 \$106,409
Cedars-Sinai Medical Center Collaborative Care Teams for Hospitalized Patients With Opioid Use Disorders: Translating Evidence Into Practice \$281,037	National Institute of Diabetes and Digestive and Kidney Diseases Diabetes Prevention Program (DPPOS)- Phase 3 - FY21-22 \$1	Elaine Thomas New Mexico Department of Health Sexually Transmitted Disease Clinical Services W/ BAA - Continuation Y3 \$40,512
Prisma Health - Upstate HERO Y6 \$168,091	Melissa Schiff New Mexico Perinatal Collaborative N.M. PC-AIM Data Project \$23,813	Mark Unruh Santo Domingo Health Center Professional Services Agreement - Nephrology Services - FY21-22 \$252,300
National Institute on Drug Abuse COVID Southwest CTN Supplement \$148,594	Saeed Kamran Shaffi Novartis Pharmaceuticals Corporation Clinical Trial Phase 3: APPLAUSE (LNP023A2301) \$217,176	Albuquerque Area Indian Health Service Nephrology and Rheumatology IHS Specialty Services - Continuation \$232,339
National Institute on Drug Abuse COVID SW CTN Supplement Y2 \$145,109	Manoocher Soleimani Harvard Medical School Wood Smoke and Chronic Mucous Secretion \$90,900	University of Pittsburgh Technology-Assisted Stepped Collaborative Care Intervention to Improve Patient-Centered Outcomes in Hemodialysis Patients - Continuation Y4 \$214,333
Vernon Pankratz Dialysis Clinic, Inc. Professional Services Agreement - Biostatistician Services - Continuation 2020-2021 \$52,606	Veterans Affairs Medical Center IPA - Brooks \$60,148	University of Washington Treatment Options for Insomnia for ESRD - Y3 \$141,824
Dialysis Clinic, Inc. Professional Services Agreement - Biostatistician Services - Continuation 2021-2022 \$26,303	Department of Veterans Affairs IPA - Zahedi - FY22 \$45,459	Boston University Medical Center Improving Medical Decision Making for Older Patients With End Stage Renal Disease \$123,457
Gulshan Parasher AbbVie M20-259 \$1,659,452	Department of Veterans Affairs IPA - Barone - FY22 \$38,431	University of Washington Randomized ESRD Trial Comparing CBT Alone Versus With Buprenorphine (RECOVER) - FY20-21 \$116,160
Douglas Perkins National Institute of Allergy and Infectious Diseases Defining the Inflammation and Immunity Transcriptome in Severe Malarial Anemia for Immunotherapeutic Discovery-Y4 \$707,737	Akshay Sood National Institute of General Medical Sciences COVID: Longitudinal SARS-CoV-2 Workplace Surveillance Using Frequent Point-of-Care Testing in Predominantly Minority Rural Essential Workers \$958,041	University of Pennsylvania Computer Assisted Telephone Interview \$83,715
John E. Fogarty International Center for Advanced Study in the Health Sciences Training and Research on Severe Malarial Anemia - FY21-22 \$268,184	Miners Colfax Medical Center Medical Consultation and Care - Continuation \$203,023	Zenith American Solutions, Inc. Occupational & Environmental Health Services \$25,000
Harvard School of Public Health Fogarty Global Health Training Fellowship Program - Continuation 5 \$14,261	QTC Medical Group Second Medical Opinion Evaluations - Non-Specific Supplement \$25,000	Honeywell Aerospace Occupational Health Services \$25,000
Harvard School of Public Health Fogarty Global Health Training Fellowship Program - Y4 \$5,400	Miners Colfax Medical Center An Innovative Approach to Increasing Access to Miners in the Mountain West \$21,517	Lovelace Respiratory Research Institute Occupational Health Clinical Services - FY22 \$25,000
David Schade VisionQuest Biomedical Thermal Imaging Modality for Detection of Large and Small Fiber Diabetic Peripheral Neuropathy \$974,268	Nestor Sosa Merck, Sharp & Dohme, Inc. COVID19: Clinical Trial Phase 2/3: MK4482-001 \$491,436	Lovelace Respiratory Research Institute Occupational and Environmental Health Clinical Services \$25,000
George Washington University Continuation of Glycemia Reduction Approaches in Diabetes: A Comparative Effectiveness Study - Non-Specific Supplement \$513,907	Joao Teixeira Gilead Sciences Multicenter Study Evaluating the Efficacy and Safety of Remdesivir in Participants Hospitalized With COVID-19 and Severe Kidney Disease \$607,886	Molecular Genetics & Microbiology
Case Western Reserve University Epidemiology of Diabetes Intervention and Complications \$126,549	Sentien Biotechnologies Inc. COVID19: SBI-101-002 \$256,000	Kiran Bhaskar Electro Cellular Health Solutions, LLC Determine Anti-Inflammatory and Tropic Properties of Three Different Pulsed



Electromagnetic Field Stimulation - Continuation \$79,463

Electro Cellular Health Solutions, LLC
Determine Anti-Inflammatory and Trophic Properties of Three Different Pulsed Electromagnetic Field Stimulation - Continuation \$67,505

Judy Cannon
National Institute of General Medical Sciences
Effect of Vaping on Lung Immunity - AIM Admin Supplement \$151,500

Bryce Chackerian
Henry M. Jackson Foundation
Epitope-Based Vaccines for Neisseria Gonorrhoeae - Year 3 \$290,983

Massachusetts General Hospital
Innate-Like BCR Activity As a Template for Universal Vaccination Against Influenza Virus - Yr 3 \$70,949

Massachusetts General Hospital
Innate-Like BCR Activity as a Template for Universal Vaccination Against Influenza Virus - Amendment 3 \$70,949

Vojo Deretic
National Institute of General Medical Sciences
Autophagy, Inflammation and Metabolism in Disease Center - Yr 4 \$2,200,660

National Institute of Allergy and Infectious Diseases
Autophagy Against Tuberculosis and HIV - Continuation \$744,529

National Institutes of Health
Pattern Recognition Receptors and Autophagy in Mtb Control in AIDS - Continuation Year 24 \$483,582

Kathryn Frieze
National Institute of Allergy and Infectious Diseases
Defining Chlamydia Trachomatis Adhesion Factor Epitope-Specific Antibody Responses, Functionality and Roles in Protection Against Urogenital Infection \$42,310

National Institute of Allergy and Infectious Diseases
Defining Chlamydia Trachomatis Adhesion Factor Epitope-Specific Antibody Responses, Functionality and Roles in Protection Against Urogenital Infection - Non-Specific Supplement \$516

Alison Kell
National Institute of Allergy and Infectious Diseases
Mechanisms of Intrinsic Host Responses to Hantavirus Infection - Continuation \$106,320

Mary Ann Osley
National Institute on Aging
Functional Analysis of Cellular Quiescence - Year 5 \$310,575

Michelle Ozbun
National Cancer Institute
Mechanisms of Infection by Oncogenic HPVs - Year 5 \$345,867

NTD Labs
Antiviral Properties of CH in HPV- Infected Cells \$6,000

Xuexian Yang
National Institutes of Health
The Cytokine Signal Suppressor CIS in Giant Cell Pneumonitis - Continuation \$378,750

Neurology

Corey Ford
Sanofi US Services, Inc.
EFC16645 - HERCULES \$776,820

Sanofi US Services, Inc.
EFC16035 - PERSEUS \$765,835

Sanofi US Services, Inc.
EFC16034 GEMINI 2 \$680,987

Novartis Pharmaceuticals Corporation
COMB157G23101 - ARTIOS \$278,174

Novartis Pharmaceuticals Corporation
COMB157G23101 - ARTIOS - Specific Supplement \$28,733

Novartis
Clinical Trial Phase 3 - Continuation Through May 1, 2025 \$9,765

Clotilde Hainline
Genentech, Inc.
BA39731: An Observational Study of Ocrelizumab-Treated Patients With Multiple Sclerosis to Determine the Incidence and Mortality Rates of Breast Cancer and All Malignancies \$320,666

Omar Hussein
Syneos Health
Alexion: ALXN1210-MG-306 \$309,604

Monika Krzesniak-Swinarska
Muscular Dystrophy Association
UNM MDA and MDA/ALS Care Center - 01/01/2021 - 06/30/2021 \$10,000

Muscular Dystrophy Association
UNM MDA and MDA/ALS Care Center- 07/01 - 9/30/20 \$5,000

Muscular Dystrophy Association
UNM MDA and MDA/ALS Care Center - 10/01/2020 - 12/31/2020 \$5,000

Surojit Paul
National Institute of Neurological Disorders and Stroke
Role of Brain-Specific Tyrosine Phosphatase STEP in Neuroprotection and Death - Continuation FY21 \$503,383

Ranjana Poddar
National Institute of Neurological Disorders and Stroke
Molecular Basis of Hyperhomocysteinemia-Induced Brain Injury in Ischemic Stroke - Continuation FY22 \$577,986

Stefan Posse National Institutes of Health <i>Concurrent High-Speed FMRI and MRSI (R21) - Continuation FY22</i>	\$149,120	Jonathan Brigman National Institute on Alcohol Abuse and Alcoholism <i>Prenatal Alcohol Exposure and Corticostriatal Control of Behavioral Flexibility - Continuation</i>	\$335,147	National Institute of Neurological Disorders and Stroke <i>Spreading Depolarizations and Neuronal Vulnerability - Continuation</i>	\$326,384
The Mind Research Network <i>Posse COBRE Pilot Grant FY21</i>	\$49,688	Lee Anna Cunningham National Institute on Alcohol Abuse and Alcoholism <i>Network Mechanisms of Impaired Adult Hippocampal Neurogenesis in a Mouse Model of Prenatal Alcohol Exposure</i>	\$340,875	New Mexico State University <i>New Mexico IDEeA Networks of Biomedical Research Excellence - Continuation</i>	\$172,322
Sarah Pirio Richardson Emory University <i>Emory Subaward U54: Continuation FY21</i>	\$161,273	National Institute on Alcohol Abuse and Alcoholism <i>Connectivity of Adult-Generated Dentate Granule Cells in a Mouse Model of Prenatal Alcohol Exposure - Continuation</i>	\$45,520	New Mexico State University <i>New Mexico IDEeA Networks of Biomedical Research Excellence - Mishra - Continuation</i>	\$151,500
PPD Investigator Services <i>AEON Biopharma ABP-19002</i>	\$56,165	David Linsenbardt National Institute on Alcohol Abuse and Alcoholism <i>Repeated Binge Drinking and the Genetic Regulation of Corticostriatal Synchrony - Continuation</i>	\$248,579	New Mexico State University <i>New Mexico IDEeA Networks of Biomedical Research Excellence - Hines - Continuation</i>	\$102,263
PPD Investigator Services <i>AEON Biopharma ABP-19000</i>	\$42,203	Samuel McKenzie National Institute of Mental Health <i>Investigation Into the Synaptic Origins of Hippocampal Replay</i>	\$249,000	New Mexico State University <i>New Mexico IDEeA Networks of Biomedical Research Excellence - Hines - Continuation</i>	\$102,263
Dystonia Coalition <i>Dystonia Coalition FY21 - Patient Enrollment</i>	\$7,500	National Institute of Mental Health <i>Investigation Into the Synaptic Origins of Hippocampal Replay - Continuation</i>	\$247,449	New Mexico State University <i>New Mexico IDEeA Networks of Biomedical Research Excellence - HSC_Bouchonville - Continuation</i>	\$68,175
Hae Shin University of California, San Francisco <i>BVMC3 Project 2 - SWS</i>	\$3,788	Nikolaos Mellios National Institute on Alcohol Abuse and Alcoholism <i>Sex-Dependent Effects of Prenatal Alcohol Exposure on Developmental Programming - Continuation</i>	\$334,982	Carlos Valenzuela National Institute on Alcohol Abuse and Alcoholism <i>Alcohol and Developing Neuronal Circuits (MERIT Award) - Continuation</i>	\$378,750
Michel Torbey AbbVie <i>Abbvie Study #m19-148</i>	\$696,083	Erin Milligan National Institute on Alcohol Abuse and Alcoholism <i>Prenatal Alcohol Exposure Potentiates Pain Via Lifelong Spinal-Immune Changes - Continuation</i>	\$287,162	National Institute on Alcohol Abuse and Alcoholism <i>Alcohol Research Training in Neurosciences - Continuation</i>	\$137,890
University of California, San Francisco <i>Brain Vascular Malformation Consortium: Predictors of Clinical Course - Continuation FY21</i>	\$128,775	Nora Perrone-Bizzozero Georgia State University <i>Mining the Genome-Wide Scan: Genetic Profiles of Structural Loss in Schizophrenia - Continuation</i>	\$13,117	Jason Weick National Institutes of Health <i>Molecular Mechanisms of Excitatory Postsynaptic Diversity</i>	\$378,750
University of Chicago <i>Trial Readiness in Cavernous Angiomas With Symptomatic Hemorrhage - Continuation FY21</i>	\$38,000	Bill Shuttleworth National Institute of General Medical Sciences <i>UNM-CBRR</i>	\$2,183,395	James Botros SetPoint Medical Corporation <i>RESET-RA</i>	\$131,486
University of Cincinnati <i>Sleep for Stroke Management and Recovery Trial Stroke Trial</i>	\$35,500			Andrew Carlson NControl Therapeutics, Inc <i>N.M.2BI</i>	\$160,449
Eastern New Mexico Medical Center <i>Neurology Services</i>	\$25,000			Andrew Hollander Three Crosses Regional Hospital <i>Telemedicine Services</i>	\$25,000
Eastern New Mexico Medical Center <i>Neurology Services</i>	\$25,000			Meic Schmidt Presbyterian Healthcare Services <i>Professional Services/ Consultations</i>	\$402,000
The Mind Research Network <i>MRN Administrative Operations - Continuation FY21</i>	\$21,694			Lovelace Health System <i>On-Call Services</i>	\$50,000
University of Chicago <i>Trial Readiness in Cavernous Angiomas With Symptomatic Hemorrhage - Non-Specific Supplement</i>	\$1,650				
Neurosciences					
Andrea Allan National Institute of Environmental Health Sciences <i>Prenatal Arsenic Exposure Alters Transcriptional, Post-Transcriptional and Post-Translational - Continuation</i>	\$335,025				

Obstetrics & Gynecology

Gillian Burkhardt

Society of Family Planning
MEeP \$15,000

Conrad Chao

New Mexico Department of Health
High-Risk Prenatal Care \$82,460

New Mexico Department of Health
High-Risk Prenatal Care \$82,460

Gena Dunivan

Renovia, Inc.
Renovia Clinical Trial \$75,040

Eve Espey

New Mexico Department of Health
DOH Family and STD Disease Services
FY22 \$608,120

Anonymous Non-Profit Foundation
Fellowship in Family Planning \$209,195

Collaborative for Gender & Reproductive
Equity
CGRE UNM CAREs Grant \$165,000

Anonymous Non-Profit Foundation
Fellowship in Family Planning \$135,450

First Choice Community Healthcare
Midwifery Services FY22 First Choice \$95,260

New Mexico Department of Health
Certified Nurse Midwife Contractor Project
W/BAA \$78,438

Albuquerque Area Indian Health Service
OB/GYN IHS Specialty Services -
Continuation \$72,490

New Mexico Department of Health
Provide Risk-Appropriate Prenatal Medical
Services to Medically Indigent Women in
N.M. FY22 \$54,960

St. Vincent Regional Medical Center
Professional Services-Continuation \$25,000

Planned Parenthood of the Rocky Mountains
OB/GYN Services & Medical
Directorship \$25,000

New Mexico Perinatal Collaborative
Director of Maternal Health Initiatives FY22
N.M. Perinatal \$25,000

St. Vincent Regional Medical Center
Professional Services FY22 \$25,000

New Mexico Department of Health
Certified Nurse Midwife Contractor Project
W/BAA - Specific Supplement \$2,057

Lisa Hofler

New Mexico Department of Health
Tubal Ligation Sterilization \$270,080

New Mexico Department of Health
Family Planning & Vasectomy \$90,444

Society of Family Planning
Dale SFP Research \$15,000

University of California, San Francisco
SWS - Continuation \$4,000

University of California, San Francisco
SWS - Continuation \$2,000

University of Texas Austin
COVID-19 Texas-Only Study \$1,270

Yuko Komesu

Research Triangle Institute
PFDN Capitation - Continuation \$15,150

Office of the Medical Investigator

Lauren Decker

New Mexico Department of Health
FY21 Mass Fatality Planning \$39,985

New York University Grossman School of
Medicine
Understanding the Long-Term Effects of
SARS-CoV-2 Infection Through a Correlation
of Postmortem Imaging and Histopathologic
Findings at Autopsy \$19,011

New Mexico Department of Health
FY21 N.M. VDRS \$5,275

Heather Jarrell

New Mexico Public Safety Department
COVID-19 2020 Coronavirus Emergency
Supplemental Funding \$100,000

Bureau of Indian Affairs
BIA Autopsy Services \$88,725

New Mexico Department of Health
Non-Pending Toxicology Salary Support -
Continuation \$80,000

New Mexico Public Safety Department
2020 Paul Coverdell Formulary \$55,587

Department of Veterans Affairs
VA Autopsy Services 11/7/20 - 11/06/2021 -
Continuation \$32,092

Lovelace Health System
Autopsy Services FY21 \$25,000

Lori Proe

New Mexico Crime Victims Reparation
Commission
FY21 Grief Services \$104,643

Centers for Disease Control and Prevention
OMI UNM SUID SDY Application -
Continuation \$66,378

Ophthalmology & Visual Sciences

Robert Avery

Eye Associates of New Mexico
Neuro-Ophthalmology Services FY22 Eye
Associates \$196,903

Arup Das

National Eye Institute
Novel Biomarkers & Genetics of Diabetic
Retinopathy - Continuation \$666,571

Genentech, Inc.
RHONE GR41987 \$199,773

A. Robb McLean

Eye Associates of New Mexico
Professional Services -
Continuation \$172,500

Orthopaedics & Rehabilitation

Michael Decker

Arthrex, Inc.
External Versus Internal Knee Brace \$8,440

Deana Mercer

Skeletal Dynamics
Dual Column \$8,800

Skeletal Dynamics
Wide Versus Narrow \$8,800

Dustin Richter

Aesculap Biologics
A Phase 3 Prospective, Randomized,
Partially Blinded Multi-Center Study
to Measure the Safety and Efficacy
of NOVOCART® 3d, Compared to
Microfracture in the Treatment of Articular
Cartilage Defects - Non-Specific
Supplement \$55,655

Arthrex, Inc.
Arthrex Sports Medicine Fellowship
2020-2021 \$40,000

Smith & Nephew, Inc
Smith & Nephew Sports Medicine Fellowship
2019-2020 \$8,000

Christina Salas

Con Alma Health Foundation
Medical Grade Reusable 3D Printed Masks
for N.M.'s Immigrant Communities \$15,000

Robert Schenck

Lovelace UNM Rehabilitation Services
Pain Clinic - Professional Services \$69,000

ExplorAbilities, Inc.
Physical Therapy Services \$50,000

University of Pittsburgh
Surgical Timing and Rehabilitation for

Multiple Ligament Knee Injuries: A Multicenter Integrated Clinical Trial - Specific Supplement \$5,855

University of Pittsburgh
STaR - Quarterly Redcap Report - 4/1/20-6/30/20 \$5,825

University of Pittsburgh
Surgical Timing and Rehabilitation for Multiple Ligament Knee Injuries: A Multicenter Integrated Clinical Trial - Specific Supplement \$2,818

Pathology

Shweta Agarwal

TriCore Reference Laboratories
TO#24_Roche Digital Pathology Study \$24,100

Cory Broehm

TriCore Reference Laboratories
TO# 19_Roche Navify 2.0 Study \$20,400

Tione Buranda

Revere Pharmaceuticals, Inc.
PSA - Validation of G-trap Assay and Keterolac Activity in Vitro \$19,362

Devon Chabot-Richards

TriCore Reference Laboratories
TO# 20_Roche Navify 2.0 Study \$20,400

Alexandre Chigaev

Gilead Sciences
Evaluation of Novel Probes - Continuation \$143,474

Gilead Sciences
Evaluation of Novel Probes \$138,107

Hakim Djaballah

University of Connecticut
Molecular Mechanism and Preclinical Translation of Beta2 Integrin Auto-Inhibition on Neutrophil Arrest & Inflammation \$30,300

Nadja Falk

TriCore Reference Laboratories
TO#23_Roche Digital Pathology Study \$24,100

TriCore Reference Laboratories
RSTask Order #6_Ventana_MMR ILR Study \$13,350

TriCore Reference Laboratories
TO13_Ventana MMR CRC ILR Study \$13,350

TriCore Reference Laboratories
Task Order #11 Ventana Molecular Systems, Inc. _PDL-1 (SP263) ESCC ILR Study \$200

Rama Gullapalli

TriCore Reference Laboratories
Task Order #7_Gullapalli_abott Alinity Body Fluid Alpha Study \$2,080

Nancy Joste

TriCore Reference Laboratories
Medical Directorship and Professional Services - Continuation \$2,243,199

TriCore Reference Laboratories
Medical Directorship/Scientific Director Services FY22 TriCore \$2,211,496

Southwest Gastroenterology Associates, P.C
Professional Services - Southwest Gastroenterology Associates, P.C. \$150,000

TriCore Reference Laboratories
Task Order #17-Tricore Repository \$82,500

Southwest Gastroenterology Associates, P.C
Medical Director and Physician Services \$25,000

TriCore Reference Laboratories
Task Order #18 Estrogen Receptor WILEY \$13,756

Diane Lidke

National Institute of General Medical Sciences
Imaging the Early Events in Membrane Receptor Signaling - Continuation \$420,193

Yale University
Understanding How Receptor Tyrosine Kinase Activation Dynamics Specify Proliferative Cellular Responses - Continuation \$199,279

Yale University
Understanding How Receptor Tyrosine Kinase Activation Dynamics Specify Proliferative Cellular Responses \$190,613

Genmab
Dissecting the Mechanisms of Action for Hexabody-Driven DR5-Induced Cell Death - Continuation \$149,157

Genmab
Dissecting the Mechanisms of Action for Hexabody-Driven DR5-Induced Cell Death - Specific Supplement \$23,192

Dennis McCance

University of Virginia
Biospecimen Procurement and Tissue Microarray Manufacture for the CHTN - Continuation \$128,337

Aaron Neumann

University of Colorado
Acoustofluidic Pipette for Rapid Serodiagnosis of Candida Infection \$22,725

Kurt Nolte

Astho
Development of a TeleECHO \$32,000

Jay Raval

Rutgers, The State University of New Jersey
Myocardial Ischemia and Transfusion - CCC - Continuation Y4 \$42,000

CTI Clinical Trial Services Inc
Effects of Plasma Exchange \$25,600

Samuel Reynolds

TriCore Reference Laboratories
Task Order # 12_ventana PD-L1 (SP263) ESCC ILR \$10,400

TriCore Reference Laboratories
Task Order #8_ventana Goldfish ILR Study \$4,800

TriCore Reference Laboratories
Task Order # 9 Ovary Repository High Grade QC Review - Continuation \$600

TriCore Reference Laboratories
Task Order # 9 Ovary Repository High Grade QC Review \$400



Marian Rollins-Raval

University of Rochester
Cost-Effective Analysis of Kcentra in Management of Gastrointestinal Bleeding in Coumadin-Treated Patients \$24,700

Larry Sklar

University of Miami
Illuminating the Druggable Genome Resource Dissemination and Outreach Center - Continuation \$372,727

Boston Children's Hospital
Compounds That Block a Novel Candida Albicans Target \$31,223

Mohammad Vasef

TriCore Reference Laboratories
Task Order # 14 - Ventana KLEAR Study \$4,800

Angela Wandinger-Ness

National Institute of General Medical Sciences
Academic Science Education and Research Training - Continuation \$1,047,562

National Center for Advancing Translational Sciences
Illuminating the Functions and Translational Potential of CDC42BP/MRCK Kinases in Ovarian Cancer \$151,500

National Cancer Institute
The Role of Rac1 in Ovarian Cancer Metastasis and Niche Interaction - Specific Supplement \$7,509

Tufts University
UNM-Tufts IRACDA Alliance Project \$4,320

Pediatrics**Shirley Abraham**

Oregon Health & Science University
Regional Hemophilia Network-Mountain States - Specific Supplement \$353,921

Oregon Health & Science University
Regional Hemophilia Network-Mountain States - Continuation \$38,250

Oregon Health & Science University
ATHN - CDC - Public Health Surveillance for the Prevention of Complications of Bleeding Disorders \$25,046

American Thrombosis and Hemostasis Network
ATHN Data Quality Counts \$9,500
 Oregon Health & Science University
Community Counts - Continuation \$4,409

Sanjiv Amin

National Institutes of Health
Improving Brain Myelination With Iron Supplementation in Term Infants \$639,701

**Tanya Baker-McCue**

New Mexico Department of Health
Mi Via Waiver Provider Program \$1,495,465

New Mexico Division of Vocational Rehabilitation
DVR Partners for Employment \$410,000

New Mexico Division of Vocational Rehabilitation
School-to-Work Project - Specific Supplement \$200,000

New Mexico Developmental Disabilities Planning Council
DDPC Information Network \$160,000

New Mexico Developmental Disabilities Planning Council
DDPC Health Access MOU \$10,000

Sophie Bertrand

New Mexico Early Childhood Education and Care Department
Home Visiting Training - Continuation \$1,169,129

Glenda Canaca

National Center for Chronic Disease Prevention and Health Promotion
Connecting Behavioral Science to COVID-19 Vaccine Demand \$500,000

New Mexico Human Services Department
Social Marketing - Continuation \$499,831

Loretta Cordova de Ortega

County of Bernalillo
Professional Service Agreement - Continuation \$200,000

Presbyterian Healthcare Services
Pediatric Nephrology Medical Director Services \$32,928

Presbyterian Healthcare Services
Pediatric Nephrology Services \$25,000

Northern Navajo Medical Center
IHS Service Contract - Genetics - Continuation \$4,800

Theresa Cruz

New Mexico Human Services Department
SNAP-Ed Evaluation - Continuation \$284,276

Falling Colors Corporation
N.M. CADV Needs Assessment \$155,000

New Mexico Department of Health
Youth Risk and Resiliency Survey \$80,852

Presbyterian Healthcare Services
REACH - Continuation \$72,000

Albuquerque Public Schools
APS 1807 - Continuation \$59,971

Thornburg Foundation
Sustaining Home Visiting Referrals - Continuation \$50,000

New Mexico Department of Health
Safe Sleep - Continuation \$39,000

State of New Mexico
Faster Strategic Plan Project \$19,000

Sally Davis

Centers for Disease Control and Prevention
PRC Research - Continuation \$412,080

Centers for Disease Control and Prevention
Healthy Places – Healthy People - Continuation \$337,648

New Mexico Department of Health
Teen Outreach Program \$100,300

New Mexico Department of Health
Implementing Evidence-Based Recommendations in Community Projects \$40,000

Walter Dehority

PPD Investigator Services
Moderna Pediatric COVID Vaccine Trial \$897,550

Medpace Inc MDA 2013-0039: A Phase 3, Multi-Center Study to Evaluate the Efficacy and Safety of Mino-lok Therapy in Combination With Systemic Antibiotics in the Treatment of Catheter-Related or Central Line-Associated Bloodstream Infection - Specific Supplement	\$280,650	New Mexico Public Education Department Improving Health and Academic Success Grant - Continuation	\$25,300	Children's Hospital of Philadelphia NIH NCTN Match, Autopsy, Relapse Grant	\$5,000
Darrell Dinwiddie National Institutes of Health The Effect of 17q21 Locus SNPs on Targeted Host Immune Responses in Children With Rhinovirus-Induced Exacerbations of Asthma - Continuation	\$190,044	Holy Cross of Taos ROAMS in Northeastern N.M. - Continuation	\$20,000	Children's Hospital of Philadelphia AALL1131 Supplemental PCR	\$5,000
Arkansas Children's Hospital ORMDL3-Induced ICAM1 and RVA-Induced Childhood Asthma Exacerbations	\$45,450	Rebecca Kilburn New Mexico Department of Health Youth Risk and Resiliency Survey - Specific Supplement	\$130,000	Children's Hospital of Philadelphia COG ACNS1831	\$3,750
Timothy Dionne Bureau of Health Professions HRSA Scholarship for Disadvantaged Students - Continuation	\$629,941	RAND Corporation Taking Violence Prevention to Scale	\$95,934	Jean Lowe University of Utah DARBE - Continuation	\$179,529
Jacqueline Fridge Celgene Corporation Celgene Crohn's RPC01-3203 Maintenance	\$218,704	New Mexico Department of Health Youth Risk and Resiliency Survey - Continuation	\$82,817	University of California, San Francisco High-Dose Erythropoietin for Asphyxia and Enciphalopathy CCC Project - Continuation	\$21,760
Celgene Corporation Celgene Crohn's RPC01-3204	\$212,774	Santa Fe Community College COVID-19 Virtual Home Visiting	\$40,500	University of Cincinnati Medication Treatment for Opioid Use Disorder	\$18,118
Celgene Corporation RPC1063: Induction Study #1 - a Phase 3, Multicenter, Randomized, Double-Blind, Placebo-Controlled Study of Oral Ozanimod As Induction Therapy for Moderately to Severely Active Crohn's Disease	\$208,001	New Mexico Public Education Department PED Evaluation - Continuation	\$36,500	Peggy MacLean Erikson Institute Erikson FAN Training	\$23,400
Allergan, Inc. LIN-MD-64	\$64,494	New Mexico Public Education Department COVID-19 PED Evaluation - Continuation	\$33,335	Ksenia Matlawska-Wasowska National Institutes of Health The Roles of SOCS5 in T-ALL Migration and Tissue Infiltration - Continuation	\$343,258
Senan Hadid University of Michigan ASCEND	\$10,800	Albuquerque Public Schools APS 1807 - Specific Supplement	\$18,000	Marcia Moriarta New Mexico Department of Health DOH Autism Programs	\$3,431,040
Sandra Heimerl Maternal and Child Health Bureau N.M. LEND Program	\$623,558	Alberta Kong New Mexico Department of Health Long-Acting Reversible Contraception Training and Stocking Project - Continuation	\$750,000	New Mexico Department of Health Early Childhood Evaluation Program SGF, Part B & Part C	\$1,215,600
New Mexico Developmental Disabilities Planning Council N.M. LEND Interdisciplinary Advocacy Workshop	\$2,500	Janssen Research & Development, LLC 28431754DIA3018: A Randomized, Multicenter, Double-Blind, Parallel-Group, Placebo-Controlled Study to Investigate the Efficacy and Safety of Canagliflozin in Children and Adolescents (≥10 to <18 Years) With Type 2 Diabetes Mellitus - Specific Supplement	\$133,458	Administration for Community Living University Center for Excellence in Developmental Disabilities - Specific Supplement	\$571,732
Elizabeth Yakes Jimenez New Mexico Children, Youth & Families Department Telehealth Support for CARA Training	\$29,930	Klein Buendel Web App Technology for Boys and Parents: Improving HPV Vaccine Uptake - Continuation	\$26,941	New Mexico Children, Youth & Families Department ACA-CYFD Nurse Family Partnership PAT - Continuation	\$570,000
Holy Cross of Taos ROAMS in Northeastern N.M.	\$28,000	Brindle Foundation UNM Envision/ Optimizing Care for Neonatal Opioid Withdrawal Syndrome in Rural N.M.	\$25,000	New Mexico Department of Health DDSD Partners for Employment	\$562,800
		John Kuttesch Children's Oncology Group A Collaboration Between Pfizer Inc. and Erasmus – AAML1921	\$260,000	New Mexico Department of Health New Mexico Waiver Training Hub	\$253,764
		St. Baldrick's Foundation Improving Access to Clinical Research Trials	\$50,000	New Mexico Children, Youth & Families Department ACA-CYFD Nurse Family Partnership PAT - Continuation	\$180,000
				New Mexico Department of Health Early Childhood Network - Specific Supplement	\$153,484
				Early Childhood Education and Care Department DDSD Fit Focus Early Intervention Program	\$100,000



New Mexico Department of Health <i>DDSD Community Inclusion (Formerly Informed Choice)</i>	\$100,000
New Mexico Department of Health <i>MFP Contract</i>	\$86,000
New Mexico Department of Health <i>New Mexico SAFE Program</i>	\$83,437
Administration for Community Living <i>COVID Vaccine Resistance</i>	\$59,701
New Mexico Department of Health <i>DDSD PFE Transition Project</i>	\$50,000
Early Childhood Education and Care Department <i>DDSD FIT FOCUS Early Intervention Program - Specific Supplement</i>	\$25,471
Martha Muller	
Cystic Fibrosis Foundation <i>Cystic Fibrosis Center of New Mexico - CF Registry - Continuation</i>	\$85,495
Cystic Fibrosis Foundation <i>Cystic Fibrosis Center of New Mexico - CF Registry</i>	\$66,860
Dawn Novak	
New Mexico Department of Health <i>Developmental Care Continuity Program - Fee for Service - Specific Supplement</i>	\$70,319
Patricia Osbourn	
New Mexico Public Education Department <i>PED Contract SET & DB</i>	\$429,950
Region IX Education Cooperative <i>Region IX Education Cooperative</i>	\$418,990
U.S. Department of Education <i>Project for N.M. Children Who Are Deaf-Blind</i>	\$107,912

New Mexico Public Education Department <i>PED Contract SET & DB - Continuation</i>	\$60,000
New Mexico Developmental Disabilities Planning Council <i>Partners in Policymaking</i>	\$52,000
Rio Rancho Public Schools <i>Rio Rancho Consultations</i>	\$30,000
Belen Consolidated Schools <i>Belen Consultations</i>	\$24,420
Silver Consolidated Schools <i>RBT Supervision</i>	\$15,180
Albuquerque Public Schools <i>Scope for Student - Albuquerque Public Schools</i>	\$3,300
Hengameh Raissy	
Vertex Pharmaceuticals Incorporated <i>VX17-445-105: A Phase 3, Open-Label Study Evaluating the Long-Term Safety and Efficacy of VX445 Combination Therapy in Subjects With Cystic Fibrosis Who Are Homozygous or Heterozygous for the F508del Mutation - Supplement</i>	\$115,476
Duke University <i>POPS II</i>	\$55,216
Mary Ramos	
HBSA <i>N.M. School-Based Health Center Evaluation - Continuation</i>	\$25,220
Leslie Strickler	
New Mexico Crime Victims Reparation Commission <i>SAS State Grant</i>	\$352,600
New Mexico Crime Victims Reparation Commission <i>ACCESS-VOCA Federal Grant</i>	\$72,064

U.S. Department of Justice <i>Expert Witness Contract- Joshua D</i>	\$4,060
Jennifer Vickers	
New Mexico Department of Health <i>CORE</i>	\$1,484,100
New Mexico Department of Health <i>Continuum of Care Main</i>	\$878,800
New Mexico Department of Health <i>Mortality Review</i>	\$164,800
New Mexico Department of Health <i>Mortality Review Project Supplement</i>	\$50,000
Pankaj Vohra	
Allergan, Inc. <i>LIN 66</i>	\$181,000
Kristi Watterberg	
Eunice Kennedy Shriver National Institute of Child Health and Human Development <i>Cooperative Multicenter Neonatal Network - Continuation</i>	\$269,762
Carla Sue Wilhite	
New Mexico State University <i>New Mexico Agrability - Assistive Technology Program for Farmers With Disabilities - Continuation</i>	\$36,980
Craig Wong	
The Children's Mercy Hospital <i>CKiD IV - Continuation</i>	\$16,911
Nationwide Children's Hospital <i>CureGN II</i>	\$15,500
The Children's Mercy Hospital <i>CKiD REACH</i>	\$600
Nan Zeng	
New Mexico Human Services Department <i>CHILE Plus - Continuation</i>	\$411,446
Psychiatry & Behavioral Sciences	
Christopher Abbott	
National Institutes of Health <i>Electroconvulsive Therapy Amplitude Titration for Improved Clinical Outcomes</i>	\$756,111
Georgia State University <i>Data-Driven Approaches to Identify Biomarkers From Multimodal Imaging Big Data - Continuation YR2</i>	\$21,807
Deborah Altschul	
New Mexico Behavioral Health Collaborative <i>FEMA Crisis Counseling Regular Services Program</i>	\$98,582

New Mexico Children, Youth & Families Department <i>Multi-Systemic Therapy Data Reporting Initiative - FY21</i>	\$31,400	Juan Bustillo The Mind Research Network <i>COBRE III - Continuation YR3 (5/01/2020-4/30/2021)</i>	\$81,343	New Mexico Children, Youth & Families Department <i>CYFD Behavioral Health Services Data Project</i>	\$131,100
Falling Colors Corporation <i>FEMA Immediate Services Crisis Counseling Program 2021 (FY21 Continuation)</i>	\$16,011	The Mind Research Network <i>COBRE III - Specific Supplement YR3</i>	\$26,301	Avron Kriechman New Mexico Department of Health <i>Alliance Building for Suicide Prevention & Youth Resilience - Amendment 1</i>	\$160,000
Falling Colors Corporation <i>FEMA Immediate Services Crisis Counseling Program 2020</i>	\$15,285	Jose Canaca New Mexico Behavioral Health Collaborative <i>Rural Public Psychiatry Program</i>	\$450,000	New Mexico Department of Health <i>Mescalero Suicide Prevention - Continuation</i>	\$55,000
David Arciniegas University of Colorado <i>University of Colorado MIBH Consulting for Research - Arciniegas</i>	\$120,000	Jennifer Crawford Falling Colors Corporation <i>Adolescent Substance Use Reduction Effort – Treatment Implementation (CYFD FY21) - Continuation</i>	\$135,000	Christopher Morris Falling Colors Corporation <i>Systems of Care III - CYFD - UNMMG - Continuation</i>	\$499,757
Caroline Bonham New Mexico Human Services Department <i>HSD Behavioral Health Consultant, CBHTR, EARLY Clinic, Honoring Native Life Medicaid</i>	\$2,696,853	Association of Psychology Postdoctoral and Internship Centers <i>Call to Action on Equity, Inclusion, Diversity, Justice and Social Responsibility Project</i>	\$5,000	Davin Quinn Army Medical Research Acquisition Activity <i>Control Network Neuromodulation to Enhance Cognitive Training in Complex Traumatic Brain Injury</i>	\$3,806,168
Falling Colors Corporation <i>Substance Use Disorder Prevention that Promotes Opioid Recovery and Treatment for Patients and Communities Act (N.M. SURT) - FY21 Continuation)</i>	\$632,081	Annette Crisanti National Institute of Mental Health <i>Feasibility of an Early Detection Program for Early Psychosis on a College Campus (Reducing DUP)</i>	\$225,257	New Mexico Governor's Commission on Disability <i>Governor's Commission on Disability, Brain Injury Advisory Council</i>	\$30,386
Falling Colors Corporation <i>Substance Use Disorder Prevention that Promotes Opioid Recovery and Treatment for Patients and Communities Act</i>	\$326,108	Falling Colors Corporation <i>Opening Doors Through Services and Supports for Homeless Individuals with Serious Mental Illness or Co-Occurring Disorder</i>	\$94,720	The Mind Research Network <i>COBRE Pilot - MRN</i>	\$18,327
Indian Health Service <i>IHS Tele-Behavioral Health, Training & Consultation - Continuation</i>	\$300,000	Falling Colors Corporation <i>Opening Doors for Homeless - FY22</i>	\$94,720	Arca Foundation <i>Medical Director Services</i>	\$12,000
Indian Health Service <i>IHS Tele-Behavioral Health, Training & Consultation - Non-Specific Supplement</i>	\$248,959	Albuquerque Police Department <i>APD Wellness Initiative</i>	\$74,500	New York University <i>Post-Acute Sequelae of SARS-COV-2 Infection Initiative</i>	\$7,514
Albuquerque Area Indian Health Service <i>IHS-AAO Substance Abuse & Mental Health Clinical and Community Education Training and Outreach Services - Continuation</i>	\$99,000	Bernalillo County <i>CONNECT FY21 Supplement</i>	\$20,000	Julie Salvador New Mexico Behavioral Health Collaborative <i>N.M. State Opioid Response-2020</i>	\$741,750
New Mexico Indian Affairs Department <i>Suicide Prevention Support for the N.M. Indian Affairs Department</i>	\$75,000	Jaymes Fairfax-Columbo New Mexico Human Services Department <i>Comprehensive Opioid, Stimulant, and Substance Abuse Site-Based Program</i>	\$83,250	Agency for Healthcare Research and Quality <i>Innovative Model for Increasing MAT Access (AHRQ MAT) - Year 4</i>	\$383,316
Falling Colors Corporation <i>Lifeline 988</i>	\$72,320	New Mexico Behavioral Health Collaborative <i>Transformation Transfer Initiative</i>	\$64,448	Falling Colors Corporation <i>N.M. State Opioid Response - SFY21</i>	\$330,670
New Mexico Children, Youth & Families Department <i>Indigenous Youth Wellness Summit 2021</i>	\$15,000	Martha Faulkner Falling Colors Corporation <i>Bridges to Wellness Evaluation (B2W Evaluation, PIPBHC) - SFY21</i>	\$179,592	New Mexico Behavioral Health Collaborative <i>N.M. State Opioid Response - 2020 - Amendment 1</i>	\$13,292
Indian Health Service <i>IHS Tele-behavioral Health, Training & Consultation - Supplement</i>	\$9,052	Brian Isakson Substance Abuse and Mental Health Services Administration <i>Addressing Childhood Trauma Through Intervention, Outreach, and Networking - FY21</i>	\$399,519	Mauricio Tohen UNM Hospital <i>Support ACT Agreement</i>	\$120,598
				County of Bernalillo <i>Psychiatric Services - Continuation</i>	\$100,375
				First Choice Community Healthcare <i>First Choice Community Healthcare</i>	\$73,402
				Paradigm-Catastrophic Care Management <i>Medical Director Services</i>	\$25,000

Universidad Central del Caribe School of Medicine
First Episode Psychosis in Hispanic and Latino Populations \$4,000

Universidad Central del Caribe School of Medicine
First Episode Psychosis in Hispanic and Latino Populations - Specific Supplement \$500

Ann Waldorf
 Falling Colors Corporation
Assertive Community Treatment - SFY21 \$136,132

Douglas Ziedonis
 National Cancer Institute
 University of Pennsylvania
Testing an Organizational Change Model to Address Smoking in Mental Healthcare (ATTOC) \$161,251

Radiology

Gary Mlady
 Department of Veterans Affairs
Provide Radiological and Nuclear Medicine Diagnostics and Therapy Services for N.M. VAHSC FY21 - Continuation \$3,259,177

New Mexico Department of Health
BCC Early Detection Program \$126,941

New Mexico Department of Health
DOH:BCC Early Detection Program \$73,850

New Mexico Department of Health
BCC Early Detection Program - Specific Supplement \$63,300

X-Ray Associates of New Mexico
Medical Physicist Services - Continuation \$25,000

Foot and Ankle Specialists of New Mexico
Physicist Services \$25,000

Pima Medical Institute
Medical Physicist Services \$25,000

Jacob Ormsby
 Polyganics
Polyganics PSA \$74,040

Surgery

William J. Gurule
 UNM Sandoval Regional Medical Center
Trauma Services \$25,000

John Marek
 Specialty Hospital of Albuquerque
Physician Services \$25,000

Presbyterian Medical Services
On-Call Surgical Services FY22 PHS \$25,000

Jason McKee
 Lovelace Health System
Physician and Medical Director Services \$25,000

Richard Miskimins
 New Mexico Department of Health
Firearm Surveillance Through Emergency Rooms \$23,100

Ming Wang
 Parexel International
ACTIV-IV COVID-19 \$104,738

UNM HOSPITAL

A. Robb McLean
 City of Albuquerque
Scope of Services/Gang Prevention \$264,910

City of Albuquerque
Early Intervention for Children Services - Continuation \$215,632

New Mexico Department of Health
DOH BCC Early Detection Program/ Screening Service Case Manager FY22 \$85,000

Rodney McNease
 UNM Hospital
Behavioral Health Services \$1,503,757

City of Albuquerque
Assertive Community Treatment Program - Continuation \$643,300

UNM MEDICAL GROUP, INC.

A. Robb McLean
 City of Albuquerque
COVID-Related Social Services \$40,000

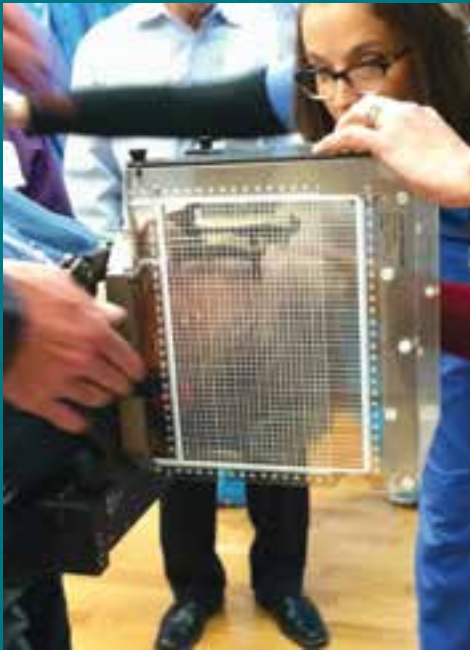
New Mexico Cancer Care Alliance
Professional Services \$25,000

Presbyterian Medical Services
Locum Tenens Services \$25,000

Miners Colfax Medical Center
Telemedicine Services for Colfax Medical \$25,000

Loretta Cordova de Ortega
 County of Bernalillo
School-Based Health Services \$136,919





How to Donate to UNM Health Sciences Research

Join Us on Our Journey of Discovery

Our research programs are focused on critical health problems affecting New Mexicans and bridging the gap to more rapidly deliver discoveries to the clinical setting. Often, the benefits of our innovations and discoveries are recognized and shared beyond our state borders with institutions in other states and in countries around the world.

Your contributions will help us meet new challenges and seek solutions to help people lead longer and healthier lives. Donations are accepted through the UNM Foundation, the university-based nonprofit that can accommodate almost any giving interest. Options include support of health research in general, work in a particular disease category, one of our signature programs for scholarships or facilities, or a legacy gift customized to fit the wishes of you as an individual, your family or your company.

For more information on how you can contribute to the UNM Health Sciences' discoveries and innovations of the future, contact Bill Uher, Vice President of Development, UNM Foundation, at: bill.uher@unmfund.org or 505-277-4078.

ABOUT THE FOUNDATION

The University's Board of Regents established the UNM Foundation in 1979 as a nonprofit corporation. Ten years later, the Regents delegated the responsibility of overseeing University of New Mexico assets and investments to the UNM Foundation Investment Committee. These assets total more than \$400 million today.

In 2008, the Foundation became a stand-alone organization with expanded fiduciary duties to include fiscal, human resources and treasury functions. All private gifts to the Health Sciences are received through the UNM Foundation, which manages contributions to all university programs. The Foundation's funding model ensures that 100 percent of gifts are directed to the donor's designated purpose.



OFFICE OF RESEARCH
1 University of New Mexico
MSC08-4560, Fitz Hall B-61
Albuquerque NM 87131-0001

UNM HEALTH SCIENCES

Discovery

Research Annual Report
2021

TURNING RESEARCH INTO CURES

