

**Research Annual Report 2014** 



# VISION

The University of New Mexico Health Sciences Center will work with community partners to help New Mexico make more progress in health and health equity than any other state by 2020.

# MISSION

Our mission is to provide an opportunity for all New Mexicans to obtain an excellent education in the health sciences. We will advance health sciences in the most important areas of human health with a focus on the priority health needs of our communities. As a majority-minority state, our mission will ensure that all New Mexicans have access to the highest-quality health care.

# **CORE VALUES**

The UNM Health Sciences Center's most important value is a steadfast duty to improve the health of all New Mexicans. We will serve our patients and the public with **integrity**, **accountability** and the highest level of **professionalism**. We will strive as an institution and as individuals to recognize, cultivate and promote all forms of **diversity**; to fully understand the health needs of our communities; and to advance clinical, academic and research **excellence**. We are committed to performing our duties with **compassion** and **respect** for our patients, learners and colleagues.

# Letters

From the Chancellor for Health Sciences	. 2
From the Executive Vice Chancellor, Vice Chancellor for Research	. 3
From the Dean of the College of Nursing	. 4
From the Dean of the College of Pharmacy	. 5
From the Executive Vice Dean of the School of Medicine	. 6

# **Featured Stories**

11





Paul B. Roth, MD, MS



The University of New Mexico Health Sciences Center is our state's only academic health center – one of fewer than 100 in the nation. We train much of New Mexico's health provider workforce while offering the highest-quality clinical care to our residents.

But we are also charged with planning for the state's health needs. This takes many forms. For example, we conduct an annual workforce analysis that tells policymakers how many health providers we require, and where. We also are engaged in discovering new methods of health care delivery that will benefit future generations while building our capacity for population health research.

This is where our vibrant and growing research enterprise plays such an important role. I'm pleased to report that our research funding continued to grow last year, even as this arena has grown progressively more competitive nationally. In fact, while other academic health centers are struggling, we're thriving. This speaks to the incredible dedication of our faculty, staff and students. I'm very proud of their accomplishments.

Grant funding is just one way to measure a research program's success, however. Our scientific inquiry ultimately must improve the lives of the people we serve. One sign that we're succeeding in this effort is the 37 new private companies created since 2004 from research that was done here.

New business development contributes to New Mexico's economic vitality and holds the potential to transform the treatment of many serious diseases and chronic conditions. This represents our highest and most enduring values.

I want to congratulate our researchers for their contributions, and I am confident that we can look forward to their continued success in coming years.



# FROM THE EXECUTIVE VICE CHANCELLOR AND VICE CHANCELLOR FOR RESEARCH

Some things just improve with time. I'm pleased to report that our research enterprise at the UNM Health Sciences Center has once again seen year-over-year growth, achieving a record \$156 million in grant funding for FY 2014 – a 5 percent increase.

We have maintained this upward trajectory amid a broad decline in the overall level of funding for academic research. With federal dollars declining, we have strengthened our internal capacities while forging strategic partnerships with other entities, such as Sandia National Laboratories.

Affordable Care Act-related grants and contracts have been central to our success. The Office of Research and the Clinical & Translational Science Center provide a suite of training and support services for investigators seeking awards. Over the past three years, we have submitted 144 applications for ACA-related funding and seen an amazing 49 percent success rate, for a total of \$46 million.

We can look forward to continued growth with the successful renewals of our Clinical and Translational Science Award and the UNM Cancer Center's NIH Center Core Grant.

Meanwhile, we garnered national recognition by hosting this year's Land of Achievement: Extending the Reach of Science with SBIR/STTR Programs, the 16th annual Small Business Innovation Research-Small Business Technology Transfer conference. This National Institutes of Health event brought together hundreds of researchers, NIH program officers, small business entrepreneurs and company representatives.

UNM HSC also provided vital leadership by serving as the hub of a regional consortium that brings together researchers from throughout the Western states. New Mexicans can justly take pride in the scope of our groundbreaking biomedical research.



Richard S. Larson, MD, PhD

RichtSZ





# FROM THE DEAN OF THE COLLEGE OF NURSING



Nancy Ridenour, PhD, RN, APRN, BC, FAAN

(Maney Ridenous)



The College has historically focused on promoting and enhancing health and wellness, along with creative approaches to helping patients, families and communities manage health challenges.

Our research addresses cancer prevention and screening, sleep apnea, pain, respiratory conditions, childhood asthma and rural health, along with problems affecting particular populations, such as Native Americans and veterans.

College of Nursing faculty lead important projects and participate as members of interdisciplinary teams. They also contribute to local and national initiatives dedicated to advancing the science of health, including UNM's Clinical & Translational Science Center and the federally funded Patient-Centered Outcomes Research Institute.

We also engage in translational science by collaborating with others to help implement evidence-based solutions while growing our partnerships with other organizations, government and industry.

The Nurse-Family Partnership Program is one example where nursing faculty, students, alumni and other practitioners make a difference within the community. This model, in which nurses work closely with new parents, already has shown promising outcomes and has the potential to improve children's health throughout their development.

The College's longstanding model of collaborative research and service continues to bear fruit as we work with colleagues and partners to address New Mexico health priorities.

COLLEGE OF NURSING COLLEGE OF PHARMACY





College of Pharmacy researchers are dedicated to finding cures, novel treatments and non-invasive diagnostics for some of the nation's deadliest diseases and public health threats.

Research at the College focuses on improving outcomes for stroke victims, growth and neurocognitive deficits associated with prenatal alcohol exposure, novel therapeutics and interventions for infectious diseases, the prevention of coronary artery disease and the treatment of congestive heart failure.

College researchers are also examining and finding treatments for diseases associated with exposure to air and traffic pollutants, pesticides, tobacco and UV exposure, as well as arsenic, uranium and other heavy metals, and environmental toxins. Cancer research focuses on diagnosing and treating leukemia, breast, ovarian, prostate and other cancers. Other investigations involve novel drug and vaccine delivery, medication therapy management and serious adverse drug reactions.

The College received more than \$7.8 million in extramural research support this fiscal year – a remarkable 40 percent increase compared to total research awards in FY 2014. Most impressively, total National Institutes of Health funding increased 121 percent over the same period. This growth has translated into a significant improvement in the College's national research performance rankings: the American Association of Colleges of Pharmacy ranked the College 27th in total funding and 29th in NIH funding for federal FY 2013 among 130 U.S. colleges of pharmacy.

The College promotes interdisciplinary scientific collaborations via its Requestfor-Proposals Intramural Pilot Funding Initiative. It is fostering team science collaborations and building on its areas of excellence to increase extramural funding, including large-scale programmatic grants and other high-impact outcomes.

PV.GALL

**ACINNA** 

PV.GAMBOG.



Lynda S. Welage, PharmD, FCCP

Syd I Welage





# FROM THE EXECUTIVE VICE DEAN of the school of medicine



Thomas M. Williams, MD

Shi m Ja

The UNM School of Medicine had another record-setting year in overall research funding success. In a challenging environment for academic health centers, we continued to grow our research enterprise in an approach that is highly integrated with our clinical and educational missions.

The School's total research funding increased to more than \$133 million in FY 2014, including significant increases in cancer and pediatric clinical trials, awards associated with the Patient Protection and Affordable Care Act, and continued success in basic research and programmatic grants from the National Institutes of Health.

Several new programs will help train medical and graduate students in the art of discovery and translation of new knowledge to better care for those affected by illness. Under the umbrella of our Clinical & Translational Science Center, we continued to develop our Signature Research Programs in cancer, cardiovascular and metabolic disease, child health, infectious diseases and immunity, and environmental health, with a special emphasis on brain and behavioral health.

The Brain and Behavioral Health Institute is developing our extensive clinical and research expertise to facilitate interdisciplinary solutions to the myriad diseases of brain and behavior facing New Mexicans. The institute has reached out across the state to talk to patients, families and support groups to better understand those needs that we can best address through collaboration.

In line with our core values, we are supporting and training the next generation of investigators and caregivers to achieve our Vision 2020 initiative to improve the health and access to care for all New Mexicans.



Anterior default mode



eral prefrontal cortex (left)





# KEEPING CURRENT: TRACKING THE NEURAL EFFECTS OF ELECTROCONVULSIVE THERAPY

Electroconvulsive therapy sounds scarier than it looks.

An electrode placed on a sedated patient's right temple sends 25-millisecond bursts of electricity surging through the brain for seven seconds, inducing a 40-second seizure. Drugs briefly paralyze the patient's muscles; only faint twitching in one foot betrays what is happening.

"It's really anticlimactic," says Christopher Abbott, MD, medical director of UNM's Electroconvulsive Therapy Service. But ECT, as it is known, can yield dramatic results for patients with severe, treatment-resistant depression.

A month-long course of ECT treatments often relieves depression symptoms while spurring the growth of new neurons in the hippocampus, a brain structure that plays a central role in forming long-term memories, Abbott says.

He is part of a \$12 million multi-modal neuroimaging investigation to explore the neural basis of psychiatric disorders. Abbott conducts MRI scans of patients' brains before, during and after ECT to better understand how the treatment works and which patients are most likely to benefit.

Abbott, who completed his residency in psychiatry and earned a master's degree in clinical and translational research at UNM, credits Juan Bustillo, MD, a professor of psychiatry and neurosciences, for his mentorship in neuroimaging. "He's been really instrumental in helping me develop my research career," Abbott says.

Abbott, who also was a Mentored Clinical Research Scholar, credits the UNM Clinical & Translational Science Center for providing multiple resources to support his research. "It's unusual to have a high-tech scanner this close to patients," Abbott says. "We are in a really unique position to be able to capitalize on our inpatient psychiatric facility and get people into the scanner."





# Principal Investigator Christopher Abbott, MD

Assistant Professor, Department of Psychiatry; Medical Director, Seniors Clinic and Electroconvulsive Therapy Service

# Grant Name

Multimodal Imaging of Neuropsychiatric Disorders: Mechanisms and Biomarkers (COBRE II)

### Grantor

National Institute of General Medical Sciences

#### Collaborators/Mentors

Juan Bustillo, MD, Andy Mayer, PhD, and Vince Calhoun, PhD





# Principal Investigator Natalie Adolphi, PhD Research Associate Professor, Department of Biochemistry and Molecular Biology

### **Co-Investigators**

Kurt Nolte, MD, Professor, Department of Pathology; Assistant Chief for Research, New Mexico Office of the Medical Investigator; Director, Center for Forensic Imaging;

Gary Hatch, MD, Visiting Assistant Professor, Departments of Radiology and Pathology, New Mexico Office of the Medical Investigator

#### Grant Name

Investigation of Post-Mortem Magnetic Resonance Imaging for the Detection of Intraneural Hemorrhage

Grantor National Institute of Justice

Collaborators/Mentors Chandra Gerrard, RT

# BODIES OF EVIDENCE: THE QUEST TO IMPROVE POST-MORTEM IMAGING

Nature is unkind to decomposing bodies. Muscle, skin and internal organs slacken and lose their form as time, temperature and other factors drive the inexorable process of decay.

Tissue breakdown brings with it substantial changes in chemical composition and physical properties, explains Natalie Adolphi, PhD, who is exploring ways to enhance magnetic resonance imaging (MRI) of human corpses.

The same MRI methods that allow doctors to get detailed images of soft tissue in living patients don't work as well once tissue cools and decomposition sets in, explains Adolphi, a research associate professor in the Department of Biochemistry and Molecular Biology.

"My goal is to understand the effect of post-mortem changes in both temperature and time since death," Adolphi says, "and then be able to account for those by adjusting imaging protocols to give high-quality images that could then be used diagnostically to aid in determining things like the cause and manner of death."

Adolphi has teamed up with pathologist Kurt Nolte, MD, director of UNM's Center for Forensic Imaging in the Office of the Medical Investigator (OMI), and radiologist Gary Hatch, MD, the center's assistant director, to conduct tissue experiments using OMI's 1.5-Tesla MRI scanner.

Featured on **HSC** 

In work funded by the National Institute of Justice, the trio has conducted experiments on animal tissue (using byproducts of food production) – mainly from pigs, because it closely resembles human tissue. Adolphi experimentally adjusts the scanner's sampling rate to compensate for temperature and time post-mortem to obtain the highest quality image, creating a reference standard for pathologists to use.

New Mexico's OMI, which handles all autopsies in the state, is unique in the U.S. for having both a clinical MR scanner and clinical CT scanner in the autopsy suite, Adolphi says. "It really makes possible a level of access for forensic investigation that just normally wouldn't be available at other medical examiner's offices."

The forensic imaging center is a partnership between the departments of Radiology and Pathology, the School of Medicine and OMI, says Nolte, who has performed or supervised more than 4,000 conventional autopsies. "The purpose of the center is to really foster interdisciplinary and multispecialty research, as well as provide support for clinical imaging," he says.

Pathologists performing autopsies sometimes encounter serious obstacles due to severely decomposed tissue, Nolte says. "To be able to adjust MR scanners so that they can image tissues that are decomposed, too hot, too cold – all of the different variables – so that forensic pathologists can then get a window into anatomy that may be difficult to dissect, is very important."



Hatch, who studied "virtual autopsy" techniques in Switzerland before coming to UNM three years ago, helps Adolphi identify changes in anatomical structures in her research. The Swiss, he says, are studying how much of the traditional autopsy method could be replaced by digital tools that include medical imaging, laser scans and high-resolution color photos.

Adolphi believes the research holds tremendous potential. "The next level would be a new grant further down the road that takes the methods we have developed in this basic study and applies them in a rigorous and systematic way to human subjects," she says.



# TAKING IT TO THE STREETS: NURSE-FAMILY PARTNERSHIP **FOSTERS PARENTING SKILLS IN AT-RISK COMMUNITIES**

The spectrum of human health research is truly expansive, ranging from the tiniest of molecules to whole communities.

UNM's Center for Development and Disability (CDD) focuses on the social determinants of health – with strategies like supporting prenatal care and strengthening parent-child relationships for low-income, first-time mothers - through an evidence-based model called the Nurse-Family Partnership (NFP).





# Grant Name

Maternal, Infant and Early Childhood Home Visiting Program, Medicaid - Nurse-Family Partnership

# Grantor

New Mexico Children, Youth and Families Department

**Collaborators/Mentors** College of Nursing



With key support from the College of Nursing and the New Mexico Children, Youth and Families Department, CDD is participating in this home-visiting health program, which enables licensed nurses to share knowledge and support with at-risk young families. NFP nurses are deployed in Albuquerque's South Valley (the highest at-risk area in the state) to work with teen and single mothers who lack a regular primary care provider, as well as those involved in substance abuse, smoking or other risk factors that hinder good prenatal care and parenting.

Expectant mothers who are less than 28 weeks pregnant and voluntarily enroll in the program receive home visits from a specially trained nurse throughout their pregnancy and until their baby turns two years old.

"Initially, weekly nurse visits involve pending moms and dads, and oftentimes grandparents who might be heavily involved in child care," says CDD director Marcia Moriarta, PsyD, the partnership's principal investigator.

"Topics for discussion are based on the families' desires anything from maximizing baby safety to what to expect from a 1-year-old," Moriarta adds. "The critical component here is our nurses. They're highly qualified, incredibly empathetic, enormously patient and truly caring. Our nursing professionals make great home visitors and have been strong partners in this study."

By helping these vulnerable young mothers achieve healthier pregnancies and births, stronger child development and a path toward economic self-sufficiency, both mother and child benefit – as do communities.





HSB#3250

**Diagnosis:** Multiple Sclerosit

3250 16



HSB# 4378

WR



Diagnosis:

HSB#: 3543 3



Diagno

HSB#: 4064 2

# SEARCHING FOR THE KEY: UNLOCKING THE SECRETS OF MULTIPLE SCLEROSIS

ISB#: 4378 12

In a decades-long research career devoted to unlocking the secrets of multiple sclerosis, Oscar Bizzozero, PhD, credits patient interactions as the key to his lab's success.

"MS is the most common neurological disorder of young adults," says Bizzozero, professor and chair of the Department of Cell Biology and Physiology. "It is a devastating diagnosis and it hits them in their prime."

The disease's daily impact first hit home several years ago when Bizzozero gained a research lab assistant with MS. Now, the National Multiple Sclerosis Society helps support his investigations into how the disease progresses at a cellular level and provides feedback on issues that patients believe are important.

"Working with the MS Society is gratifying," he says. "Their members are wellinformed and highly curious about the state of research."

In previous studies, Bizzozero discovered a protein unique to MS. He has also found that the disease's progression involves the immune system attacking brain and spinal cord cell proteins.

In normal circumstances, an enzyme complex called the proteasome would activate to remove the damaged cells, but MS patients seem to have little or no supply of the complex and it never switches "on." Bizzozero's team is investigating whether this failure is unique to MS or present in other disorders, such as Parkinson's disease, he says.

Bizzozero and his team also hypothesize that oxidized cells contribute to cell death. If true, then preventing that oxidation may be key to preventing disability in patients with progressive MS. Long-term, they hope their research will suggest new treatments to halt the progression of the disease.





Principal Investigator Oscar Bizzozero, PhD Professor and Chair, Department of Cell Biology and Physiology

### Grant Name

Impaired Activity of the Proteasome Activator PA28 in MS

#### Grantor

National Multiple Sclerosis Society



# DIAGNOSIS AND TREATMENT: TACKLING THE SCOURGE OF FETAL ALCOHOL SPECTRUM DISORDER

Fetal Alcohol Syndrome (FAS) renders about three in 1,000 U.S. newborns developmentally disabled, causing severe cognitive impairment, distinctive facial features, organ defects and vision and hearing problems. The more a pregnant mother drinks, the greater the risk.

But FAS is just the tip of the iceberg, says Daniel Savage, PhD, a UNM Regents professor and chair of the Department of Neurosciences. "Lurking beneath FAS are more than 10,000 newborns each year affected by Fetal Alcohol Spectrum Disorder," he says. "That's a higher prevalence than autism."

Fetal Alcohol Spectrum Disorder (FASD) is a less-severe neurodevelopmental condition caused by a combination of prenatal alcohol consumption and other risk factors, like smoking, inadequate prenatal care and poor overall maternal health. FASD causes functional brain damage in newborns, affecting intellectual ability, memory, attention, language expression, social perception and abstract thinking. These



IC

Principal Investigator Daniel Savage, PhD Regents Professor and Chair, Department of Neurosciences

### **Grant Names**

New Mexico Alcohol Research Center; Fetal Ethanol Effects on Histaminergic Regulation of Neurotransmission

#### Grantor

National Institutes of Health/ National Institute on Alcohol Abuse and Alcoholism lifelong cognitive deficits can lead to failure in school, dependent living and trouble with the law, as well as increased risk for medical conditions like obesity, diabetes, hypertension and certain cancers.

Savage was recently awarded an \$8.1 million National Institutes of Health grant to support the New Mexico Alcohol Research Center, one of just 18 NIH-designated alcohol research centers, and the only one targeting mechanisms and diagnosis of FASD, as well as effective interventions.

The center comprises 15 faculty investigators from the departments of Neurosciences, Psychology, Pediatrics and OB/GYN, as well as the College of Pharmacy and the Mind Research Network. Their projects range from preclinical research on how prenatal alcohol exposure causes functional brain damage to clinical studies targeting earlier detection and improved interventions for adverse neurobehavioral consequences associated with FASD.

Researchers at the Center are also investigating how drinking during pregnancy alters neurotransmitters in the brains of alcohol-exposed offspring, and whether existing drugs might help reverse some of the behavioral problems associated with FASD-stricken children.

The work focuses on a neurotransmitter called histamine, Savage explains. The activation of histamine type 3 receptors inhibits glutamate, an excitatory neurotransmitter, potentially suppressing learning and memory.

"FASD kids' histamine systems seem to be in overdrive, inhibiting glutamate and thereby suppressing neurotransmission," Savage says. He hopes to identify existing compounds that block histamine's ability to activate those type 3 receptors, thereby boosting glutamate-powered neurotransmission by "inhibiting inhibition."



# EARLY WARNING: DETECTING TELLTALE SIGNS OF FETAL ALCOHOL EXPOSURE

UNM researcher Ludmila Bakhireva, MD, PhD, explores the neural correlates of Fetal Alcohol Spectrum Disorder, employing state-of-the-art imaging technology and behavioral measures to identify early signs of functional brain damage in infants prenatally exposed to alcohol.

Bakhireva, an associate professor in the College of Pharmacy, and Julia M. Stephen, PhD, of the Mind Research Network, are using magneto- and electro-encephalography to scan 120 mother-baby pairs at six and 20 months of age for early signs of atypical brain development. It's UNM's first NIH-funded prospective cohort study of pregnant women and their children affected by prenatal alcohol exposure.

"FASD is often not diagnosed until behavioral deficits become apparent in schoolaged children," Bakhireva says. "We would like to develop tools for diagnosis in the first two years of life."

With Johnnye Lewis, PhD, of the College of Pharmacy, Bakhireva also measures multiple biomarkers to gauge the combined effects of prenatal alcohol exposure and environmental toxicants on children in the Navajo Birth Cohort. They hope this research will reduce health disparities in the Navajo Nation and improve reproductive health outcomes.

Approximately 15 percent of pregnant women use alcohol, with rates as high as 20 percent reported in recent decades. Bakhireva believes her research could help more fetal alcohol-affected children receive effective early intervention, sparing them devastating disabilities later in life.

Ludmila Bakhireva, MD, PhD (left) and Julia Stephen, PhD, show a youngster a magnetoencephalography machine.



Principal Investigator Ludmila Bakhireva, MD, PhD Associate Professor, Division of Pharmacy Practice, College of Pharmacy

### Grant Name

Early Indices of Atypical Neurodevelopment with Fetal Alcohol Exposure

# Grantor

National Institutes of Health/National Institute on Alcohol Abuse and Alcoholism

# Collaborators/Mentors

Johnnye Lewis, PhD, and Julia M. Stephen, PhD

### Core Support

College of Pharmacy; Mind Research Network; School of Medicine



# NANOPARTICLES TRANSFORMING MEDICATION DELIVERY



Principal Investigator Terry Wu, PhD Research Assistant Professor, Department of Internal Medicine

### Grant Name

Development of a Mesoporous Silica Nanoparticle-Supported Lipid Bilayer Platform for Targeted, Triggered, Sustained and Systemic Delivery of Antibiotics

**Grantor** Sandia National Laboratories

# Collaborators/Mentors

Jeffrey Brinker, PhD, and Carlee Ashley, PhD, Sandia National Laboratories

Tularemia, a life-threatening flu-like illness, can spread naturally to humans who come into contact with infected animals, like rabbits. But *Francisella tularensis*, the bacterium that causes the disease, can also be harnessed in a bomb.

"In an act of war or terrorism, that bomb is going to be releasing an aerosol," says Terry Wu, PhD, a research assistant professor in the Department of Internal Medicine. "The most dangerous form of tularemia is caused by inhalation."

With support from the Defense Threat Reduction Agency, Wu and UNM colleagues are collaborating with Sandia National Laboratories on bio-technology that could help protect soldiers exposed to such a weapon.

The Sandia researchers leading the project, Jeffrey Brinker, PhD, and Carlee Ashley, PhD, have engineered "protocells" – nanoparticles that can be filled with antibiotics and modified to release them in selected tissues at highly controlled rates.

A soldier heading into battle could take a single capsule filled with nanoparticles designed to release an antibiotic after exposure to the infectious agent. The antibiotic would continue to be released over the period of time required to completely eliminate infection.

The drug-delivery system shows promise far beyond the battlefield. Protocells could be modified to target a tumor without damaging surrounding tissue. Or they could be used to reduce public health threats from infectious diseases like tuberculosis, delivering a full course of antibiotic in a single capsule.

The technology works well from an engineering perspective, says Wu. He's conducting animal studies to determine the safety and drugreleasing properties of protocells.

"Ultimately," he says, "we want to know whether the protocell is safe, and if so, what's the best way to apply it."

# DOING DOUBLE DUTY: CRAFTING PEPTIDES TO DIAGNOSE AND TREAT PROSTATE CANCER

Prostate cancer is, by far, the most commonly diagnosed cancer among American men. Ridding the body of it would be so much easier if medical oncologists could see the cancerous cells and kill them where they hide. Yubin Miao, PhD, has developed a tool to do just that.

The new peptide he and his team in the College of Pharmacy have developed strongly binds to a specific receptor that prostate cancer cells display in abundance. Normal cells display few or none of these receptors. "This receptor is over-expressed on prostate cancer cells," Miao says. "By targeting the receptors, you can differentiate cancer cells from normal cells."

Miao's team derived its molecule from a naturally occurring peptide, engineering it to have a far stronger binding affinity and include a radioactive atom called a radionuclide. They used several intricate chemical reactions to create these custom-designed peptides, then thoroughly tested their binding affinity.

Radionuclides can be used for either diagnostic or therapeutic purposes. Attaching a radionuclide that emits gamma rays makes the peptide visible in a SPECT or PET scan, allowing doctors to locate the cancer cell to which the peptide has bound. A radionuclide that emits beta rays will also kill the tumor cell once the peptide has latched on.

Miao and his team coined the term "theranostic" to describe their peptide's dual therapeutic and diagnostic ability.

The team is testing the peptide in animal models to pave the way for human studies. They hope their man-made molecule will be used in a clinical setting to help medical oncologists find and kill cancer cells wherever they may be.



### Principal Investigator

Yubin Miao, PhD Associate Professor, Department of Pharmaceutical Sciences, College of Pharmacy

#### Grant Name

Novel Receptor-Targeting Theranostic Peptides for Prostate Cancer

# Grantor

National Institutes of Health/ National Cancer Institute

# WITH AN EYE TOWARD A CURE: UNM RESEARCHERS STUDY RETINAL DISEASES

The eyes, it is said, are the windows to the soul, but for Arup Das, MD, PhD, they also hold clues to a cure for a devastating disease called diabetic retinopathy.

Twenty-nine million diabetic Americans – including an estimated eight million undiagnosed patients – face the threat of gradual vision loss as blood vessels leak into the light-sensitive rear portion of the retina. "Diabetes is a big problem," says Das, chief of the Division of Ophthalmology in the Department of Surgery. "The question is, are we ready?"

Some 150,000 New Mexicans live with diabetes and 50,000 may develop the eye disease. "There are many underserved people with diabetes and advanced eye diseases," Das says. "If I can help them in any way, I'll fulfill my dream."

About 15 years ago, the quest for a cure brought together Das and cell biologist Paul McGuire, PhD. "It was a fortuitous partnership and an opportunity to apply what I had been doing to a more clinically relevant problem," McGuire says.



# Principal Investigators

Arup Das, MD, PhD (left)

Professor of Ophthalmology and Cell Biology and Physiology; Chief, Division of Ophthalmology; Vice Chair (Research) Department of Surgery

**Paul McGuire, PhD** (*right*) Chair, Department of Cell Biology and Physiology

### Grant Name

Inflammatory Chemokines: A Novel Target in Early Diabetic Retinopathy

Grantor National Institutes of Health/National Eye Institute



Das injects medication into the eyes of retinopathy patients to help them regain some of their lost vision, but the treatment falls short of sustainable relief. "I see all the limitations of our current treatment because half of the patients don't respond to it," he explains. Even patients who regain some of their lost vision must return for numerous injections, he adds.

Now, the duo is testing a new treatment targeting a molecule called angiopoietin-2 that spurs the growth of new blood vessels in the retina but also causes them to leak. Taking their promising research from mice to people, the team is acquiring post-mortem human eye tissue in a new collaboration with Madras Diabetes Research Foundation in Chennai, India.

Das and McGuire are also investigating methods for spotting diabetic retinopathy earlier. "There is a period of 10 to 15 years where there are no signs," Das explains. "You don't see any bleeding in the retina, but silently there is some damage going on." The late onset of the disease makes it particularly challenging to treat.

The pair's research has been conducted in the Cell Biology and Physiology Department's laboratory for nearly 17 years. Consistent funding pays for supplies, student researchers, administrative support and grant tracking, enabling the search for a cure to go forward, McGuire says.

While Das and McGuire seek new treatments, Das offers some wise advice: "The most important way to prevent blindness is through diet and controlling blood sugar, blood pressure and blood cholesterol. If a patient doesn't control their diabetes, treatments will be ineffective."



# "HOW DO YOU KEEP THIS BEAUTIFUL CELL HEALTHY?"

...asks Dusanka Deretic, PhD. She's talking about the eye's photoreceptor cell, which she has studied for more than 10 years to understand another leading cause of blindness – retinitis pigmentosa.

The disease, inherited and incurable, causes patients to progressively lose these retinal cells. Deretic explores mutations in a molecule called rhodopsin in the photoreceptor cells of frogs in her lab at the Fluorescence Microscopy Center. The frogs' large photoreceptor cells are ideal to study the eye disease.

"It's the most complicated cell," says Deretic, a research professor in the Department of Surgery. "It's not only very sensitive but it also has to be maintained throughout your life."

Deretic compares a photoreceptor cell to a multi-story building in which rhodopsin resides. To maintain healthy eyesight, the molecule must restrict its movement to certain parts of the building. "If it goes everywhere, it causes everything to collapse and die," she says, "and that is how you lose vision."

Deretic is also collaborating with University of Edinburgh researchers to study two forms of retinitis pigmentosa in hopes of finding a common cure.



Principal Investigator Dusanka Deretic, PhD Research Professor, Department of Surgery

## Grant Name

Rhodopsin Trafficking and Photoreceptor Membrane

#### Grantor

National Institutes of Health/ National Eye Institute



# $f_{\text{kill}} = 2 \cdot \text{BVF} \cdot L \cdot \frac{\sqrt{\text{BVF}} \cdot K_1}{\sqrt{\text{BVF}} \cdot r_{\text{b}} \cdot K_0} (r_{\text{b}}/L) - \frac{K_1 (r_{\text{b}}/(L \cdot \sqrt{\text{BVF}}))}{\sqrt{\text{BVF}} \cdot r_{\text{b}} \cdot K_0} (r_{\text{b}}/L) \cdot (1 - \text{BVF})$

# DOING THE MATH: HOW "MASTER EQUATIONS OF CANCER" CAN TRANSFORM TREATMENT



Vittorio Cristini, PhD, followed that reasoning to develop his "master equations of cancer" mathematical models, which use results from routine noninvasive or minimally invasive tests to predict an individual's response to chemotherapy treatment.

Cristini has shown that this method accurately predicts liver, pancreatic and esophageal cancer responses. Now, he plans to expand his research to include personalized breast cancer treatment.

Cristini, the Victor and Ruby Hansen Surface Professor in Molecular Modeling of Cancer at the UNM Cancer Center, explains that biology is still very important in understanding cancer. "Cancer is a complex, multi-scale, micro-structured material in space and in time," he says.

Genes, he says, change the cellular environment and those changes alter the physical transport properties within a tumor. Cristini's equations describe those physical processes and aim to provide the missing link between the genes and the tumor's behavior.

Cristini's current project will apply these master equations to normal breast development. He hopes to learn why cancer develops as a perturbation – a disturbance to normal development. "Ultimately," he says, "we would like to develop a multi-scale simulator that can show the entire progression from normal duct all the way to breast cancer."

The project includes a concurrent clinical trial being conducted at the UNM Cancer Center to use the equations to guide breast cancer treatment for patients. The clinical trial might find new biomarkers for breast cancer while shedding light on how chemotherapy drugs reach the tumor in breast tissue.

"We need to assess how the predictive value of chemotherapeutic efficacy correlates to clinically relevant outcomes," Cristini says. "Then we can use [the equations] as a tool in the clinic."







# Principal Investigator Vittorio Cristini, PhD

Professor and Director of Computational Biology; Victor and Ruby Hansen Surface Professor in Molecular Modeling of Cancer, UNM Cancer Center

# Grant Name

Collaborative Research: Multistage Modeling of Mammary Gland Development

Grantor National Science Foundation Math and Physics

# Medical Special

otechnology

il Engineering

# NATURAL NETWORKING: USING VIVO TO PROMOTE TEAM-BASED RESEARCH

ical Engineering and Computer Science

To hear Ed Weagel describe it, VIVO sounds a little like a speed dating service for biomedical researchers looking to connect.

"It's for academics to find each other – maybe a mentor or mentee, or recruiting someone to come here for residency or graduate school," says Weagel, biomedical informatics manager for UNM's Clinical & Translational Science Center.

In more formal terms, VIVO is a highly searchable online networking system that enables scientists to identify colleagues who share their research interests. Its use has grown throughout the UNM Health Sciences Center since UNM received its Clinical and Translational Science Award.

"Right now, it's being used by more and more departments as a faculty web page," Weagel says. "The department will have a list of faculty names and those will be linked to VIVO profiles." More than 800 faculty members have created profiles with varying degrees of detail, he adds.

UNM took a big step toward embracing VIVO on an institutionwide basis in 2012, when Pope L. Moseley, MD, chair of the Department of Internal Medicine, required all 250 faculty members in his department to adopt it. "You do that, and suddenly you've got some weight," Moseley says.

VIVO has been of particular benefit within the Mountain West Research Consortium, an 11-institution partnership formed to spur inter-university collaboration, Moseley says.

When awarding pilot grants within the consortium, "We insist that people use VIVO as the first cut in looking for a mentor," Moseley says. "You're training people in research, but you're also teaching people a networking tool – you're training people in team science."

Pope Moseley's research on VIVO © 2008 UC and SciTech Strategies

Infectious Diseases



### Principal Investigator

Richard S. Larson, MD, PhD Professor, Department of Pathology; Executive Vice Chancellor and Vice Chancellor for Research, UNM Health Sciences Center; Director and Principal Investigator, Clinical & Translational Science Center

#### Grant Name

Clinical and Translational Science Award

### Grantor

National Institutes of Health/ National Center for Advancing Translational Sciences







Social :

# MOVING MOUNTAINS: UNM HELPS GUIDE REGIONAL RESEARCH CONSORTIUM

Scientific resources are hard to come by in the wide-open, empty spaces of the West. Low population density and a shared medical frontier pose unique challenges for clinical care and biomedical research.

To meet those challenges, biomedical research must embrace a team approach, says Richard S. Larson, MD, PhD, executive vice chancellor and vice chancellor for research at the UNM Health Sciences Center.



Principal Investigators Bill Shuttleworth, PhD Professor, Department of Neurosciences; Associate Director, Clinical & Translational Science Center

Richard S. Larson, MD, PhD Professor, Department of Pathology; Executive Vice Chancellor and Vice Chancellor for Research, UNM Health Sciences Center; Director and Principal Investigator, Clinical & Translational Science Center That's why UNM led the formation of the Mountain West Research Consortium, with the goal of building research capacity throughout the western United States.

"A single investigator can't do everything that is needed on many research projects," Larson says. "It's important to be able to leverage our capacity and build resources. Being part of a large network of universities enables us to do that."

The idea of banding together as a consortium grew from a meeting in Albuquerque in 2009. By the end of the gathering, attendees from universities in Alaska, Idaho, Montana, Nevada and Wyoming had agreed to form a research network. Hawaii later joined the 11-member consortium.

The consortium benefited from the Institutional Development Award (IDeA) program, launched by the National Institutes of Health (NIH) in 1999 in recognition that federal research funding has historically lagged in many Western states.

Today more than 20 research projects have benefited from the program and more are in the pipeline. The consortium provides opportunities for collaboration and research training, as well as access to shared resources and services. Synergy has been achieved through joint pilot funding, VIVO networking, mini-sabbaticals, junior faculty mentoring and an undergraduate biomedical research pipeline program.



The very challenges that Mountain West researchers face sometimes reveal unique resources and opportunities. Montana, for instance, has a public health program with a national reputation for its work in Native American health concerns. Wyoming had developed a distance education model worthy of study, says Bill Shuttleworth, PhD, codirector of UNM's Clinical & Translational Science Center (CTSC).

Researchers from across the region are now coming to Albuquerque, he says. "Just opening the door is often all that is needed to see real changes," Shuttleworth says. "Many times what they need is funding for teaching release time."

Visiting researchers give a grand rounds lecture, which yields insight into their areas of study. "At the same time," he adds, "they're meeting with successful researchers here who have been through the grant process and know what types of review their efforts will be up against." Pope L. Moseley, MD, chair of Department of Internal Medicine and associate director of the CTSC, has partnered with the CTSC bioinfomatics group to expand the use of VIVO – the shared professional database that allows investigators to search for current member research interests.

The consortium was recently awarded a \$20.4 million NIH grant to further develop research ties. UNM's \$5.3 million share of the grant will enable the Health Sciences Center to serve as the regional biostatistics core and for additional visiting professors, new training programs and mini-sabbaticals by researchers.

"There is a lot of benefit for UNM in these collaborations," Shuttleworth says. "We have been able to expand faculty research into other states and other patient populations."

"This is a tremendous achievement," Larson adds. "I anticipate this will be a platform for further strengthening our relationships with other institutions in the region."





# VIEW TOWARD THE FINISH LINE: RECRUITING ALLIES IN THE RACE TO BEAT DIABETES



### Principal Investigator David Schade, MD

Professor and Chief, Division of Endocrinology and Metabolism, Department of Internal Medicine

# Grant Name

GRADE/Glycemia Reduction Approaches in Diabetes: A Comparative Effectiveness Study

### Grantor

National Institutes of Health/ National Institute of Diabetes and Digestive and Kidney Diseases

# Collaborators/Mentors

Allen Adolphe, MD, PhD, and Mark R. Burge, MD It's going to take a village to defeat the epidemic of diabetes in the United States, says longtime researcher David Schade, MD, who has recruited for his studies hundreds of patients with Type 1 and Type 2 diabetes.

"We are going to win this race," says Schade, chief of the Division of Endocrinology in the Department of Internal Medicine. "A lot of people are working on different aspects of this very complicated disease."

Schade conducts his studies at the Diabetes Research and Treatment Center, launched decades ago by the late Leonard Napolitano, former dean of the School of Medicine, at Schade's behest. The research center is hosting new research to find the best treatment for Type 2 diabetics.

The Glycemia Reduction Approaches in Diabetes Effectiveness study will compare the effectiveness of four drugs in 5,000 diabetics who have developed high blood sugar because they cannot make or use insulin properly.

Schade is partnering with physicians from across the UNM Health Sciences Center to manage the care of some 200 New Mexicans participating in his latest study. "Collaboration is the name of the game," he says. "There is lots of help at our university, lots of expertise and people always say yes."

Schade also is seeking therapies to help Type 1 diabetics, who cannot produce insulin. "We don't have a magic bullet yet," he says. His studies have helped predict the occurrence of the disease five years before a diagnosis, but the search for a drug to prevent it is frustrating. "We are not smart enough right now," he says. "There is too much we don't know."

# BREATHING EASY:

# EXPLORING HOW SLEEP APNEA DRIVES HIGH BLOOD PRESSURE

With obstructive sleep apnea, the upper throat closes and patients stop breathing numerous times during the night, putting them at risk for developing vascular disease that causes a treatment-resistant form of high blood pressure.

Nancy Kanagy, PhD, a professor in the Department of Cell Biology and Physiology, is seeking to understand why that happens.

Just how sleep apnea worsens blood pressure is not well understood, but up to one in five people may suffer from it. When the National Institutes of Health put out a call for proposals on sleep apnea research several years ago, Kanagy realized UNM's experience in conducting vascular studies could provide a novel approach.

"Most researchers were looking at the sympathetic nervous system," Kanagy says. "We thought, 'Why not develop a model to investigate vascular changes and contributions to the elevated blood pressure?"

Kanagy's team first developed a rat model of sleep apnea and found that it only takes about 14 days for repeated exposure to hypoxia (low oxygen) during sleep to increase blood pressure, even during waking hours. They found that hypoxia increases production of an artery-constricting peptide called endothelin, which elevates blood pressure. Ongoing studies are investigating exactly how that happens.

The team is also investigating the role of hydrogen sulfide  $(H_2S)$  in controlling blood pressure. Sleep apnea patients show significantly lower  $H_2S$  levels compared with normal sleepers. The molecule seems to limit inflammation and open arteries, leading to many positive effects in the cardiac and vascular systems.

"Long-term, we are hoping that a better understanding of these mechanisms will lead to new and more effective therapies to treat cardiovascular disease in sleep apnea patients," Kanagy says.





Principal Investigator Nancy L. Kanagy, PhD Professor, Department of Cell Biology and Physiology

### Grant Name Hydrogen Sulfide Regulation of Vascular Tone and Blood Pressure

Grantor National Institutes of Health/ National Heart, Lung, and Blood Institute

# Collaborators/Mentors

Laura Gonzalez Bosc, PhD, and Benjimen Walker, PhD

# 2014 EXCELLENCE IN RESEARCH AWARDS



Left to right: Richard Larson, MD, PhD; Jim Liu, PhD; Ellen Beswick, PhD; Carolyn Mold, PhD; Loretta Cordova de Ortega, MD; Robin Ohls, MD; Karlett Parra, PhD; Vallabh O. "Raj" Shah, PhD; Corey Ford, MD, PhD. (Not pictured, Laurie Hudson, PhD.)

The Sixth Annual Research Day Awards Ceremony was held on October 30, 2014. For the Excellence in Research Awards, four colleagues were nominated by their peers and selected by a faculty committee for outstanding research contributions.

# Award recipients were recognized for their excellence in research in four categories:

Basic Science Research Laurie Hudson, PhD Clinical Science Research **Robin Ohls, MD**  JUNIOR FACULTY RESEARCH Ellen Beswick, PhD POPULATION SCIENCE RESEARCH Vallabh O. "Raj" Shah, PhD



# LAST YEAR'S EXCELLENCE IN RESEARCH AWARD WINNERS



Kathleen Haaland, PhD Clinical Science Research, 2013

Neuroscientist Kathleen Haaland's laboratory studies the cognitive and neuroanatomical correlates of movement after unilateral stroke. A professor in the Department of Psychiatry, Haaland has published more than 100 papers and chapters in a career spanning more than

30 years. Her research into limb apraxia (difficulty performing complex movements) could help with rehabilitation for patients suffering from movement disorders.



Pamela Hall, PhD

Junior Faculty Research, 2013

With her focus on the problem of bacterial resistance (particularly methicillin-resistant *Staphylococcus aureus*), Pamela Hall's research has tremendous relevance for patients and health providers alike. An assistant professor in the College of Pharmacy,

Hall earned her PhD in pharmacology from Case Western Reserve University and trained as a post-doctoral fellow at the National Institutes of Health, as well as at the UNM School of Medicine.

# 2014 EXCELLENCE IN RESEARCH AWARD WINNERS



### Laurie Hudson, PhD Basic Science Research, 2014

In her 17 years at UNM, Laurie Hudson's scientific curiosity has led her to pursue research interests ranging from therapies for ovarian cancer to subjects like wound healing, skin cancer and metal toxicity.

There's a thread tying together these diverse topics, says Hudson, a Regents professor in the College of Pharmacy: epidermal growth factor (EGF), which stimulates cell division and differentiation. When the EGF system is disrupted, trouble ensues.

"The EGF receptor is frequently overexpressed in epithelial tumors," Hudson says. Ovarian cancers share many characteristics with these tumors, she adds.

With her UNM colleagues, she is studying a painkiller called ketorolac for its surprising tumor-fighting properties. "We're in the final stages of our initial clinical trial," she reports.



# Ellen Beswick, PhD

Junior Faculty Research, 2014

Nationally known researcher Ellen Beswick is working to understand how chronic inflammation in the gut promotes the growth of tumors as she searches for new cancer-fighting therapies.

"I discovered three pathways that may be prog-

nostic and therapeutic targets for gastrointestinal cancers," says Beswick, an assistant professor in the Department of Molecular Genetics and Microbiology. "Two involve inflammatory cytokines that are early events during *Helicobacter pylori* infection and in inflammatory bowel diseases that may drive chronic inflammation and tumor development."

The third avenue is a signaling pathway, she says. "The overall goal of my research program is developing novel animal models and utilizing human tissues to pinpoint the precise mechanism in chronic inflammation to target for new therapeutic approaches."



# Robin Ohls, MD

Clinical Science Research, 2014

When Robin Ohls, a professor in the Department of Pediatrics, started in neonatal hematology in the late 1980s she was interested in substances that could boost red blood cells in preterm babies and reduce the need for transfusions.

Ohls found that two hormones – erythropoietin and darbepoetin – were effective and carried an unexpected side benefit: they actually protected the brains of children who received them. "We looked at their cognitive scores at 2 years of age and again at 4 and 6," Ohls says. "We show significant effects with both of the medications we've studied."

"It looks like it's coming along and eventually it will become the standard of care for preterm babies," Ohls says of her research. "We certainly have laid the foundation."



Vallabh O. "Raj" Shah, PhD Population Science Research, 2014

Vallabh O. "Raj" Shah says he was "a lab rat" when he joined UNM in 1990. His background as a biotech industry researcher had given him expertise in kidney disease, but within a few years he was regularly making the 153-mile

drive to Zuni Pueblo in western New Mexico in his new role as a population scientist.

An associate professor in the Department of Biochemistry and Molecular Biology, Shah has worked to help the Zuni people combat an epidemic of diabetes using education and behavioral interventions.

He recently spearheaded the creation of an exercise facility – but he gives most of the credit to the Zunis themselves. "I didn't do anything," he says modestly. "I just had the right staff to help me."

# LAST YEAR'S EXCELLENCE IN RESEARCH AWARD WINNERS



Deborah Helitzer, ScD

Population Science Research, 2013

A professor of community medicine in the School of Medicine, associate vice chancellor for research education and associate director of the Clinical & Translational Science Center, Deborah Helitzer has received more than \$20 million in extramural funding and is ranked

59th in the nation among NIH-funded family medicine researchers. She has co-led a large multi-site study on ways to prevent obesity and diabetes in Native American communities.



# Nora Perrone-Bizzozero, PhD

Basic Science Research, 2013

Nora Perrone-Bizzozero studies the developmental, genetic and molecular bases for schizophrenia and drug abuse. A fellow of the American Association for the Advancement of Science, she has published 84 peer-reviewed papers and four book chapters and had her

publications cited more than 3,000 times. Internationally recognized for her scientific contributions, she collaborates regularly with colleagues in Neurosciences and Psychiatry.



# TAKING CARE OF BUSINESS: **PAVING THE WAY FOR PUBLIC-PRIVATE PARTNERSHIPS**

A rowing hobby taught Doug Vincent that it's not only important to have a powerful stroke, but also a long and smooth recovery—which, he says, also happens to be true for mimicking blood flow during cardiopulmonary bypass surgery.

Vincent is the CEO of Design Mentor, Inc., a New Hampshire medical device company that is developing a pulsatile pressure cardiac pump that mimics the human heart to maintain optimal blood flow during bypass surgery. He won the Pitch Fiesta at October's National Institutes of Health Small Business Innovation Research and Technology Transfer Conference in Albuquerque.

Hosted by the UNM Health Sciences Center, the three-day conference focused on NIH Small Business Innovation Research and Technology Transfer (SBIR/STTR) programs, which in 2014 provided more than \$758 million to support small businesses developing new therapies and medical devices. The conference brought together scientists, engineers, computer programmers, doctors, nurses, entrepreneurs and investors interested in learning about this funding source and in strategies for developing innovative health care solutions.

"NIH SBIR/STTR is crucial for transforming basic discoveries into practical improvements in health care," says Richard S. Larson, MD, PhD, UNM HSC's executive vice chancellor and vice chancellor for research. New Mexico inventors and small businesses have obtained almost \$15 million in SBIR/STTR support since 2010. That funding has supported portable imaging systems to diagnose diabetic retinopathy, 3-D ultrasound technology to detect congenital heart defects in infants, magnetic nanoparticle biopsy techniques and improved feeding devices for use in neonatal intensive care units, among others. Albuquerque Mayor Richard J. Berry spoke about the city's support for biomedical entrepreneurship. "I have a deep and profound respect for anybody here today who is taking the great work that happens with the help of NIH and bringing it to the market to help people be well and survive and spend many fulfilling years with their loved ones," Berry said.





# \$156,103,365

Total awards in FY 2014 \$28.5 million increase since 2005



287

Principal investigators extramurally funded



Business start-ups over 10 years



# BY THE NUMBERS

# HSC RESEARCH 2014



83

Community research sites in New Mexico



1 of 42

National institutions with both an NIH-designated Cancer Center and a Clinical and Translational Science Award



1,346

Proposals submitted



821 Proposals awarded

# SUPPORT FOR SCIEN Growing our Own





# INVESTIGATORS

# KNOWLEDGE

# SUPPO

# **Prioritizing Research**

- Strategic Planning
- Tracking and Continuous Quality
   Improvement

# **Education**

- Food and Drug Administration
- Commercialization
- Seminars
- Online or Face-to-Face
- Good Clinical Practice

# Training

- KL2 (Mentored Clinical Research Scholar Awards)
- Junior Faculty Mentoring
- Undergraduate Pipeline Network
- Masters in Clinical Research
- Clinical and Translational
   Investigators Program
- Mentor Training Program

# Cores

- Biomedical Informat
- Biostatistics
- Community Engage
- Drug Discovery
- Clinical Research Uni
- Human Imaging Core
- Translational Lab
- Flow Cytometry
- Microscopy
- Genomics

# **Pilot Program**

- Clinical and Translati
- New Technology andLinking Clinical Trials
- and Re-purposing
  Linking Technology t Translational Investig
- Community Interven
   Better Health Outcor
- Research Allocation
- Cancer Center Pilots





# PARTNERSHIPS

# **EXTRAMURAL FUNDING**

ics

d Research Core

t e

# าร

onal Pilots I Commercialization to Drug Discovery

o Clinical and Jation tions Leading to nes Committees

# Partners

•

•

- Regional Consortiums
- National Labs (Los Alamos, Sandia)
- State/Community Partners
- New Mexico Angels

# Facilitation

- Biodesign Program
- Synergy Meetings
- VIVO (IT Tool That Enables Collaboration)

# Weekly Announcements of Funding Sources

- National Institutes of Health
- Agency for Healthcare Research
   and Quality
- Health Resources and Services
   Administration
- Patient-Centered Outcomes Research Institute

# Training

- Grantsmanship
- Team Science

UNM HSC supports training in the biomedical sciences at all levels, engaging students and faculty through outreach initiatives and innovative programs to enhance biomedical excellence. We are pleased to recognize the outstanding students and researchers from our campus who have successfully obtained funding from a National Institutes of Health Research Training and Research Career Development program. These highly competitive national awards help to grow our education and research missions to produce the next generation of diverse and highly qualified biomedical scientists across the spectrum of human health.



Mario Aragon, PhD Candidate T32 Scholar, NIH/NHLBI Research Interest: Humoral mediators of endothelial cell activation following exposure to air pollutants and inhaled nanoparticles Mentor: Matthew Campen, PhD



Jonathan L. Brigman, PhD K22 Scholar, NIH Research Interest: Understanding the maladaptive behavioral changes that occur in alcohol abuse, drug addiction and numerous neuropsychiatric disorders



Dawn Delfín, PhD KL2 Scholar, NIH/NCATS Research Interest: Alterations to the cardiac extracellular matrix during heart failure and resulting consequences on cardiac stem cell therapy Mentors: Matthew Campen, PhD, Mary Walker, PhD, and Carlos Roldan, MD



Darrell Dinwiddie, PhD KL2 Scholar, NIH/NCATS Research Interest: Integrative genomic analysis of respiratory viral infections to elucidate determinants of pathogenesis Mentors: Stuart Winter, MD, and Scott Ness, PhD



Alba A. Chavez-Dozal, PhD

K12 Scholar, NIH/NIGMS Research Interest: Investigating the molecular pathogenesis of Candida albicans, including the role of secretory proteins in virulence and biofilm formation Mentor: Samuel Lee, MD, PhD



Jayne M. Christen, PhD K12 Scholar, NIH/NIGMS Research Interest: *Identification of potential vaccine candidates for infectious diseases using a virus-like particle display technology* Mentor: Bryce Chackerian, PhD



**Erin Crossey, PhD** T32 Scholar, NIH/NIAID Research Interest: *Bacteriophage virus-like particles as vaccine platforms: from heart disease to malaria* Mentor: Bryce Chackerian, PhD



Seth Daly, MS T32 Scholar, NIH/NIAID Research Interest: *Anti-virulence strategies targeting methicillin-resistant* Staphylococcus aureus Mentor: Pamela Hall, PhD



Rubi Figueroa-Teran, PhD K12 Scholar, NIH/NIGMS Research Interest: Enzymatic biofuel cells for production of energy for biomedical applications Mentor: Plamen Atanassov, PhD

Re G M

Natalie Fredette, PhD Candidate T32 Scholar, NIH/NHLBI Research Interest: Estrogen-mediated signaling through the G protein-coupled estrogen receptor Mentor: Eric Prossnitz, PhD



**Brian M. Gray, PhD** K12 Scholar, NIH/NIGMS Research Interest: *Role of agr-mediated quorum sensing in Gram-positive bacterial pathogens, and elucidating how novel small molecular inhibitors of quorum sensing block the activation of pathogenic programs in* Staphylococcus aureus Mentors: Hattie Gresham, PhD, and Pamela Hall, PhD



Anastacia Griego, BS F31 Scholar, NIH/NCI Research Interest: *Regulation of* human papillomavirus *replication via cell signaling pathways* Mentor: Michelle Ozbun, PhD



John Hammond, PhD K12 Scholar, NIH/NIGMS Research Interest: Phenotypic plasticity in mosquitoes and its effects on disease transmission Mentors: Helen Wearing, PhD, and Felisa Smith, PhD



Molly Harmon, PhD Candidate T32 Scholar, NIH/NHLBI Research Interest: Cardiovascular risk associated with contaminants from legacy uranium mining sites Mentor: Matthew Campen, PhD



**Stephanie Jerman, PhD Candidate** F31 Scholar Research Interest: *OFD1 as constituent of a multimeric protein complex in odontoblast primary cillia* Mentor: Angela Wandinger-Ness, PhD



Jaime Javier Juarez, PhD K12 Scholar, NIH/NIGMS Research Interest: *Development of a bioanalytical platform for high-throughput biological assays* Mentor: Andrew Shreve, PhD



Michael Kivitz, BS, BA T32 Scholar, NIH/NIAID Research Interest: *The contribution of wounding to* human papillomavirus *infections* 



# Britta Lindquist, MD/PhD Candidate

F31 Scholar, NIH/NINDS Research Interest: Studying regulation of neuronal activity and cerebral blood flow during spreading depolarizations in the brain, to develop interventions that decrease metabolic depletion and increase blood supply to vulnerable tissue after stroke Mentor: Bill Shuttleworth, PhD



Christy Magcalas, PhD Candidate T32 Scholar, NIH/NIAAA

Research Interest: Studying how prenatal ethanol exposure affects adolescent exposure to ethanol and how NMDA antagonist ketamine alters glutamatergic receptor function in the frontal cortex and related behavioral outcomes Mentor: Derek Hamilton, PhD



Michael Mandell, PhD T32 Scholar, NIH/NIAID Research Interest: *TRIM-mediated autophagic targeting of* HIV-1 Mentor: Vojo Deretic, PhD



Kristopher D. Marjon, PhD T32 Scholar, NIH/NHLBI Research Interest: Mechanisms of hematopoietic stem/ progenitor cell homing and cell adhesion to specific microenvironments Mentor: Michael Bogenschutz, MD



Kristin L. Marquardt, BSc T32 Scholar, NIH/NIAAA Research Interest: Impact of prenatal ethanol exposure on executive function in mice Mentor: Jonathan Brigman, PhD



Martha Martinez Grimes, PhD K12 Scholar, NIH/NIGMS Research Interest: Investigating the functional role of vacuolar ATPase proton pumps in the fungal pathogen Candida albicans Mentor: Karlett Parra, PhD



Levi Maston, MD/PhD Candidate T32 Scholar, NIH/NHLBI

Research Interest: Role of the adaptive immune system in the development of chronic hypoxia-induced pulmonary hypertension Mentor: Tom Resta, PhD



Russell Morton, PhD K12 Scholar, NIH/NIGMS

Research Interest: Investigating synaptic abnormalities in the hippocampus induced by prenatal alcohol exposure Mentors: C. Fernando Valenzuela, MD, PhD, and Leah Freeman, PhD



### Prashant Nighot, PhD, DACPV K01 Scholar, NIH

Research Interest: Investigating homeostasis of intestinal epithelium and pathophysiology of intestinal diseases, with a focus on intestinal tight junction barrier and experimental models of intestinal inflammation



### Charles Norton, PhD Candidate T32 Scholar, NIH/NHLBI

Research Interest: Oxidative signaling pathways mediating enhanced pulmonary vasoconstrictor sensitivity in a rat model of chronic hypoxia-induced pulmonary hypertension Mentor: Tom Resta, PhD

# UNM HEALTH SCIENCES TRAINING GRANTS 2014



Robert Oliver, AB T32 Scholar, NIH/NIAAA Research Interest: Drug and alcohol addiction, with emphasis on micro-RNAs Mentor: Nora Perrone-Bizzozero, PhD



Jessica Osmond, PhD T32 Scholar, NIH/NHLBI Research Interest: *Effects of intermittent hypoxia on signaling in mesenteric arteries* Mentor: Nancy Kanagy, PhD



Jennifer Pascal, PhD K12 Scholar, NIH/NIGMS Research Interest: *Multi-scale modeling of cancer tumors* Mentor: Vittorio Cristini, PhD



Danielle Plomaritas, MS T32 Scholar, NIH/NHLBI Research Interest: Contribution of cellular redox and reactive oxygen species to enhanced acid-sensing ion channel 1-dependent calcium entry in a rat model of chronic hypoxiainduced pulmonary hypertension





**Chelsea Saito-Reis, PhD Candidate** T32 Scholar, NIH/NHLBI Research Interest: *Role of CD82 in regulating hematopoietic stem cell adhesion and signaling* Mentor: Jennifer Gillette, PhD



Sabrina L. Samudio-Ruiz, PhD K01 Scholar, NIH/NCI Research Interest: Epigenetic alterations and corresponding changes in gene expression associated with the development of platinum resistance in ovarian cancer cells



Montaser Shaheen, MD K01 Scholar, NIH/NHLBI Research Interest: *The role of hPso4 in DNA repair and chemotherapy resistance* Mentor: Alan Tomkinson, PhD



Joshua Sheak, MD/PhD Candidate T32 Scholar, NIH/NHLBI Research Interest: *Mechanisms of vasoconstriction in a rat model of persistent pulmonary hypertension of newborns* Mentor: Tom Resta, PhD



Akshay Sood, MD, MPH K23 Scholar, NIH

Research Interest: Determining the effect of central adiposity and the pro-inflammatory balance of serum adipokines on specific physiologic and pathophysiologic sub-phenotypes of asthma in pre-menopausal women Mentors: Marianne Berwick, PhD, Mark Schuyler, MD, and

Cor Cor

# Robert Taylor, PhD

Clifford Qualls, PhD

K12 Scholar, NIH/NIGMS

Research Interest: Studying cancer metastasis through synthesis of novel magnetic nanoparticles for immunomagnetic isolation of circulating tumor cells and downstream characterization using next-generation sequencing Mentor: Rama Gullapalli, MD, PhD



Lauren Topper, BSc T32 Scholar, NIH/NIAAA Research Interest: Effects of developmental ethanol exposure on neuroinflammation Mentor: C. Fernando Valenzuela, MD, PhD



Christina R. Tyler, BS F31 Scholar, NIH/NIMH Research Interest: *Neuroepigenetics* 



Mitchell Tyler, PhD T32 Scholar, NIH/NIAID Research Interest: *Development of next-generation virus-like particles targeting HPV* Mentors: Bryce Chackerian, PhD, and Andrea Allan, PhD



Claire Wilcox, MD K23 Scholar, NIH/NIAAA Research Interest: *Pharmacotherapeutic treatment of addictions and neuroimaging* Mentor: Michael Bogenschutz, MD



Kayla R. Zehr, PhD Candidate T32 Scholar, NIH/NHLBI Research Interest: Interactions of nitric oxide and cytochrome P4501A1, and the regulatory role of caveolae and omega-3 polyunsaturated fatty acids Mentor: Mary Walker, PhD

Chancellor for Health Sciences
Health Sciences Library and Informatics Center
Office of Research
Animal Resource Facility
Clinical & Translational Science Center
Financial Aid
Locum Tenens
College of Nursing
College of Pharmacy
Poison Control
School of Medicine
Anesthesiology
Biochemistry and Molecular Biology
Biomedical Research Educational Program
Brain and Behavioral Health Institute
Cancer Research and Treatment Center
Cell Biology and Physiology
Center for Infectious Disease and Immunity
Continuing Medical Education
Dental Medicine
The ECHO Institute
Emergency Medicine
Family and Community Medicine
Internal Medicine
Molecular Genetics and Microbiology
Neurology
Neurosciences
Neurosurgery
New Mexico Tumor Registry
Obstetrics and Gynecology
Office of the Medical Investigator
Orthopaedics
Pathology
Pediatrics
Pediatrics Center for Development and Disability
Pediatrics Prevention and Population Sciences
Psychiatry
Radiology
Research Protections
Surgery
UNM Hospital
UNM Medical Group
UNM Sandoval Regional Medical Center
onin Januoval Regional Medical Center

### CHANCELLOR FOR HEALTH SCIENCES

#### **RICHARD LARSON**

UNM Foundation S Private Gifts for Research	\$800,869
UNM Foundation	566,822
UNM Foundation	\$373,360
UNM Foundation S Private Gifts for Research	\$189,232

#### HEALTH SCIENCES LIBRARY AND INFORMATICS CENTER

#### PATRICIA BRADLEY

Center for Public Service Communications	
Houston Academy of Medicine\$15,000 <i>Outreach</i>	
CATE HANDWOON	

## GALE HANNIGAN

Houston Academy of Medicine ......\$24,983 Good Information for Good Health: Online Continuing Education for New Mexico Health Professionals

#### PHILIP KROTH

#### **OFFICE OF RESEARCH**

#### PAUL ROTH AND RICHARD LARSON

### **Animal Resource Facility**

### **RICHARD LARSON**

New Mexico VA Health Care System.....\$25,048 Veterinary Services for the New Mexico Veterans Affairs Health Care System

### **KEVIN O'HAIR**

NIH/Office of the Director \$490,983
Health Sciences Center Animal Resource Facility Improvement



Ashley Wegel

### **Clinical & Translational Science Center**

#### MARK BURGE

The University of Utah.....\$40,366 Iron-Induced Oxidative Stress and Mitochondrial Dysfunction: Effects on Insulin Secretion and Insulin Sensitivity

The University of Utah.....\$3,000 Iron-Induced Oxidative Stress and Mitochondrial Dysfunction: Effects on Insulin Secretion and Insulin Sensitivity

#### DARRELL DINWIDDIE

PerkinElmer\$7,20 PerkinElmer Consulting Agreement	04
PerkinElmer\$1,5 PerkinElmer Consulting Agreement	10

#### **DEIRDRE ANN HILL**

NIH/National Cancer Institute	\$32,846
Towards a Transdisciplinary Understanding of Breast Cancer Survival	Disparities

#### **ALBERTA KONG**

NIH/National Heart, Lung, and Blood Institute.....\$36,899 ACTION PAC: Adolescents Committed to Improvement of Nutrition & Physical Activity

#### RICHARD LARSON

NIH/National Center for Advancing Translational Sciences\$1,2	72,790
UNM Clinical & Translational Science Center	

NIH/National Center for Advancing Translational Sciences .......... \$294,308 UNM Clinical & Translational Science Center

Biomedical Research Institute of New Mexico ......\$68,999 Exercise Interventions During Voluntary Weight Loss in Obese Older Adults

The Mind Research Network	.\$16,127
Preterm Infants' Mu-rhythm Suppression Evaluation Study	

The Mind Research Network.....\$3,928 Sensitivity to Intravenous Ethanol: Neuroimaging and Behavioral Phenotypes

### **ROBERT WILLIAMS**

NIH/National Institute on Minority Health and Health Disparities ..\$1,328,537 New Mexico Center for Advancement of Research, Engagement and Science on Health Disparities

NIH/National Institute on Minority Health and Health Disparities ... \$645,048 New Mexico Center for Advancement of Research, Engagement and Science on Health Disparities

#### **Financial Aid**

### MARY FENTON
#### **Locum Tenens**

#### **CAROLYN VOSS**

New Mexico Department of Health \$	200,450
Locum Tenens Services for Turquoise Lodge Hospital	

New Mexico Department of Health ..... \$150,000 Psychiatric Services for New Mexico Behavioral Health Institute Patients

New Mexico Department of Health ......\$50,000 Psychiatric Services for New Mexico Behavioral Health Institute Patients

## **COLLEGE OF NURSING**

#### DEBRA BRADY

New Mexico Board of Nursing \$1	54,755
NM Nursing Education Statewide Planning	

New Mexico Higher Education Department ......\$15,000 NMNEC Website Redesign

#### Shana (Suzanne) Marie Judge

Robert Wood Johnson Foundation	\$1,659,071
Nursing and Health Policy Collaborative at UNM	

#### **AMY JO LEVI**

HH:	S/Health Resources and Services Administration	\$58,985
ACA	A-Nurse Faculty Loan Program	
Uni	versity of California, San Francisco	\$17,264

01	oniversity of california, San Tancisco	
Nu	Nursing Education for Sexual and Reproductive Health	

#### NANCY MORTON

New Mexico VA Health Care System	. \$410,815
VA Nursing Academic Partnerships Intergovernmental Personnel Act	

New Mexico VA Health Care System...... \$404,825 VA Nursing Academic Partnerships Intergovernmental Personnel Act

New Mexico VA Health Care System...... \$259,599 VA Nursing Academic Partnerships Intergovernmental Personnel Act

## BARBARA ANN OVERMAN

HHS/Health Resources and Services Administration ...... \$789,244 Improving Access to Primary Care: Faculty Nurse Practice Partnership with Sandoval County

HHS/Health Resources and Services Administration ...... \$771,600 ACA-Improving Access to Primary Care: Faculty Nurse Practice Partnership with Sandoval County

El Pueblo Health Services	\$150,329
El Pueblo Health Services	

## NANCY RIDENOUR

City of Albuquerque Health Services Coordination	\$133,000
New Mexico Higher Education Department	\$109,952
City of Albuquerque Geriatric Education and Health Maintenance Clinic	\$50,000
New Mexico Primary Care Association	\$8,000

## **BETH LIND RODGERS**

Jonas Center for Nursing Excellence\$10	),000
Jonas Center for Nursing Scholarship Program	

## **STEPHEN VAN ROPER**

ACE Leadership High School	\$54,700
The Board of Architecture, Construction, and Engineering	
Leadership High School	

Service Agreement



<u>Chelin Jamie</u>

#### **COLLEGE OF PHARMACY**

#### LUDMILA BAKHIREVA

----

NIH/National Institute on Alcohol Abuse and Alcoholism ...... \$568,205 Early Indices of Atypical Neurodevelopment with Fetal Alcohol Exposure

NIH/National Institute on Alcohol Abuse and Alcoholism (NIAAA)... \$567,545 Early Indices of Atypical Neurodevelopment with Fetal Alcohol Exposure

NIH/National Institute of General Medical Sciences and NIAAA ..... \$421,922 Interactive Effect of Environmental Exposures and Alcohol in the Navajo Birth Cohort

## Com Dun cum

<b>SCOTT BURCHIEL</b> NIH/National Institute of Environmental Health Sciences
NIH/National Institute of Environmental Health Sciences
NIH/National Institute of Environmental Health Sciences\$26,953 Synergistic Immunosuppression by PAHs and Arsenite
<b>MATTHEW CAMPEN</b> NIH/National Institute of Environmental Health Sciences
HHS/Centers for Disease Control and Prevention
HHS/National Center for Infectious Disease\$188,750 Endothelial Cells as Biosensors for Occupational Cardiovascular Risk
NIH/National Institute of Environmental Health Sciences
University of Washington\$38,297 Cardiovascular Consequences of Immune Modification by Traffic- Related Emissions
PGTi Biosciences, Inc\$27,000 Efficacy Testing of Test Article in a Mouse Model of Pulmonary Arterial Hypertension
University of Texas at El Paso\$19,026 Chronic Particulate Matter Exposure, Inflammation and Atherogenesis in At-Risk Children
ECTTED EDDEL

## **ESZTER ERDEI**

Black Hills Center for American Indian Health ..... \$111,167 Complex Metal Exposure and Immune Status on the Cheyenne River



## **COLLEGE OF PHARMACY (continued)**

## LINDA FELTON

LINDA FELTON Biomedical Research Institute of New Mexico	
Biomedical Research Institute of New Mexico	
LARRY GEORGOPOULOS HealthInsight New Mexico	
Molina Healthcare of New Mexico\$100,000 Telephonic MTM Services	
Ventegra\$40,000 Ventegra Conference Services Agreement	
UNM Medical Group\$30,600 Consultant Pharmacy Services	
Ventegra\$20,000 Ventegra Conference Services Agreement	
New Mexico Health Connections\$14,000 New Mexico Health Connections Contract Review and Consultation	
First Nations Community Healthsource, Inc\$6,000 First Nations Community Healthsource	
PAMELA HALL           NIH/National Institute of Allergy and Infectious Diseases         \$426,936           Apolipoprotein B and Control of S. Aureus Quorum Sensing	
Sandia National Laboratories	
Sandia National Laboratories	
AJNA HAMIDOVIC NIH/National Institutes of Health	
LAURIE HUDSON           NIH/National Cancer Institute	
NIH/National Cancer Institute\$43,880	

NIH/National Institute of Environmental Health Sciences	8,120
Predicting Novel Arsenic Targets in DNA Repair Pathways	

## **JOHNNYE LEWIS**

HHS/Centers for Disease Control and Prevention ......\$1,000,000 ACA-A Prospective Birth Cohort Study Involving Uranium Exposure in the Navajo Nation

#### **JIM LIU**

Massachusetts General Hospital ......\$10,000 General Anesthesia and Alzheimer's Disease Neuropathogenesis

NIH/National Institute of Environmental Health Sciences ......\$5,000 The 8th Conference on Metal Toxicity and Carcinogenesis

## **RENEE-CLAUDE MERCIER**

Hartford Hospital	\$1,800
Multicenter Gram-Negative Surveillance Program	

#### YUBIN MIAO

NIH/National Cancer Institute	. \$453,000
Novel Receptor-Targeting Theranostic Peptides for Prostate Cancer	

## JEFFREY NORENBERG

EFFREY NORENBERG         inviCRO
inviCRO\$57,400 PET/CT Imaging of 68Ga-MLN6907 in Tumor-Bearing Mice, Biodistribution & Whole Blood PK of MLN6907, 111IN Labeling and Shipment
inviCRO\$44,314 SPECT/CT Imaging of 99m Tc-MIBI and 201TL, Co-Injected and of 125-a-Bungarotoxin on a Pharmacologically-Induced Mouse Model Spinal Muscular Atrophy
inviCRO\$42,500 Invicro-Takeda Boston 213Bi Study
inviCRO\$27,292 Invicro-Takeda Boston 213Bi Study
inviCRO
inviCRO
inviCRO\$17,950 SPECT/CT Imaging of 99m Tc-MIBI and 201TI, Co-Injected, SPECR/CT Imaging of 123I-MIBG, and SPECT/CT imaging of 125I-alpha-bungarotoxin in a Mouse Model of Amyotrophic Lateral Sclerosis
inviCRO\$14,447 SPECT/CT Imaging of 125I-Tyrosine in Young and Old Sprague-Dawley Rats
inviCRO\$14,111 Radiolabeling Method Development and SPECT/CT Imaging of 186 Re-sestamibi in Healthy Control Mice
inviCRO\$11,521 DanBIRT Studies

Capitalizing on NSAID Enantiomer Selectivity for Cancer Therapy

inviCRO......\$9,993 Enriched Fumeric Acid and Derivatives Dosing and Tissue Resection Study

inviCRO.....\$8,695 SPECT/CT Imaging of 99mTc-MIBI and 201TI, Co-Injected, and of 125I-abungarotoxin in a Pharmacologically-Induced Mouse Spinal Muscular Atrophy

inviCRO......\$6,749 Radiolabeling Method Development and SPECT/CT Imaging of the 186 Resestamibi in Healthy Control Mice

## DENNIS RAISCH

Medical University of South Carolina.....\$60,674 Southern Oncology Network on Adverse Reactions (SONAR)

## SABRINA SAMUDIO-RUIZ

## LYNDA WELAGE

UNM Medical Group.....\$29,000
Pharmacy Consultant Services

## TRACI MICHELLE WHITE

Mesilla Valley Hospice .....\$35,152 Mesilla Valley Hospice Pharmacist Clinician Agreement

## KRISTINA WITTSTROM

Sandia National Laboratories\$4,200
Isotope Request
Sandia National Laboratories\$2,100

## Poison Control

Isotope Request

## BLAINE BENSON

National Capital Poison Center	. \$123,804
Consulting Services Agreement	

HHS/Health Resources and Services Administration ...... \$108,718 Poison Control Stabilization and Enhancement Program

#### SCHOOL OF MEDICINE

#### DAVID PITCHER

New Mexico Department of Health .....\$1,165,618 Sustain Level I Trauma Center Designation & Improve Financial Viability of Trauma Services

#### **CAROLYN VOSS**

New Mexico Department of Health	\$30,933
Think First Injury Prevention Project	

New Mexico Department of Health\$14,	318
Vasectomy Sterilization Surgical Procedures Project	

New Mexico Department of Health\$8,	624
Vasectomy Sterilization Surgical Procedures Project	

New Mexico Department of Health\$8,6	24
Vasectomy Sterilization Surgical Procedures Project	

## **THOMAS WILLIAMS**

UNM Hospital	\$10,000
Memorandum of Agreement	

#### Anesthesiology

## NICHOLAS LAM

American Society of Anesthesiologists	\$3,000
Glutamate Causes Persistent Allodynia	

## **Biochemistry and Molecular Biology**

#### NATALIE ADOLPHI

## **JEFFREY GRIFFITH**

New Mexico State University ......\$10,000 New Mexico IDeA Networks of Biomedical Research Excellence

#### **MEILIAN LIU**

## KARLETT PARRA

#### MARTINA ROSENBERG

Tennessee Technological University	\$15,000
CAT Dissemination	

#### VALLABH SHAH

Veteran's Administration Medical Center ......\$15,438 Intergovernmental Personnel Act

## **KRISTINA TRUJILLO**

## **Biomedical Research Educational Program**

#### **JENNIFER GILLETTE**

IntelliCyt Corporation	\$5,000
Summer Research Assistantship	

#### **Brain and Behavioral Health Institute**

## **RICHARD CAMPBELL**

New Mexico Governor's Commission on Disability......\$50,000 Survey of Youth Sports Concussion Study

#### **Cancer Research and Treatment Center**

#### WADIH ARAP



## WADIH ARAP (CONTINUED)

NIH/National Heart, Lung and Blood Institute...... \$144,707 Regulation of the Paracine Angiogenic Function of Cardiac Myocytes by Cardiomyocyte PDGFR-a

University of Texas Health Science Center at Houston......\$50,400 Multifunctional Nanoassemblies for Ligand-Directed Imaging and Therapy of Endocrine

## MARIANNE BERWICK

NIH/National Cancer Institute..... \$159,710 Melanoma Prevention: Using the Sun

University of North Carolina at Chapel Hill School of Medicine .......\$88,812 Melanoma RAS/BRAF Mutation: Heterogeneity-Risk Prognosis

University of North Carolina at Chapel Hill School of Medicine .......\$44,895 Melanoma RAS/BRAF Mutation: Heterogeneity-Risk Prognosis

University of North Carolina at Chapel Hill School of Medicine .......\$34,480 The Framingham School Study of Nevi in Children: SONIC II

University of Colorado Denver ......\$10,732 Risk Factors for Nevus Development in Children

University of Colorado Denver ......\$10,626 Risk Factors for Nevus Development in Children

Memorial Sloan Kettering Cancer Center ......\$3,972 Validation of the Use of Whole-Genome Amplified DNA in a Population-Based Study

Memorial Sloan Kettering Cancer Center ......\$3,224 Validation of the Use of Whole-Genome Amplified DNA in a Population-Based Study

#### LINDA SUE COOK

NIH/National Cancer Institute
NIH/National Cancer Institute
Fred Hutchinson Cancer Research Center
Fred Hutchinson Cancer Research Center
Fred Hutchinson Cancer Research Center       \$118,159         Understanding and Preventing Breast Cancer Disparities in Latinas
Fred Hutchinson Cancer Research Center \$108,471

Understanding and Preventing Breast Cancer Disparities in Latinas



Daniel J. Sandoval MS

## **BARBARA DAMRON**

Nancy Floyd Haworth Foundation ......\$16,000 Native American Breast Cancer Biospecimen Education, Needs Assessment and Genetic Counseling

#### ZONEDDY DAYAO

North Central Cancer Treatment Group	\$25,000
NCCTG Subaward Agreement	

#### MARTIN EDELMAN

Eastern Cooperative Oncology Group \$267,688 Eastern Cooperative Oncology Group
New Mexico Cancer Care Alliance\$97,585 Clinical Trial Agreement
New Mexico Cancer Care Alliance\$75,497 Clinical Trial Agreement
New Mexico Cancer Care Alliance\$63,750 Clinical Trial Agreement

#### SARAH FOSTER ADAMS

New Mexico Cancer Care Alliance	\$81,391
Clinical Trial Agreement - Phase III	

#### DEIRDRE HILL

NIH/National Cancer Inst	itute	\$422,296
Towards a Transdisciplinar	y Understanding of Breast Cancer Survival D	Disparities

NIH/National Cancer Institute..... \$258,244 Towards a Transdisciplinary Understanding of Breast Cancer Survival Disparities

Group Health Research Institute ......\$34,523 Risk-Based Breast Cancer Screening in Community Settings

## **RICHARD HOFFMAN**

Georgetown University	\$14,350
Treatment Decisions and Patient-Reported Outcomes in Low-Risk	
Prostate Cancer	

#### HUINING KANG

Gabrielle's Angel Foundation\$	12,500
Statistical Methods for Evaluating Cancer Biomarkers	

## **ANITA KINNEY**

NIH/National Cancer Institute	\$466,342
Bridging Geographic Barriers: Remote Cancer Genetics Counseling for	Rural
Women	

NIH/National Cancer Institute	112,474
NIH/National Cancer Institute\$1 Bridging Geographic Barriers: Remote Cancer Genetics Counseling for Run Women	,

NIH/National Cancer Institute......\$20,300 Impact of Remote Familial Risk Assessment and Counseling

The University of Utah.....\$18,584 Health and Socioeconomic Outcomes for Survivors of Adolescent and Young Adult Cancer

#### **RICHARD LAUER**

New Mexico Cancer Care Alliance	\$129,560
Clinical Trial Phase II	

New Mexico Cancer Care Alliance	\$75,925
Clinical Trial Phase II	

## **FA-CHYI LEE**

New Mexico Cancer Care Alliance	. \$102,004
Clinical Trial Phase III	

## **ELIZABETH MCGUIRE**

New Mexico Cancer Care Alliance	\$96,691
New Mexico Cancer Care Alliance Clinical Trial Phase III	\$91,250

## **SCOTT NESS**

NIH/National Institute of Dental and Craniofacial Research ....... \$424,914 Mutation and Target Genes in Adenoid Cystic Carcinoma

## **JANET OLIVER**

NIH/National Cancer Institute \$35	2,638
Integrative Cancer Nanoscience and Microsystems Training Center	

## Renata Pasqualini

U.S. Department of Defense ......\$2,654,230 IMPACT: Assessing Drug Response and Prognosis in Breast Cancer Using AAVP-Based Targeted Molecular-Genetic

University of Texas Health Science at Houston	\$43,991
Targeting Core	

Rice University\$41,088
Optical Systems for In-Vivo Molecular Imaging of Cancer

## **DULCINEA QUINTANA**

New Mexico Cancer Care Alliance	\$171,763
Clinical Trial Agreement	

6242 624

. ...

#### ASHWANI RAJPUT

New Mexico Cancer Care Alliance Clinical Trial Phase I	\$312,631
New Mexico Cancer Care Alliance Clinical Trial Phase I	\$200,024
Mayo Clinic ACOSOG Services Agreement	\$90,600
Brigham and Women's Hospital	\$66,000

ACOSOG Services Agreement	
Mayo Clinic	\$66,000

ACOSOG Services Agreement

# MELANIE ROYCE

NIH/National Cancer Institute	83
New Mexico Cancer Care Alliance\$101,0 Clinical Trial Phase III	)41

NIH/National Cancer Institute	\$90,000
Minority-Based Community Clinical Oncology Program	

Oregon Health & Science University......\$32,758 Southwest Oncology Group Service Agreement

## MONTASER SHAHEEN



Junzheng Zheng, MIS

New Mexico Cancer Care Alliance\$94,705 Clinical Trial Phase II
Lovelace Biomedical & Environmental Research Institute\$32,828 INST 1117: Biomarkers for Epigenetic Therapy of Lung Cancer
LARRY SKLAR NIH/National Institute of Mental Health
Washington University School of Medicine in St. Louis
Carnegie Mellon University
Oxnard Foundation
ALAN TOMKINSONNIH/National Institute of General Medical SciencesCellular Functions of Eukaryotic DNA Ligases
Lawrence Berkeley National Laboratory\$86,643 Structural Cell Biology of DNA Repair Machines
NIH/National Institute of General Medical Sciences
NIH/National Institute of Environmental Health Sciences\$23,976 Roles of LIg3 and XRCC1 Genes in Genome Stability
CHERYL WILLMAN NIH/National Cancer Institute\$1,808,387 UNM Cancer Center Support Grant
NIH/National Cancer Institute
NIH/National Cancer Institute
New York University
University of Colorado Denver
St. Jude Children's Research Hospital
Memorial Medical Center of Las Cruces \$132,240 Professional Services



Charles LeBlan

## **CHERYL WILLMAN (CONTINUED)**

New Mexico Cancer Care Alliance	
NIH/National Cancer Institute	
St. Baldrick's Foundation	
Cowboys for Cancer Research\$82,753 Cowboys for Cancer Research	
Cowboys for Cancer Research\$82,753 Cowboys for Cancer Research	
NIH/National Cancer Institute\$75,000 Clinical Trials: Reporting Program	
New Mexico Cancer Care Alliance	
Albuquerque Area Indian Health Service	
New Mexico Cancer Care Alliance\$17,247 Services Agreement	
New Mexico Cancer Care Alliance	
BRIDGET WILSON NIH/National Institutes of General Medical Sciences	

Center for the Spatiotemporal Modeling of Cell Signaling

## **Cell Biology and Physiology**

#### OSCAR BIZZOZERO

National Multiple Sclerosis Society..... \$374,695 Impaired Activity of the Proteasome Activator PA28 in MS

NIH/National Institute of Neurological Disorders and Stroke ...... \$226,500 Cellular, Molecular and Functional Characterization of Proteasomes in EAE

NIH/National Institute of Neurological Disorders and Stroke ...... \$186,863 The Pathogenic Role of Protein Aggregation in Inflammatory Demyelination

## Nikki Jernigan

NIH/National Heart, Lung, and Blood Institute	\$339,750
Vascular Smooth Muscle Function in Pulmonary Hypertension	

NIH/National Heart, Lung, and Blood Institute......\$30,200 Vascular Smooth Muscle Function in Pulmonary Hypertension

## **ERIC PROSSNITZ**

NIH/National Cancer Institute..... \$303,925 G Protein-Coupled Estrogen Receptor and Breast Carcinogenesis

#### **BENJIMEN WALKER**

NIH/National Heart, Lung, and Blood Institute ...... \$270,049 Minority Institutional Research Training Program

#### **Center for Infectious Disease and Immunity**

#### **JULIE LOVCHIK**

Sandia National Laboratories ......\$22,500 Development of a Sustainable Anthrax Diagnostic Test for Countering the **Biological Threat** 

#### **MICHELLE OZBUN**

NIH/National Institute of Allergy and Infectious Diseases ...... \$235,966 Biology of Infectious Disease and Inflammation

## **TERRY WU**

DOD/Defense Threat Reduction Agency ......\$2,000,000 Evaluation of Novel Subunit Tularemia Vaccines in Rat & Non-Human Primate Aerosol Infection Models

DOD/Defense Threat Reduction Agency ......\$8,732 Evaluation of Novel Subunit Tularemia Vaccines in Rat & Non-Human Primate Aerosol Infection Models

Sandia National Laboratories ..... \$437,762 Development of a Mesoporous Silica Nanoparticle-Supported Lipid Bilayer Platform for Targeted, Triggered, Sustained and Systemic Delivery of Antibiotics

DOD/Defense Threat Reduction Agency ...... \$417,123 Evaluation of Novel Subunit Tularemia Vaccines in Rat and Non-Human Primate Aerosol Infection Models

#### **Continuing Medical Education**

#### WILLIAM RAYBURN

Astellas Pharma Global Development, Inc. ..... \$387,830 Immunosuppression for Kidney Transplant Recipients: How to Maximize Outcome and Minimize Graft Failure

AstraZeneca Pharmaceuticals, LP ..... \$353,000 Using Evidence-Based Treatment to Optimize Control of Elevated Serum Triglycerides

Alexion Pharmaceuticals, Inc. ..... \$250,000 New Horizons in Kidney Transplant: Preventing Antibody-Mediated Rejection in Sensitized Patients

Novo Nordisk, Inc..... \$250,000 Individualizing Obesity Management: A Personalized Approach to Pharmacologic Medications for Weight Loss and Comorbid Conditions

Astellas Pharma Global Development, Inc. ..... \$151,160 Blending the Science and Art of Medicine in the Individualized Treatment of Metastatic Castration-Resistant Prostate Cancer: Real Cases, Difficult Choices -You Make the Call

Astellas Pharma Global Development, Inc. ..... \$141,600 Antifungal Pharmacology: Practical Considerations to Maximize Therapeutic Benefit and Tolerability

Teva Pharmaceutical Industries, LTD ...... \$125,000 Blending the Science and Art of Medicine in the Individualized Treatment of Metastatic Castration-Resistant Prostate Cancer

Celgene Corporation	\$91,875
Amgen, Inc	\$37,475
PeerView Video-Therapeutic Strategies in Psoriatic Arthritis:	
Focus on New Agents	

Dendreon Corporation ......\$26,160 Blending the Science and Art of Medicine in the Individualized Treatment of Metastatic Castration-Resistant Prostate Cancer

Bayer HealthCare Pharmaceuticals, Inc. ......\$25,000 Assessing the Clinical Implications of Recent and Late-Breaking Data on Hemophilia Management: What's New From Melbourne?

Chinle Comprehensive Health Care Facility\$1,325 Third International Meeting on Indigenous Women's Health
IHS Piñon Health Center
Tsaile Health Center\$275 Third International Meeting on Indigenous Women's Health
NNMC Financial Management Branch\$275 Third International Meeting on Indigenous Women's Health
Lovington Municipal Schools

#### **Dental Medicine**

#### GARY CUTTRELL

New Mexico Higher Education Department	\$1,000,000
Sandoval County Dental Services	\$67,200
Albuquerque Public Schools Dental Hygiene	\$25,000
Artesia General Hospital Dental Anesthesia Services	\$11,136

## **CHARLES TATLOCK**

New Mexico Department of Health	. \$234,887
Basic Oral Health Services	

## **The ECHO Institute**

#### **SANJEEV ARORA**

HHS/Center for Medicare and Medicaid Services ......\$2,806,541 ACA-Project ECHO: A Scalable Model for Increasing Primary Care Capacity

Leona M. and Harry B. Helmsley Charitable Trust ......\$2,170,628 Endocrinology teleECHO Program

Leona M. and Harry B. Helmsley Charitable Trust ......\$2,170,152 Endocrinology teleECHO Program

Leona M. and Harry B. Helmsley Charitable Trust ......\$2,152,912 Endocrinology teleECHO Program

Leona M. and Harry B. Helmsley Charitable Trust ...... \$192,600 Project ECHO Planning Grant

DOD/U.S. Army Medical Command ......\$56,691 Army ECHO: Intergovernmental Personnel Act

DOD/U.S. Army Medical Command ......\$52,444 Army ECHO: Intergovernmental Personnel Act

DOD/U.S. Army Medical Command\$50,648 Army ECHO: Intergovernmental Personnel Act	
DOD/U.S. Army Medical Command\$49,369 Army ECHO: Intergovernmental Personnel Act	
DOD/U.S. Army Medical Command\$46,181 Army ECHO: Intergovernmental Personnel Act	
MIRIAM KAMAROMY University of California, Davis	
Emergency Medicine	
LAURA BANKS           New Mexico Transportation Department	
New Mexico Crime Victims Reparation Commission	
New Mexico Crime Victims Reparation Commission	
New Mexico Department of Health\$65,000 Hospitals and Health Systems Preparedness	
New Mexico Transportation Department\$60,000 Railroad Pedestrian Safety Initiative	
National Association of County and City Health Officials\$20,000 Public Health Action Curriculum for Teens	
National Association of County and City Health Officials\$3,500 Medical Reserve Corps Volunteer Capacity-Building Award	
DARREN BRAUDE DOD/Department of the Air Force	
DOD/Department of the Air Force	
DOD/Department of the Air Force \$294,000 Educational Service Agreement	
Bernalillo County Fire Department\$74,437 <i>Medical Directorship</i>	
Bernalillo County Fire Department\$63,053 <i>Medical Directorship</i>	
Gypsum Medical Associates of New Mexico, PC\$52,080 Professional Services	



## **DARREN BRAUDE (CONTINUED)**

DARREN BRAUDE (CONTINUED)           City of Albuquerque\$27,527           Paramedic Training Program
Gypsum Medical Associates of New Mexico, PC\$26,040 <i>Professional Services</i>
New Mexico Emergency Medical Systems
City of Rio Rancho\$8,000 Professional Services Agreement
Bernalillo County Sheriff's Department\$6,000 Professional Services Medical Director and SWAT Training
Town of Cochiti Lake\$3,450 <i>Medical Director Services</i>
Motion Picture Set Medics, LLC\$2,604 Professional Services
CAMERON CRANDALL Shire Human Genetic Therapies, Inc\$92,531 Clinical Trial Agreement - Phase III
HHS/Centers for Disease Control and Prevention
Massachusetts General Hospital\$3,500 Clinical Trial Agreement
JON KENNETH FEMLING Olive View Medical Center-UCLA\$7,000 EMERGEncy ID NET
ANDREW HARRELL U.S. National Park Service\$24,000 Grand Canyon National Park - EMS Medical Services
New Mexico Department of Homeland Security & Emergency Management\$22,075 Urban Search & Rescue Task Force, Medical Direction
New Mexico Emergency Medical Systems\$5,250 EMS Medical Direction Consortium Field Response Program
U.S. National Parks Service\$4,090 EMS Refresher Training
STEVEN MCLAUGHLIN           New Mexico State Fair         \$49,185           Emergency Medical Services         \$49,185

New Mexico Public Safety Department	\$48,000
Medical Direction	



City of Rio Rancho\$35,000 Medical Director Services
American Medical Response Ambulance Service, Inc
Valencia Regional Emergency Communication Center\$9,000 Medical Director Services
City of Rio Rancho\$4,000 Professional Services
Central New Mexico Community College\$3,504 Medical Director - Professional Services
PRIAN MOORE
BRIAN MOORE New Mexico Department of Health\$50,000 Statewide Emergency Medical Services Medical Direction Project
ROBERT SAPIEN
HHS/Health Resources and Services Administration
HHS/Health Resources and Services Administration
New Mexico Department of Health\$50,000 School Nurse Behavioral Health Training Project
New Mexico Department of Health\$37,003 Telehealth and the Emergency Care of Acutely III or Injured Children: A Pilot Program Aiding Rural and Tribal Facilities to Become Child-Ready
HHS/Health Resources and Services Administration\$19,995 EMS for Children State Partnership
New Mexico Department of Health\$11,105 New Mexico Child Fatality Review Data Organizer
SARA SKARBEK-BOROWSKA
New Mexico Department of Health\$2,531 Helping New Mexico Become Child-Ready: A Pediatric Trauma and Emergency Medicine Course
Family and Community Medicine
KAREN ARMITAGE
Robert Wood Johnson Foundation \$165,000 A Hero for Our Time: Health Extension Health Policy and Health Care
WILLIAM ATHAS
New Mexico Department of Health
Geospatial Capacity Building
Antoinette Benton
New Mexico Department of Health \$472,113 Transdisciplinary Evaluation and Support Clinic
New Mexico Human Services Department         \$169,400           Pre-Admission Screening and Resident Review
New Mexico Human Services Department         \$50,050           Pre-Admission Screening and Resident Review

New Mexico Human Services Department ......\$50,050 Pre-Admission Screening and Resident Review

## JAMES CHEEK

New Mexico Department of Health	\$19,999
CMS Physician Interview Project	

## GAYLE DINE'CHACON

HHS/Indian Health Service	. \$161,536
American Indians Into Medicine	

## DEBORAH HELITZER

University of Texas Health Science Center at Tyler ......\$88,197 Evaluation Core of the Southwest Center for Agricultural Health, Injury Prevention and Education

## MIRIA KANO

Colorado Foundation for Public Health and the Environment ......\$14,993 ACA-New Mexico LGBT Health Improvement Network

#### NIKKI KATALANOS

HHS/Health Resources and Services Administration ...... \$121,796 Physician Assistant in Primary Care

## ARTHUR KAUFMAN

Molina Healthcare of New Mexico	\$442,980
Professional Services	
New Mexico Health Insurance Exchange	\$375.000

New Mexico Health Insurance Exchange	\$375,000
ACA-Health Insurance Exchange Outreach	

Commonwealth Fund ......\$35,000 ACA-Sustainability of the National Primary Care Extension Program

Molina Healthcare of New Mexico ......\$25,000 Care Coordination Services

National Center for Frontier Communities.....\$15,000 National Network for Rural and Frontier Capacity Evaluation and Consultation

Hidalgo Medical Services	.\$15,000
Forward NM Evaluation	

#### SARAH LATHROP

New Mexico Department of Health	. \$698,477
New Mexico Emerging Infections Program	

## LAWRENCE LEEMAN

Anonymous Non-Profit Foundation	\$28,775
Early Training Grant	

## **JULIE LUCERO**

National Congress of American Indians	\$95,672
NARCH VII NCAI: CBPR Dissemination	

## MARTHA COLE MCGREW

New Mexico Children, Youth and Families Department	
Blue Cross Blue Shield of New Mexico\$219,564 Care NM Services	
Bernalillo County Juvenile Detention Center	
UNM Medical Group\$98,425 Center for Reproductive Health Memorandum of Agreement	
First Choice Community Healthcare\$54,080 First Choice Community Healthcare	
New Mexico Corrections Department	
Presbyterian Healthcare Services\$16,200 Professional Services	
First Choice Community Healthcare\$11,718 Professional Services Agreement	
Molina Healthcare of New Mexico\$10,000 <i>Case Management</i>	
IANET DACE DEEVES	

## JANET PAGE-REEVES



East Central Ministries ......\$1,500 ACA-Culturally Appropriate Options for Diabetes Prevention and Care for Low-Income Latinos

## TASSY PARKER

University of Wisconsin	\$29,131
Healthy Children, Strong Families: American Indian Communities	
Preventing Obesity	

#### **VERONICA PLAZA**

Southwest Creations Collaborative	.\$49,000
Hacia la Universidad in APS	

#### **ROBERT RHYNE JR.**

## VALERIE ROMERO-LEGGOTT

HHS/Health Resources and Services Administration	. \$730,259
Health Career Opportunity Program	
HHS/Health Resources and Services Administration	. \$111,764
Mental Behavior Health Academy	

#### **HELENE SILVERBLATT**

HHS/Health Resources and Services Administration	. \$305,010
ACA-New Mexico Area Health Education Centers	

#### FRANCISCO SOTO MAS

Southwest Center for Agricultural Health,
Injury Prevention and Education\$19,967
Health and Safety Issues in Organic Farming: A Qualitative Study

#### **KRISTINE TOLLESTRUP**

HHS/Health Resources and Services Administration	38
New Mexico Department of Health\$9,4 New Mexico Public Health Learning Collaborative	105
NINA WALLERSTEIN NIH/National Institute on Drug Abuse	196
NIH/National Institute on Drug Abuse\$190,2 RezRIDERS Project and Program	203
San Francisco State University\$40,4 Distinguished Visiting Professor Agreement	169
Healthy Native Communities Partnership, Inc\$17,0 Healthy Native Communities Partnership	)91



## Family and Community Medicine (continued)

## **ROBERT WILLIAMS**

NIH/National Institutes of Health ...... \$349,433 Stereotyping in Medical Student Decision-Making: Presence, Origins and Solutions

## **Internal Medicine**

## **ALLEN ADOLPHE**

AbbVie ...... \$466,705 Clinical Trial Agreement Phase III

#### **BINA AHMED**

Hamilton Health Sciences Corp	\$115,932
Clinical Trial Agreement	

# SANJEEV ARORA

American Academy of Pediatrics       \$140,352         Enhancing Child and Youth Epilepsy Care via the ECHO Model
New Mexico Human Services Department \$120,270 Hepatitis C Project
SC Liver Research Consortium, LLC\$29,124 Clinical Trial Agreement Phase IV
Gilead Sciences\$17,820 Clinical Trial Phase III
AbbVie\$7,600 Speaker Agreement
Roche Molecular Systems, Inc\$7,200 <i>Clinical Trial</i>
EDGAR BOEDEKER           DVA/Veteran's Administration Medical Center         \$123,319           Intergovernmental Personnel Act
CRISTIAN GEORGE BOLOGA Givaudan Flavors Corporation

## **STEVEN BRADFUTE**

Los Alamos National Laboratory ......\$90,662 Mosaic Glycoprotein as an Immunogen for a Filovirus Vaccine Candidate

## MARK BURGE

Sanofi US Services, Inc.	. \$188,719
Clinical Trial Phase III	

Sanofi US Services, Inc.	. \$154,767
Clinical Trial Phase III	

#### **MARCOS BURGOS**

New Mexico Department of Health	\$99,073
Tuberculosis Medical Care, Consultation & Education Services	

#### **KATHLEEN COLLERAN**

Novartis Pharmaceuticals Corporation	\$88,972
Clinical Trial Phase III	

#### **RICHARD CROWELL**

Lovelace Respiratory Research Institute ......\$53,580 Factors for Epigenetic Silencing of Lung Cancer Genes

## **RAVI DURVASULA**

Biomedical Research Institute of New Mexico ......\$65,000 Antibody-Based Paratransgenics for Pierce's Disease: Advanced Methods for Transmission Blocking and Environmental Monitoring

#### **MICHELLE HARKINS**

Novartis Pharmaceuticals Corporation	\$28,867
Clinical Trial	

New Mexico Department of Health\$	1,582
School Nurse Training Project	

#### **CARLA HERMAN**

Donald W Reynolds Foundation \$25	0,000
Next Steps in Physicians' Training in Geriatrics	

#### THERESA HEYNEKAMP

Cystic Fibrosis Foundation\$3. CF Care Center Program	5,940
KaloBios Pharmaceuticals, Inc\$3. Clinical Trial Agreement Phase II	2,458
Cystic Fibrosis Foundation\$2 Program for Adult Care Excellence	7,000
The University of Utah	2,000

## **RICHARD HOFFMAN**

Foundation for Informed Me	dical Decision Making	\$30,832
Medical Editor Agreement		

## **MICHELLE IANDIORIO**

University of Colorado Denver Anschutz Medical Campus	\$246,500
New Mexico AIDS Education and Training Center	

#### PATRICIA KAPSNER

Novo Nordisk, Inc \$ Clinical Trial Agreement Phase III	265,281
MannKind Corporation	.\$1,000

#### **DENECE KESLER**

HHS/Health Resources and Services Administration         \$180,000           Radiation Exposure Screening Education Program
Lovelace Respiratory Research Institute\$75,000 Occupational Medicine Services
New Mexico Department of Health\$35,000 Clinical Prevention Initiative Project
HHS/Health Resources and Services Administration\$10,946 Enhance Cancer Screening and Education Program Activities
Johns Hopkins University\$6,000 Development of a Medical Screening Program for Former LANL & SNL Workers
Lovelace Respiratory Research Institute\$6,000 Consulting Services

Honeywell Corporation\$2,	500
Honeywell Aerospace of Albuquerque-Clinician Services	

## **IRENA KING**

Fred Hutchinson Cancer Research Center	\$31,076
TREC Coordination Center	

#### WARREN LASKEY

DVA/Veteran's Administration Medical Center	. \$741,549
VA Interventional Cardiology	

DVA/Veteran's Administration Medical Center ...... \$702,593 VA Interventional Cardiology

## **THOMAS MA**

National Institute of Diabetes and Digestive and Kidney Diseases .... \$299,852 TNF-Alpha Regulation of Intestinal Paracelluar Transport

#### **GREGORY MERTZ**

NIH/National Institute of Allergy and Infectious Diseases	\$549,349
Andes Virus Transmission and Pathoaenesis in Chile	

#### POPE MOSELEY 116

Albuquerque Area Indian Health Service
Technical University of Denmark\$34,363 Professional Services Agreement
Zenith Administrators
QTC Medical Group\$10,750 Second Medical Opinion Evaluations

#### **PRASHANT NIGHOT**

National Institute of Diabetes and Digestive and Kidney Diseases .... \$147,916 Role of the Chloride Channel CIC-2 in Intestinal Tight Junction Barrier Recovery

## **TUDOR OPREA**

Technical University of Denmark Professional Services Agreement	\$26,678
University of Gothenburg Visiting Scientist Agreement	\$25,000
Rosalind Franklin University of Medicine and Science	\$11,665
AstraZeneca Pharmaceuticals, LP Database Support	\$10,000
DOUGLAS PERKINS	\$242,882

NIH/Fogarty International Center ..... \$242,882 Training and Research on Severe Malarial Anemia

NIH/Fogarty International Center ..... \$216,242 Training and Research on Severe Malarial Anemia

Los Alamos National Laboratory ..... \$130,088 Characterize the Emergence of Antibiotic Resistance and Virulence in the Immunocompromised Population

#### ARTI PRASAD

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

The Weil Foundation ......\$10,000 Seventh Biennial Symposium of Integrative Medicine Professionals in the Land of Enchantment

## **ARIEL RIVAS**

U.S. Department of Agriculture ......\$20,000 Systems Biology-Based Analysis of Animal Infectious Diseases Conference

#### MARK ROHRSCHEIB

Post-Doctoral Fellowship

## CULADI

<b>DAVID SCHADE</b> George Washington University
NIH/National Institute of Diabetes and Digestive and Kidney Diseases
Case Western Reserve University\$116,744 Epidemiology of Diabetes Intervention and Complications
Case Western Reserve University\$44,435 Hearing Impairment in Long-Term Type I Diabetes
Case Western Reserve University\$9,690 Epidemiology of Diabetes Intervention and Complications
University of South Florida\$2,000 <i>Type I Diabetes TrialNet</i>
AKSHAY SOOD Miners Colfax Medical Center
NIH/National Institute of Environmental Health Sciences
Miners Colfax Medical Center
KARLA THORNTON         McCune Charitable Foundation\$15,000         The New Mexico Peer Education Project
MARK UNRUH           Baystate Medical Center         \$207,696           ACA-Shared Decision Making and Renal Supportive Care         \$207,696
Dialysis Clinic, Inc\$184,574 DCI Biostatistician
Dialysis Clinic, Inc\$157,594 Predicting Chronic Kidney Disease in an Underserved Population
Dialysis Clinic, Inc\$155,100 DCI Medical Directorship and QA
Dialysis Clinic, Inc\$86,435 Salary Support
Dialysis Clinic, Inc\$60,000 ENac as a Novel Mechanism for Hypertension and Volume Expansion in Type II Diabetes



Lovato and Virginia

#### **Internal Medicine (continued)**

#### **BRUCE WILLIAMS**

## PHILIP ZAGER

#### Molecular Genetics and Microbiology

#### Kiran Bhaskar

NIH/National Institute of Neurological Disorders and Stroke ...... \$330,313 The Role of Inflammasome Signaling in Tauopathies

#### **JUDY CANNON**

#### **BRYCE CHACKERIAN**

Sandia National Laboratories ......\$30,000 Characterization of Nanoparticle-Based Nerve Agent Countermeasures

Sandia National Laboratories ......\$15,000 Characterization of Nanoparticle-Based Nerve Agent Countermeasures

Sandia National Laboratories ......\$10,000 Characterization of Nanoparticle-Based Nerve Agent Countermeasures

#### **VOJO DERETIC**

NIH/National Institute of Allergy and Infectious Diseases .....\$70,715 Pattern Recognition Receptors and Autophagy in Mtb Control in AIDS

#### JEREMY EDWARDS

NIH/National Human Genome Research Institute...... \$450,000 Haplotype Resolved Sequencing Technology

#### CAROLYN MOLD



#### JOHN O'ROURKE

Leidos, Inc\$12,00 Construction of N-Terminal MS2/PP7 Libraries	0
MARY ANN OSLEYNIH/National Institute of General Medical SciencesGenetic Analysis of H2B Ubiquitylation in Yeast	7
<b>MICHELLE OZBUN</b> NIH/National Institute of Dental and Craniofacial Research \$188,75 <i>Targeted Therapy for EGFR Pathway in HPV + HNSCCs</i>	0
NIH/National Cancer Institute\$33,44 Regulation of Human Papillomavirus Replication via Cell Signaling Pathways	1
New Mexico Biopark Society\$12,14 Detection of Elephant Endotheliotropic Herpes Viruses Strains EEHV1A and EEHV1B in ABQ BioPark Elephants	4
Novartis\$3,080 Cyclophilin Inhibition of HPV Infection	С
<b>XUEXIAN YANG</b> American Lung Association	C

## Neurology

#### **COREY FORD**

Clinical Trial Agreement	\$245,813
Novartis Clinical Trial Phase III	\$222,936
Genentech, Inc	\$163,567
Novartis Clinical Trial Agreement Phase II.	\$47,988 I
University of Michigan Purchase Service Agreement	\$3,000

60 45 04 0

#### **BRANKO HUISA**

University of Arizona \$14	7,600
Platelet-Oriented Inhibition in New TIA and Minor Ischemic Stroke	

AstraZeneca Pharmaceuticals, LP ......\$43,090 Clinical Trial Phase III

#### MOLLY KING

Yale University	\$1,212
Insulin Resistance Intervention after Stroke Trial	

#### JIM LIU

NIH/National Institute of General Medical Sciences......\$1,061,222 Integrative Program in CNS Pathophysiology Research

#### LESLIE MORRISON

University of California, San Francisco \$	290,006
Modifier Genes as Biomarkers for Cerebral Cavernous Malformation Prog	ression

University of California, San Francisco.....\$15,165 Modifier Genes as Biomarkers for Cerebral Cavernous Malformation Progression

#### SUROJIT PAUL

NIH/National Institute of Neurological Disorders and Stroke ...... \$327,010 Role of Brain-Specific Tyrosine Phosphatase STEP in Neuroprotection and Death

## JOHN PHILLIPS

The Mind Research Network MRN Medical Director	\$134,549
Pharm-Olam International Clinical Trial Phase III	\$47,962
Pharm-Olam International Clinical Trial Phase III	\$30,976
The Mind Research Network	\$1,207

#### Ranjana Poddar

NIH/National Institute of Neurological Disorders and Stroke ...... \$330,313 Hyperhomocysteinemia and Ischemic Stroke

## **STEFAN POSSE**

Rigshospitalet\$39	,272
Epilepsy by Brain Imaging-Focus on Simultaneous EEG & fMRI	

University of Minnesota ......\$23,224 Magnetic Resonance Spectroscopy of Breast Cancer Using Model-Based Localization

#### GARY ROSENBERG

NIH/National Institute of Neurological Disorders and Stroke ....... \$471,531 Bio-Markers for White Matter Injury in Mixed and Vascular Coanitive Impairment

	Bio-Markers for white Matter injury in Mixea and Vascular Cognitive impairment
	NIH/National Institute of Neurological Disorders and Stroke \$330,313 White Matter Hypoxia in Novel Model of MMP - Mediated Inflammation SHR/SP
	The Mind Research Network
	U.SIsrael Binational Science Foundation
	The Mind Research Network    \$19,443      Administrative Operations
	Eastern New Mexico Medical Center\$5,000 Professional Services
1	IENINIEED ANNI VICKEDS

## JENNIFER ANN VICKERS

New Mexico Department of Health	\$131,875
Children's Medical Services	

#### **Neurosciences**

#### **ANDREA ALLAN**

NIH/National Institute of Environmental Health Sciences .....\$30,214 Epigenetic Changes in the Glucocorticoid Receptor Gene Due to Arsenic Exposure

NIH/National Institute of Mental Health ......\$29,301 The Epigenetic Link Between Environmental Exposure and Adult-Onset Depression

NIH/National Institute of Mental Health ......\$28,501 The Epigenetic Link Between Environmental Exposure and Adult-Onset Depression

NIH/National Institute of Environmental Health Sciences .....\$26,873 Epigenetic Changes in the Glucocorticoid Receptor Gene Due to Arsenic Exposure

#### JONATHAN BRIGMAN

#### LEE ANNA CUNNINGHAM



Kara Leasure

6200 000

#### ERIN MILLIGAN

NIH/National Institute on Drug Abuse......\$321,363 Spinal Neuroimmune Mechanisms Underlying IL-10 Gene Therapy for Pain Control

STC@UNM .....\$25,000 NorBirt & DANBIRT Therapeutics to Control Chronic Neuropathic Pain

## NORA PERRONE-BIZZOZERO

NIH/National Institute on Drug Abuse	\$411,355
Competing Roles of MicroRNAs and RNA-Binding Proteins in Drug Addie	ction

The Mind Research Network......\$55,052 Mining the Genomewide Scan: Genetic Profiles of Structural Loss in Schizophrenia

NIH/National Institute on Drug Abuse.....\$31,710 Competing Roles of MicroRNAs and RNA-Binding Proteins in Drug Addiction

#### **DANIEL SAVAGE**

#### **CLAUDE SHUTTLEWORTH**

NIH/National Institute of Neurological Disorders and Stroke ...... \$315,627 Spreading Depolarizations and Post-Ischemic Injury

NIH/National Institute of Neurological Disorders and Stroke ......\$32,659 Adenosine Receptor Activation in Spreading Depolarization and Ischemic Injury

## CARLOS VALENZUELA

1	IASON PORTER WEICK				
	NIH/National Institute on Alcohol Abuse and Alcoholism				
	NIH/National Institute on Alcohol Abuse and Alcoholism				
	NIH/National Institute on Alcohol Abuse and Alcoholism				
	NIH/National Institute on Alcohol Abuse and Alcoholism				
	NIH/National Institute on Alcohol Abuse and Alcoholism				
	NIH/National Institute on Alcohol Abuse and Alcoholism				

#### JASON PORTER WEICK



Michele Spear, MC/MFCT

## Neurosurgery

## **DENIS BRAGIN**

## ANDREW PHILLIP CARLSON

Edge Therapeutics	 	\$119,557
Clinical Trial Phase I		

#### JEFF HILL

Tarix P	harmaceuticals, LLC	\$66,588
Evalua	tion of Therapeutic Peptides in Acute Stroke and Multiple Scler	osis Models

#### MARC MALKOFF

University of Cincinnati	603
University of Cincinnati\$55,1 Ethnic/Racial Variations of Intracerebral Hemorrhage	24
University of Minnesota\$31,4 Antihypertensive Treatment of Cerebral Hemorrhage	85

## **EDWIN NEMOTO**

Rio Grande Neurosciences, Inc.	\$75,454
PEMF in TBI and CVA and Neuroinflammation	

#### TAMARA ROITBAK

NIH/National Institute of Neurological Disorders and Stroke ...... \$330,313 In-Vivo Inhibition of Specific microRNAs

## CHRISTOPHER TAYLOR

## HOWARD YONAS

Presbyterian Healthcare Services\$1,420,000 Professional Services/Consultations
U.S. Department of Veterans Affairs \$167,133 Provide Neurosurgery Services for NMVAHCS
U.S. Department of Veterans Affairs\$159,174 Provide Neurosurgery Services for NMVAHCS
U.S. Department of Veterans Affairs\$83,566 Provide Neurosurgery Services for NMVAHCS
Health South Rehabilitation Hospital\$36,000 <i>Medical Director</i>

U.S. Department of Veterans Affairs\$27,855 Provide Neurosurgery Services for NMVAHCS
U.S. Department of Veterans Affairs\$26,529 Provide Neurosurgery Services for NMVAHCS
U.S. Department of Veterans Affairs\$26,529 Provide Neurosurgery Services for NMVAHCS
New Mexico Department of Health\$16,860 UNM Pain Center Naloxone Co-Prescription Pilot Project
New Mexico Tumor Registry
CHARLES WIGGINS NIH/National Cancer Institute\$2,644,915 SEER Surveillance, Epidemiology and End Results
NIH/National Cancer Institute\$2,395,196 Core Infrastructure Support for Surveillance, Epidemiology and End Results
NIH/National Cancer Institute\$22,346 SEER Patterns of Care/Quality of Care Study
New Mexico Department of Health\$6,330 Data Surveillance & Tracking Services for DOH BCC and CRC Programs

U.S. Department of Justice.....\$2,000 Radiation Exposure Compensation Program

#### **Obstetrics and Gynecology**

#### **EVE ESPEY**

Anonymous Sponsor Fellowship in Family Planning	\$336,011
Anonymous Non-Profit Foundation Clinic Construction and/or Lease Support	\$250,000
Anonymous Non-Profit Foundation Fellowship	\$97,636
The University of Utah Research Agreement	\$24,570
Association of Professors-Gynecology/Obstetrics	\$12.269

Association of Professors-Gynecology/Obstetrics.....\$12,269 Evaluation of a Simulation-Based Patient Safety Curriculum to Improve Resident Self-Efficacy

## YUKO KOMESU

NIH/National Center for Complementary and Alternative Medicine . \$363,271 Brain-Centered Therapy Versus Medication for Urgency Urinary Incontinence: An RCT

## **ELLEN MOZURKEWICH**

rEVO Biologics, Inc\$4,	,230
Clinical Trial - Phase III	

## **JOSEPH OGBURN**

Alpha Omega Alpha	.\$2,000
Increasing Long-Acting Reversible Contraception: Use With Improved	
Contraception Counseling Among Methadone-Using Women	

## VALERIE RAPPAPORT

Illumina, Inc	305
Clinical Trial Phase III	

## WILLIAM RAYBURN

New Mexico Department of Health \$ Prenatal Medical Services Project	260,100
Planned Parenthood of New Mexico Professional Services	.\$96,200
Albuquerque Area Indian Health Service	.\$66,751

First Choice Community Healthcare\$7	7,162
Midwifery Services	

New Mexico Department of Health	\$15,960
High-Risk Prenatal Care	
Hidalgo Medical Services	\$710

Crownpoint Healthcare Facility\$39	5
Advanced Life Support in Obstetrics	

## **REBECCA ROGERS**

Advanced Life Support in Obstetrics

NIH/National Institute of Child Health and Human Development \$298,988
RCT of Hypnotherapy vs. Tolterodine for OAB: Voiding and Brain Activation Changes

RTI International Pelvic Floor Disorders Network Center Grant (ESTEEM Study)	.\$29,035
Brown University	\$6,395

Tailored Outcomes for Female Urinary Incontinence

## RAMEET HARPAL SINGH

Society of Family Planning Nitrous Oxide for Essure Sterilization Trial	\$70,000
Society of Family Planning Post-Partum IUD Insertion Pain Study	\$68,518
Society of Family Planning Nitrous Oxide for Pain Management of IUD Insertion in Nullipare	

Society of Family Planning\$1,4	182
Post-Partum IUD Insertion Pain Study	

## **Office of the Medical Investigator**

#### **MICHELLE BARRY**

National District Attorneys Association\$2	,700
National District Attorneys Association Faculty Contract	

## WENDY HONEYFIELD

New Mexico Department of Health\$3,433	3
New Mexico Sudden Unexpected Infant Death Registry	

## **EVAN MATSHES**

New Mexico Public Safety Department	\$12,000
Paul Coverdell Forensic Science Improvements Grants Programs	

#### **KURT NOLTE**

Portland State University ......\$16,776 Acute Alcohol Use and Suicide

## LORI PROE

New Mexico Department of Health	\$7,367
New Mexico Violent Death Reporting System	

## **ROSS ZUMWALT**

DVA/Veteran's Administration Medical Center Provide Autopsy Services for POWs	\$75,832
New Mexico Crime Victims Reparation Commission	\$44,546
DVA/Veteran's Administration Medical Center	\$26,091
New Mexico Department of Health New Mexico Sudden Unexpected Infant Death Registry	\$19,285
New Mexico Crime Victims Reparation Commission	\$13,364
U.S. Attorney's Office Expert Witness Testimony for U.S. Attorney	\$10,000

## Orthopaedics

#### THOMAS DECOSTER

Expert Witness
Center for Orthopaedic Trauma\$5,000
Orthopaedic Trauma Fellowship Grant

U.S. Department of Justice.....\$19,995

#### **BURKE GURNEY**

Langford Consulting, Inc\$16,461 Jones Professional Services Agreement
Langford Consulting, Inc\$14,820 Jones Professional Services Agreement
Biomedical Research Institute of New Mexico\$2,621 Exercise Interventions During Voluntary Weight Loss in Obese Older Adults

## **CHRISTOPHER HANOSH**

Stryker Orthopaedics\$1,000	)
Orthopaedic Grand Rounds and Resident Lectures	

#### **ANTONY KALLUR**

The University of Iowa\$1,152
(BrAIST II) Radiographic Status of Subjects and Change in Cobbangle at a
Minimum of 2 Years After Termination from BrAIST

## **ROBERT SCHENCK**

ExplorAbilities, Inc	.\$14,550
Professional Services	

## **GEHRON TREME**

Stryker Orthopaedics AAOS Annual Meeting	10,844
Stryker Orthopaedics Educational Grant - Musculoskeletal Pathology Conference	\$2,771

Stryker Orthopaedics.....\$1,801 Educational Grant - International Pediatric Orthopaedics Symposium to Fund Residents

#### **DANIEL WASCHER**

U.S. Department of Justice\$1 Expert Witness Testimony	8,390
Smith & Nephew, Inc\$1 Educational Grant-Following Support Program	8,000

## Pathology

#### **MICHELLE BARRY**

Intersociety Council for Pathology Information ......\$1,000 Medical Student Interest Group



#### Pathology (continued)

## **ELAINE BEARER**

NIH/National Institute of Mental Health	. \$480,333
Live Imaging of Brain Circuitry in Mouse Models of PTSD	

#### **THERESE BOCKLAGE**

Liedos Biomedical Research, Inc\$37	,841
ARRA-TCGA Tissue Source Site-UNM	

#### **DOUGLAS CLARK**

TriCore Reference Laboratories	.\$2,184,609
United Blood Services Professional Services	\$298,261

#### VITTORIO CRISTINI

National Science Foundation ...... \$422,472 Collaborative Research: Multiscale Modeling of Mammary Gland Development

University of Southern California \$1	06,076
Multi-Scale Complex Systems Transdisciplinary Analysis of Response to The	rapy

Methodist Hospital Research Institute......\$70,724 Center for Transport Oncophysics (PSOC)

Methodist Hospital Research Institute......\$49,638 Center for Systematic Modeling of Cancer Development

SK Infrared LLC\$49,000	)
Dynamic Infrared Imaging of Skin Cancer	

Methodist Hospital Research Institute.	\$39,938
Center for Oncophysics: PSOC Expansion	

The Methodist Hospital.....\$33,987 Predictive Physical Modeling of Chemotherapeutic Drug Transport and Tumor Response

University of Texas Health Science Center at Houston......\$13,581 Texas Center for Cancer Nanomedicine

Methodist Hospital Research Institute......\$8,486 Center for Oncophysics: PSOC Expansion

## KENDALL CROOKSTON

Blood Systems Foundation	\$82,620
Transfusion Medicine Fellowship	

## **TRACY IRENE GEORGE**

Phenotyping and Cell Signaling Pathways in Human Mast Cells and Mast Cell Disease



## PATTI GRAVITT

University of Maryland .....\$14,833 Vaginal Microbiota, Immune Responses and Vulvovaginal Symptoms During Menopuase

#### **GLYNNIS INGALL**

Crownpoint Healthcare Facility	\$38,400
Laboratory Directorship	
, ,	
Crownpoint Healthcare Facility	\$3,200
Laboratory Directorship	

#### SARAH LATHROP

New Mexico Department of Health	. \$172,285
ACA-New Mexico Emerging Infections Program	

## **DIANE LIDKE**

NIH/National Institute of General Medical Sciences	\$285,264
Single Molecule Imaging to Quantify FCRI Signaling Dynamics	

Human Frontier Science Program ...... \$110,000 Nano-Mechano-Biology: Spatiotemporal Remodeling of Membrane Nanoplatforms Under Mechanical Forces

University of Texas Health Science Center at Houston......\$25,012 Mechanisms of Apoptotic Calcium Signaling

NIH/National Institute of General Medical Sciences .......\$18,542 Single Molecule Imaging to Quantify FCRI Signaling Dynamics

#### KURT NOLTE

Research Institute at Nationwide Children's Hospital	.\$10,000
Pediatric CT Scan Study	
Harris County Institute of Foronsis Sciences	¢1 220

Harris County Institute of Forensic Sciences ......\$1,220 Computer-Assisted Identification Project

## LARRY SKLAR

Detection and Usage of Novel Compounds to Stimulate NLRP3 Inflammasome Activity

#### **ANGELA WANDINGER-NESS**

NIH/National Institute of General Medical Sciences	. \$634,872
Academic Science Education and Research Training	

NIH/National Cancer Institute.....\$71,444 Capitalizing on NSAID Enantiomer Selectivity for Cancer Prevention and Therapy

NIH/National Institute of Dental and Craniofacial Research ......\$31,146 OFD1 as Constituent of a Multimeric Protein Complex in Odontoblast Primary Cilia

#### COSETTE WHEELER

NIH/National Institute of Allergy and Infectious Diseases ..........\$2,597,969 Interdisciplinary HPV Prevention Center

NIH/National Institute of Allergy and Infectious Diseases ......\$2,545,494 Epidemiology and Prevention Interdisciplinary Center for Sexually Transmitted Infections

#### **BRIDGET WILSON**

Los Alamos National Laboratory \$113,500	1
Three-Dimensional Molecular Tracking of IgE-Fc3RI in Live Cells	

## **STEPHEN YOUNG**

Nano MR		. \$174,050
Specimen Acquisition Stud	y to Evaluate the NanoMR Pathogen Detec	tion System

## **ROSS ZUMWALT**

New Mexico Department of Health	\$25,000
Public Health Preparedness and Response to Bioterrorism	
U.S. Attorney's Office	\$20,000

New Mexico Crime Victims Reparation Commission ......\$8,909 Grief Intervention for Homicide Survivors

## **Pediatrics**

## SHIRLEY ABRAHAM

SHIRLEY ABRAHAM Oregon Health & Science University\$34,250
Regional Hemophilia Network-Mountain States
University of Colorado\$29,520 Preventions of Complication in Hemophilia Through HTCS
American Thrombosis and Hemostatis Network\$17,500 ATHN Data Quality Counts
University of Colorado Denver\$13,080 Prevention of Complication in Hemophilia Through HTCS
KOH BOAYUE           Children's Hospital of Philadelphia         \$127,500           Clinical Trial Agreement         \$127,500
St. Baldrick's Foundation\$52,500 St. Baldrick's Infrastructure Grant
Children's Hospital of Philadelphia\$20,000 Clinical Trial Phase III
Children's Hospital of Philadelphia\$15,200 <i>Clinical Trial</i>
Children's Hospital of Philadelphia\$10,000 Health Effects After Anthracycline and Radiation Therapy: Dexrazone and Prevention of Anthracycline
Children's Hospital of Philadelphia\$6,000 Clinical Trial Phase II
Children's Hospital of Philadelphia\$3,800 Health Effects after Anthracycline and Radiation Therapy: Dexrazone and Prevention of Anthracycline
FRANCINE CAFFEY           New Mexico Department of Health         \$9,337           Summer Asthma Institute Project         \$9,337
LORETTA CORDOVA DE ORTEGA New Mexico Department of Health
Molina Healthcare of New Mexico\$60,000 In-Home Assessments
Children's National Medical Center\$40,000 Professional Services
Gerald Champion Regional Medical Center\$25,000 Professional Services
San Juan Regional Medical Center\$25,000 Professional Services Agreement
Taos Clinic for Children and Youth       \$10,000         Professional Services via Telemedicine
PHC-Las Cruces, Inc\$5,610 Professional Services/Consultations
Northern Navajo Medical Center\$4,800 Pediatric Genetics Clinics
Mountain View Regional Medical Center\$2,500 Professional Services
ANDREA DUNCAN

## ANDREA DUNCAN

New Mexico Department of Health	\$118,000
Developmental Care Continuity Program	



New Mexico Department of Health\$70,640 Developmental Care Continuity Program
BETH GOENS Ben Archer Health Center, Inc
Randy Heidenreich           New Mexico Department of Health         \$116,472           CMS Newborn Screening         \$116,472
ALBERTA KONG Del-Jen, Inc
JANE MCGRATH New Mexico Human Services Department\$1,100,000 Envision New Mexico: The Initiative for Child Healthcare Quality
New Mexico Department of Health \$292,857 School-Based Health Center Health Provision in the Schools
New Mexico Human Services Department
New Mexico Department of Health \$200,000 Office of School and Adolescent Health
New Mexico Department of Health
Molina Healthcare of New Mexico
New Mexico Department of Health\$75,000 <i>Teen Outreach Program</i>
New Mexico Department of Health\$52,000 Race to the Top Early Learning Challenge
New Mexico Public Education Department\$50,000 GRADS Program
AcademyHealth
New Mexico Department of Health\$5,000 Zip to Health Resource Guides
ESMERALDA ELISA MORALES HHS/Health Resources and Services Administration \$333.642

## ES

HHS/Health Resources and Services Administration	. \$333,642
New Mexico Pediatric Pulmonary Center	

HHS/Health Resources and Services Administration ...... \$292,866 New Mexico Pediatric Pulmonary Center



Mauricio Tohen, MD, DrPH, MBA

## **ESMERALDA ELISA MORALES (CONTINUED)**

Cystic Fibrosis Foundation\$38,550	
Cystic Fibrosis Center of New Mexico-Cystic Fibrosis Registry	

## **ROBIN OHLS**

NIH/National Institute of Child Health and Human Development \$434,95
Brain Imaging and Developmental Follow-Up of Infants Treated with
Erythropoietin

University of Washington	\$34,540
Preterm Erythropoietin Neuroprotection Trial	

University of Washington	.\$30,000
Preterm Erythropoietin Neuroprotection Trial	

## **RENEE RITA ORNELAS**

New Mexico Crime Victims Reparation Commiss	sion\$19,542
Adolescent Continuity Clinic for Education on Self	f Safety

New Mexico Crime Victims Reparation Commission ......\$5,863 Adolescent Continuity Clinic for Education on Self Safety

## MARK PEDROTTY

Hidalgo Medical Services\$	25,000
Tele-Medicine Services	

#### **HENGAMEH RAISSY**

PPD Development \$221,446 Clinical Trial Phase III	
National Jewish Health \$164,984 Clinical Trial Phase IV	
National Jewish Health	
Vertex Pharmaceuticals Incorporated\$59,213 Clinical Trial Phase III	
AstraZeneca Pharmaceuticals, LP\$53,941 <i>Clinical Trial Phase III</i>	
PPD Development\$50,101 Clinical Trial Phase III	
Abbott Laboratories, Inc\$28,557 <i>Clinical Trial Phase III</i>	
Vertex Pharmaceuticals Incorporated\$16,832 Clinical Trial Phase III	
Parexel International\$4,312 Clinical Trial Phase III	

#### MARY RAMOS

New Mexico Department of Health	\$25,000
New Mexico School Nurse Workforce Survey	

## **BETSY VANLEIT**

Nova Southeastern University\$2,	500
Amputation and Prosthetic Evidence-Based Medicine	

#### **KRISTI WATTERBERG**

NIH/National Institute of Child Health and Human Development ... \$286,230 Cooperative Multicenter Neonatal Research Network

Research Triangle Institute	. \$104,968
Cooperative Multicenter Neonatal Research Network	

Research Triangle Institute	\$104,968
Cooperative Multicenter Neonatal Research Network	

## **STUART WINTER**

New Mexico Department of Health	\$15,000
Children's Medical Services-Camp Enchantment	

#### **CRAIG WONG**

National Institute of Diabetes and Digestive and Kidney Diseases .... \$555,246 Pediatric Investigation for Genetic Factors Linked with Renal Progression

The Children's Mercy Hospital	\$56,723
Ckid Clinical	

#### **Pediatrics Center for Development & Disability**

## TANYA BAKER-MCCUE

New Mexico Human Services Department \$ <i>Mi Via</i>	900,000
New Mexico Division of Vocational Rehabilitation\$ DVR Partners for Employment	400,000
New Mexico Division of Vocational Rehabilitation\$ DVR Project Search	150,000
CODULE DEDTRAND	

#### SOPHIE BERTRAND

New Mexico Children, Youth and Families Department\$1,607,516 ACA-Home Visiting Training	
New Mexico Children, Youth and Families Department\$1,508,000 Family Child Care	
New Mexico Children, Youth and Families Department	
New Mexico Department of Health\$30,400 Statewide Transition Coordination	
New Mexico Children, Youth and Families Department\$16,500 Reflective Supervision NM Tiered Quality Rating & Improvement System Team	
ANTHONY CAHILL New Mexico Human Services Department	
Through Effective Support Services	

New Mexico Governor's Commission on Disability
New Mexico Developmental Disabilities Planning Council
CATHERINE MCCLAIN New Mexico Department of Health\$3,313,822 DOH Autism Programs
New Mexico Department of Health
New Mexico Department of Health\$1,269,750 Early Childhood Evaluation Program
New Mexico Department of Health \$878,931 <i>MFCMP Program</i>
HHS/Health Resources and Services Administration
Navajo Nation\$598,647 Growing in Beauty Program Therapy Services
HHS/Administration for Children and Families
New Mexico Department of Health \$513,600 Race To The Top Early Learning Challenge
New Mexico Department of Health \$496,415 Employment Institute
New Mexico Public Education Department \$478,548 Contract
New Mexico Department of Health
Utah State University
New Mexico Department of Health\$158,000 Race to the Top Early Learning Challenge
New Mexico Public Education Department
New Mexico Department of Health\$20,000 DDSD Statewide Training Database
Association of Maternal and Child Health Programs\$20,000 New Mexico Act Early State Systems Team
MARCIA MORIARTA New Mexico Children, Youth and Families Department
New Mexico Children, Youth and Families Department
New Mexico Children, Youth and Families Department
New Mexico Children, Youth and Families Department
New Mexico Children, Youth and Families Department \$200,000 Infant Mental Health Community of Practice
New Mexico Children, Youth and Families Department
New Mexico Children, Youth and Families Department\$25,000 Infant Mental Health Treatment
PAT OSBOURN U.S. Department of Education

Rio Rancho Public Schools\$31,130 <i>Rio Rancho Consultations</i>
Santa Fe Public Schools\$25,652 Santa Fe Consultations
Portales Municipal School District\$9,246 Portales Consultations for Autism
Las Vegas City Schools\$7,886 Las Vegas Schools-Consultation on Autism
Lovington Municipal Schools\$6,281 Lovington Schools Consultation
Santa Rosa Consolidated Schools\$3,980 Santa Rosa Consultations
Albuquerque Public Schools\$3,300 Albuquerque Public Schools Consultations
Hagerman Municipal Schools\$2,280 Hagerman Schools Consultation

## **Pediatrics Prevention & Population Sciences**

## **THERESA CRUZ**

New Mexico Human Services Department\$75,916 CHILE Plus, Social Marketing and Statewide SNAP-ED Evaluation
New Mexico Coalition of Sexual Assault Programs, Inc\$65,219 Sexual Violence Prevention Statewide Coordination
New Mexico Coalition of Sexual Assault Programs, Inc\$65,219 Sexual Violence Prevention Statewide Coordination
New Mexico Department of Health\$43,000 Prevention Research Center Sexual Violence Prevention Technical Assistance Project
New Mexico Department of Health\$14,000 Prevention Research Center Sexual Violence Prevention Technical Assistance Project
SALLY DAVIS
HHS/Centers for Disease Control and Prevention
HHS/Centers for Disease Control and Prevention
New Mexico Department of Health \$127,857 ACL School-Based Health Centers Projects

United Way ...... \$120,000 Promoting Healthy Lives (ACL Teen Centers)



## SALLY DAVIS (CONTINUED)

New Mexico Department of Health	\$75,000
Teen Outreach Program	
Te/heiiilee Community School	ć 42 072

To'hajiilee Community School .....\$43,873 Primary Care Provider for To'hajiilee Community School

New Mexico Primary Care Association ......\$20,000 Integrated Medicaid Enrollment

New Mexico Department of Health ......\$20,000 Implementing Evidence-Based Recommendations that Promote Physical Activity To Reduce the Risk for Developing Chronic Diseases, Including Certain Cancers in Communities

#### **GLENDA FALLAS**

New Mexico Human Services Department ..... \$127,785 CHILE Plus, Social Marketing and Statewide SNAP-ED Evaluation

#### JESSICA ROSE GOODKIND

NIH/National Institute on Minority Health and Health Disparities ... \$384,288 Addressing Social Determinants to Reduce Refugee Mental Health Disparities

#### PATRICIA KEANE

New Mexico Human Services Department ..... \$555,189 CHILE Plus, Social Marketing and Statewide SNAP-ED Evaluation

Con Alma Health Foundation ......\$7,500 Evaluating Benefit Acceptance Policies in New Mexico's Farmers' Market

#### SHIRAZ MISHRA

NIH/National Institutes of Health ...... \$252,921 New Mexico's Future Researchers Exploring Science and Health (SEPA)

#### DHHS/National Center for Chronic Disease Prevention and

Health Promotion ...... \$225,000 Low-Dose CT Lung Cancer Screening: Informed Decision Making and Smoking Cessation

#### **JANET PAGE-REEVES**

Bernalillo County	\$15,480
Community Food Needs Assessment	

#### LINDA PEÑALOZA

New Mexico Department of Health Youth Risk Resiliency Survey Project	\$125,761
New Mexico Department of Health Youth Risk Resiliency Survey Project	\$47,999
New Mexico Public Education Department	\$18,952

New Mexico Public Education Department......\$6,000 **FSHF** Evaluation



#### **Psychiatry**

## CHRISTOPHER ABBOTT

The Mind Research Network ...... \$123,572 Multimodal Imaging of Neuropsychiatric Disorders: Mechanisms & Biomarkers (COBRE II)

#### **CHERYL AINE**

The Mind Research Network .......\$60,918 Multimodal Imaging of Neuropsychiatric Disorders: Mechanisms & Biomarkers (COBRE II)

The Mind Research Network ......\$39,855 Multimodal Imaging of Neuropsychiatric Disorders: Mechanisms & Biomarkers (COBRE II)

## DEBORAH ALTSCHUL

New Mexico Children, Youth and Families Department ...... \$496,834 CYFD Systems of Care

New Mexico Behavioral Health Collaborative/Human Services Department	
San Felipe Pueblo\$69,668 San Felipe Home Visiting	
Anonymous Sponsor\$43,000 Home Visiting	

New Mexico Children, Youth and Families Department ......\$26,619 CYFD Home Visiting

#### JEANNE BEREITER

New Mexico Children, Youth and Families Department	\$63,100
Rural Psychiatric Services-Child Fellowship Training	

#### MICHAEL BOGENSCHUTZ

University of Southern Denmark Project Elderly	\$1,233,492
NIH/National Institute on Drug Abuse Comparing Interventions for Opioid-Dependent Patients Presentin Emergency Departments	
Heffter Research Institute	\$199,276

Effects and Therapeutic Potential of Psilocybin in Alcohol Dependence

## **CAROLINE ALBERTA BONHAM**

Albuquerque Area Indian Health Service
Hidalgo Medical Services
Hidalgo Medical Services
New Mexico Human Services Department \$142,348 Behavioral Health Services
Mescalero Apache Schools\$55,000 Mescalero SBHC
NIH/National Institute of Mental Health\$7,500 NIMH Outreach Partnership

#### JUAN BUSTILLO

The Mind Research Network	. \$260,759
Multimodal Imaging of Neuropsychiatric Disorders: Mechanisms & Bio	omarkers
(COBRE II)	

## **ANNETTE SUSAN CRISANTI**

OptumHealth New Mexico	1,072
OptumHealth New Mexico\$2 Totah Behavioral Health	5,000

## **ERIK ERHARDT**

## SARAH FELDSTEIN EWING

NIH/National Institute on Alcohol Abuse and Alcoholism ......\$49,499 Neuroimaging Mechanism of Change in Psychotherapy for Addictive Behaviors

#### DAVID GRAEBER

#### PAULA HENSLEY

Forest Research Institute\$	5,000
Clinical Trial Agreement	

#### **DINA HILL**

Yale University	.\$20,000
Development of a Dyslexia Screening Test	

## **BRIAN LOUIS ISAKSON**

OptumHealth New Mexico\$7	8,639
Jail Diversion Project	

OptumHealth New Mexico	.\$50,000
Military, Veteran and Family Support Services	

#### **AVRON KRIECHMAN**

New Mexico Department of Health	\$125,000
Telehealth School-Based Health Centers	

## STEPHEN LEWIS

Feinstein Institute for Medical Research	\$114,585
Feinstein Institute for Medical Research	\$19,715
RAISE	

Feinstein Institute for Medical Research
RAISE

#### **RODNEY MCNEASE**

Albuqu	Jerque Healthcare for the Homeless, Inc	\$25,000
SCI Serv	vices	

#### **RASHMI SABU**

HHS/Substance Abuse and Mental Health Services Administration.. \$397,969 ACTION-Garret L. Smith Grant Federal Program Evaluation

HHS/Substance Abuse and Mental Health Services Administration ... \$388,488 ACTION

#### JULIE GRIFFIN SALVADOR

OptumHealth New Mexico	. \$188,200
NIDA TCA Total Community Approach	
OptumHealth New Mexico	. \$138,763

Treatment for Pregnant and Postpartum Women	

OptumHealth New Mexico	\$52,000
Total Community Approach	

## HELENE SILVERBLATT

#### **ROBERT THOMA**

#### MAURICIO TOHEN

Sangre de Cristo Community Health Care Partnership ......\$4,000 Sangre (SBIRT) Psychiatric Consultation



Emily Chasteen, MS

#### **CLAIRE ELIZABETH WILCOX**

NIH/National Institute on Alcohol Abuse and Alcoholism .....\$12,601 Neural Mechanisms of Change During Treatment of Alcohol Use Disorders with Prazosin

## MARIA YELLOW HORSE BRAVEHEART

#### Radiology

#### **GARY HATCH**

The Forensic Sciences Foundation, Inc.....\$2,940 Detection of Neural Injury in Shaken Infants: A Pilot Investigation Using Post-Mortem Magnetic Resonance Imaging

#### PHILIP HEINTZ

Sandia National Laboratories\$2,	095
Earth Core CT Scans	

#### LOREN KETAI

#### DANIEL SANDOVAL

HHS/Indian Health Service\$2,9	20
Radiation Protection Survey and Review	

## **PHILIP WIEST**

New Mexico Department of Health	83,081
U.S. Department of Veterans Affairs VA Radiological and Nuclear Medicine Diagnostic and Therapy Services	\$44,816
U.S. Department of Veterans Affairs	\$21,953



Margie Peña and Brandi Fink, PhD

## **Research Protections**

#### **RICHARD LARSON**

U.S. Department of Veterans Affairs	
New Mexico VA Health Care System\$90,620 Institutional Review Board Services	
U.S. Department of Veterans Affairs\$16,764 Institutional Review Board Services	
Surgery	

#### ARUP DAS

NIH/National Eye Institute	
New Mexico Commission for the Blind \$140,000 Emergency Medical Eye Care Program	
New Mexico Commission for the Blind \$125,000 Physician Administrative & Consultative Services	
U.S. Department of Veterans Affairs	
New Mexico Commission for the Blind\$60,000 Emergency Eye Care Program	
U.S. Department of Veterans Affairs\$35,339 Phosphate: A Novel Target in Early Diabetic Retinopathy	
DUSANKA DERETIC NIH/National Eye Institute	
WANIL SHETTY           New Mexico Department of Health         \$6,000           CMS Cleft Palate Clinics         \$6,000	

## UNIVERSITY OF NEW MEXICO HOSPITAL

## **STEVE MCKERNAN**

City of Albuquerque\$1 Primary Care Program	151,050
City of Albuquerque\$1 Gang Prevention Program	134,000
New Mexico Children, Youth and Families Department\$1 Home Visits and Education	100,000

New Mexico VA Health Care System \$100,000 ASAP Methadone Treatment Services
New Mexico Department of Health\$85,000 Breast and Cervical Cancer Early Detection Program
New Mexico Department of Health\$36,800 UNM Hospitals Hospital Preparedness
HHS/Indian Health Service\$29,225 Inpatient Psychiatric Hospital Services
Albuquerque Area Indian Health Service       \$25,000         IHS Inpatient Psychiatric Services Agreement
New Mexico Department of Homeland Security & Emergency Management\$21,257 Professional Services
New Mexico Department of Health\$21,000 UNM Hospitals Hospital Preparedness
New Mexico Department of Health\$19,000 Carrie Tingley Hospital Preparedness
New Mexico Department of Health\$19,000 Behavioral Health Hospital Preparedness
Las Cruces Public Schools\$5,000 Neuropsychological Evaluation
New Mexico Children, Youth and Families Department\$5,000 Home Visits and Education

## **RODNEY MCNEASE**

 Albuquerque Public Schools
 \$8,000
 Behavioral Health Assessment and Treatment for Students

## UNIVERSITY OF NEW MEXICO MEDICAL GROUP

#### **ANTHONY MASCIOTRA**

Albuquerque Area Indian Health Service	\$25,000
Provider Services Agreement	

## UNM SANDOVAL REGIONAL MEDICAL CENTER

#### **KEVIN ROGOLS**

New Mexico Department of Health\$51, SRMC Trauma	,702
Sandoval County	000
Sandoval County\$14, Sandoval County DWI and Prevention Program	000

# RESEARCH MEANS HOPE



## **Donate to Research**

Our research programs are focused on critical health problems affecting New Mexicans and bridge the gap to more rapidly deliver discoveries to the clinical setting. Your contribution will help us meet new challenges and seek solutions to help people lead longer and healthier lives. The UNM Foundation can accommodate almost any giving interest, including health research in general, a particular disease category, or one of our signature programs.

Please contact Bill Uher for more information bill.uher@unmfund.org or 505.277.4078

#### **RESEARCH ANNUAL REPORT 2014**

Managing Editor Michael Haederle

Design, Layout and Illustration Sara Mota and Peter Arathoon

Contributing Editors Furhana Afrid; John Arnold; Cindy Foster; Luke Frank; Kara McKinney; Michele Sequeira

Photography Furhana Afrid; Peter Arathoon; Rebecca Gustaf; Sara Mota Photograph on page 3 by Kim Jew Photography

> *Videography* Furhana Afrid; John Arnold; Rebecca Gustaf

© Copyright 2014 University of New Mexico Health Sciences Center Office of Research hsc.unm.edu/som/research

Published by the HSC Communications and Marketing Department

Special thanks to the Office of Pre-Award for their assistance



Office of Research 1 University of New Mexico MSC08-4560, BMSB B-61 Albuquerque, New Mexico 87131-0001

(505) 272-6950 • FAX (505) 272-8738 hsc.unm.edu/research



# UNM HEALTH SCIENCES CENTER

**Research Annual Report 2014** 

