

WSU Spokane Grant and Contract Award Summary

July 1 – September 30, 2016

NEW & TRANSFER AWARDS

Dedra Buchwald (PI); Clemma Muller; Ka’imi Sinclair; Sean Murphy; Amanda Boyd – Elson S. Floyd College of Medicine/College of Nursing/Community Health; Murrow College of Communication

National Institutes of Health; National Institute on Minority Health and Health Disparities
“Native-Controlling Hypertension And Risk through Technology (Native-CHART)”

This five-year grant provides funding to establish, in partnership with the University of Colorado Denver, a new collaborative research center aimed at reducing health risks related to high blood pressure in U.S. Native populations. The center will draw in expertise and solicit input from community organizations, tribes, and researchers across the country to pursue intervention studies that will use technologies, including electronic medical records, text messaging, wearable physical activity monitors, and home blood pressure monitors.

Dedra Buchwald (PI); Ka’imi Sinclair – Elson S. Floyd College of Medicine/College of Nursing/Community Health
National Institutes of Health; National Heart, Lung, and Blood Institute

“Diet Intervention for Hypertension: Adaptation and Dissemination to Native Communities”

This concerns grant funding being transferred from the PI’s previous institution. The grant funds a project to adapt an existing diet intervention designed to reduce high blood pressure for use in Native populations and disseminating it to health professionals, with the goal of reducing Native patients’ health risks related to high blood pressure. Partners in this project include the Fred Hutchinson Cancer Research Center’s Division of Public Health Sciences, the University of Oklahoma Health Sciences Center, the Indian Health Resource Center of Tulsa, Native Health of Spokane, and Medstar Health Research Institute Laboratory.

Dedra Buchwald (PI); Lonnie Nelson – Elson S. Floyd College of Medicine/College of Nursing/Community Health
University of Washington/U.S. Department of Health & Human Services, Agency for Healthcare Research & Quality

“The University of Washington Patient Centered Outcomes Research Partnership (PCORP)”

This is a subaward of a new grant that funds a partnership between WSU and the University of Washington to develop an online, interdisciplinary training on comparative effectiveness research and patient-centered outcomes research. The training will be provided to 24 trainees from partner organizations in Native American, Alaska Native, and rural populations. The ultimate goal is to develop a partner-driven model for a Patient-Centered Outcomes Research Partnership to help reduce population health disparities, especially in rural and Native populations.

Dedra Buchwald (PI) – Elson S. Floyd College of Medicine/Community Health
University of Oklahoma/National Institutes of Health

“‘Food Resource Equity and Sustainability for Health’ or ‘Fresh’”

This is a subaward for a study that will quantify the food environment of the Osage Nation of Oklahoma and examine relationships between the reservation food environment and the health of tribal citizens. The study will also assess the impact of a tribally led community gardening intervention on vegetable and fruit intake, food insecurity, body mass index, and blood pressure among Osage families.

Dedra Buchwald (PI) – Elson S. Floyd College of Medicine/Community Health
University of Washington/National Institutes of Health

“Collaborative to Improve Native Cancer Outcomes”

This subaward funds support provided by researchers in WSU’s Partnership for Native Health to a collaborative project by the University of Washington and the Black Hills Center for American Indian Health. The goal of the project is to establish the Collaborative to Improve Native Cancer Outcomes, an NIH Center for Native Population Health Disparities aimed at improving cancer health outcomes and quality of life for American Indian/Alaska Native populations.

Zhaokang Cheng (PI) – College of Pharmacy

National Institutes of Health; National Heart, Lung, and Blood Institute

“Promoting Chemoresistance in the Heart”

The goal of the study funded by this grant is to reduce the toxicity to the heart of certain chemotherapy drugs, including doxorubicin. Common side effects of these anti-cancer drugs include life-threatening conditions such as cardiomyopathy and heart failure. Cheng will be studying how a protein known as cyclin-dependent kinase inhibitor p21 may reduce the cardiotoxicity of doxorubicin by preventing cell death in cardiac muscle cells.

Zachary Hamilton (PI) – Dept. of Criminal Justice & Criminology

Spokane County Superior Court

“Developing a Validated Pretrial Risk Assessment Tool”

This contract provides funding for WSU to help the Spokane County Superior Court create and validate a customized pretrial risk assessment tool for defendants booked into the Spokane County jail. The tool will help the court assess the risk of recidivism to support decision-making on the release and community supervision of defendants as they await their trial.

Zachary Hamilton (PI); Amelie Pedneault – Dept. of Criminal Justice & Criminology

Washington State Department of Corrections

“Evaluation of the Washington State Department of Corrections Second Chance Act Continuum of Care Program”

This contract funds an evaluation of the Washington State Department of Corrections Continuum of Care Program, which is designed to help transition offenders back into the community through transition specialist known as a Community Corrections Officer. The research team will compare various outcomes—including community sanctioned jail/prison days, reconvictions, and costs—between a group of offenders that participated in the Continuum of Care program and a group that did not.

James Krueger (PI); Sandip Roy; Ping Taishi – Elson S. Floyd College of Medicine; School of Electrical Engineering & Computer Sciences

National Institutes of Health; National Institute of Neurological Disorders and Stroke

“TNF signaling methods initiating in vitro sleep-like states”

This grant funds a two-year study based on earlier research on a protein known as tumor necrosis factor (TNF) alpha, which found that it is a sleep-regulating substance that can elicit a sleep response in small networks of brain cells. This study will explore the underlying mechanism of this phenomenon. This research will contribute new knowledge to the hypothesis that sleep may be a local response in the brain (i.e., parts of the brain may be asleep while others are not), rather than a whole-brain state. The work may have future implications for sleep medicine and the treatment of epilepsy, traumatic brain injury, and other central-nervous system disorders impacted by sleep.

Sue Marsh (PI) – College of Pharmacy

American Physiological Society

“Exercise Rx for Student Pharmacists”

This grant funds a project to develop an online course in exercise prescription for students enrolled in the Doctor of Pharmacy program in the WSU College of Pharmacy. The course would teach future pharmacists to prescribe exercise to patients who have conditions for which exercise is an effective and recommended treatment or therapy, such as diabetes, obesity, hypertension, and high cholesterol. This is especially critical in rural and underserved areas, where pharmacists are often the only health care providers in regular contact with patients. The course will be the only one of its kind in a U.S. pharmacy school and will be consistent with a joint initiative by the American College of Sports Medicine and the American Medical Association known as Exercise Is Medicine,[®] which is focused on primary care physicians and other health care providers.

Sterling McPherson (PI); Matt Layton; Joann Dotson; Michele Shaw – Elson S. Floyd College of Medicine/ College of Nursing

Ringful Health/National Institutes of Health

“Neonatal Abstinence Syndrome (NAS) Reference and Decision Support Tool”

This contract provides funding for WSU to assist Ringful Health in developing an interactive education program and bedside decision tool for nurses related to Neonatal Abstinence Syndrome, a group of problems that occur in newborns who were exposed to addictive illegal and prescription drugs while in the womb.

Lonnie Nelson (PI) – College of Nursing/Community Health

University of Washington/National Institutes of Health

“Harm-reduction treatment for homeless adults with alcohol-use disorders (HaRT-A)”

This subaward provides funding for WSU investigators to assist with the development, implementation, and pilot testing of a harm-reduction intervention for currently and formerly homeless adults with alcohol-use disorders. The intervention is geared towards improving alcohol use, health, and quality-of-life outcomes.

Shannon Panther (PI – College of Pharmacy

Community Pharmacy Foundation

“Fostering Leadership for Achieving the Institute for Health Improvement (IHI)”

This funds WSU’s share in a collaborative project with the University of Washington to offer a comprehensive training program designed to help pharmacists implement patient care services that promote the Institute for Health Improvement Triple Aim goals. The Triple Aim goals are to simultaneously improve the health of the population; enhance the experience and outcomes of patients; and reduce the per capita cost of care. Student pharmacists will have a chance to take leadership courses taught at WSU and UW and be partnered with community pharmacists interested in participating in the program. Mini-grants are available to help pharmacists launch services.

Jean-Baptiste Roulet (PI) – College of Pharmacy

National Institutes of Health; National Center for Complementary and Integrative Health

“2016 International Conference on Plant Sterols, Health & Diseases”

This grant provided funding for an international conference on plant sterols, health, and diseases held in Winnipeg, Canada, in September 2016. Plant sterols are substances that occur naturally in small amounts in many grains, vegetables, fruits, legumes, nuts, and seeds. They lower blood cholesterol and thus help reduce the risk of cardiovascular events.

Ka’imi Sinclair (PI); Lonnie Nelson – College of Nursing/Community Health

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

“Strong Men, Strong Communities: Cultural Tradition to Improve Native Men's Health”

This is funding transferred from the PI’s previous institution for a project to develop the Strong Men, Strong Communities program. The program provides a culturally appropriate approach to reducing the risk of diabetes in American Indian men, who experience type 2 diabetes at much higher rates than other racial and ethnic groups in the U.S. The investigators will study the effectiveness of the intervention in three American Indian communities—the Seneca Nation (New York), Mille Lacs Band of Ojibwe (Minnesota), and the Indian Health Board of Minneapolis (Minnesota)—as compared to waitlisted control groups

John Tomkowiak (PI) – Elson S. Floyd College of Medicine

Empire Health Foundation

“Advancing Commercialization Opportunities in the University District”

This project provides funding for the Elson S. Floyd College of Medicine to hire an executive project manager to provide strategic planning and project management to advance commercialization opportunities within Spokane’s University District.

Ana Zamora (PI) – Community Health

Robert Wood Johnson Foundation

“Secondary data analysis of risk factors for type 2 diabetes in American Indian and Alaska Native adolescents”

This grant funds an analysis of existing study data to look at risk factors for type II diabetes in American Indian and Alaska Native adolescents; determine what proportion of type II diabetes can be ascribed to each risk factor; and explore patterns of body mass index over time and to what extent these patterns affect other risk factors for type II diabetes. The data for this study comes from the National Longitudinal Study of Adolescent to Adult Health, which includes the largest cohort of American Indian and Alaska Native adolescents in the country.

Hui Zhang (PI); Du Min – College of Pharmacy; College of Agricultural, Human & Natural Resource Sciences

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

“Mechanism of Chronic Alcohol Consumption-induced Cancer-Associated Cachexia”

This grant funds a study that looks at the relationship between chronic alcohol consumption and cancer-associated cachexia, a syndrome characterized by progressive loss of body weight that accounts for up to 30 percent of all cancer deaths. Data suggest that alcohol not only increases the incidence of cancer, but also decreases the survival of cancer patients, especially those who have the types of cancer that cause cachexia. In this study, the researcher will try to uncover the molecular mechanism by which chronic alcohol consumption contributes to cachexia. This work may ultimately lead to the development of new therapeutic approaches for the treatment of cancer and the improvement of quality of life in alcoholics with cancer.

AWARDS FOR ONGOING WORK

(Renewal, continued, and supplemental funding for projects awarded previously)

Salah-Uddin Ahmed (PI) – College of Pharmacy

National Institutes of Health; National Institute of Arthritis and Musculoskeletal and Skin Diseases

"RANTES/CCL5 mediated tissue remodeling in RA"

This is supplemental funding for a project aimed at developing safer, more cost-effective new therapies for rheumatoid arthritis. As part of this project, Ahmed will look at a protein known as RANTES/CCL5 (Regulated on activation, Normal T expressed and secreted chemokine ligand 5), which plays a role in progressive cartilage and bone erosion. He will determine the molecular mechanism by which this happens and look for substances/natural products that can inhibit this process and prevent the progression of rheumatoid arthritis.

Dedra Buchwald (PI); Astrid Suchy-Dicey – Community Health

University of Washington/National Institutes of Health

“Alzheimer's Disease Research Center”

This is renewal funding for a subaward of an NIH center grant to establish a satellite core of the Alzheimer's Disease Research Center in Seattle. The WSU team will provide assistance in this project, which will recruit participants of the Strong Heart Stroke Study to examine Alzheimer's disease and its consequences in about 100 elder American Indians. The Strong Heart Stroke Study is a follow-up study to the Strong Heart Study, a large longitudinal cohort study examining cardiovascular disease and its risk factors in American Indians.

Dedra Buchwald (PI) – Community Health

University of Minnesota/National Institutes of Health

“National Research Mentoring Network for a Diverse Biomedical Workforce”

This is a subaward that provides renewal funding for Dr. Buchwald to co-lead the Professional Development Core of the National Research Mentoring Network for a Diverse Biomedical Workforce. The Professional Development Core will convene grant writing workshops twice a year for 20 or more participants, focusing on projects in underserved or rural communities.

**Dedra Buchwald (PI); Ka'imi Sinclair – Elson S. Floyd College of Medicine/College of Nursing/Community Health University of Colorado at Denver/National Institutes of Health
“Native Elder Research Center”**

Native elders are at greater risk for numerous acute as well as chronic illnesses, have less access to needed care, and are slower to seek care, leading to complications. This grant provides renewal funding for WSU's efforts to collaborate with the University of Colorado at Denver (UCD) to close these gaps and increase the participation of Native people in related research through UCD's Native Elder Research Center.

**Dedra Buchwald (PI) – Community Health University of Oklahoma/National Institutes of Health
“Tribal Health and Resilience in Vulnerable Environments Study THRIVE”**

This is a subaward renewal for a study aimed at assessing food insecurity among Native Americans and increasing the availability and intake of vegetables and fruits in convenience stores in two tribal nations of Oklahoma. The study outcomes will inform the development of a multimedia manual to guide food environment changes among tribes nationally.

**Dedra Buchwald (PI) – Elson S. Floyd College of Medicine/Community Health National Institutes of Health; National Institute of Diabetes and Digestive and Kidney Diseases
“WSU Urologic Chronic Pelvic Pain Syndromes Discovery Center”**

This is continued funding for a discovery center to study the underlying causes of urologic chronic pelvic pain syndromes. The center collaborates in the Multi-Disciplinary Approach to the Study of Chronic Pelvic Pain (MAPP) Research Network. The goal of the center is to conduct multidisciplinary, multi-site, basic, translation, and clinical research on urologic chronic pelvic pain syndromes.

**Weihang Chai (PI) – Elson S. Floyd College of Medicine National Institutes of Health; National Institute of General Medical Sciences
“Mechanisms of Fork Restart in Response to Genotoxic Stress”**

This is continued funding for a study of the potential role of CST protein complex in preserving genome stability. Genome stability is threatened by environmental exposure to genotoxins, which stress and sometimes stall the process by which DNA replicates. This can lead to damage in the form of a high frequency of changes and rearrangements of DNA sequences in cells—known as genome instability—which can lead to cancer and has also been linked to certain neurodegenerative diseases. Recent studies have shown that deficiencies in the CST complex—which consists of three genes known as Ctc1, Stn1 and Ten1—impair the restarting and repair of stalled DNA replication. The hypothesis of this study is that CST may somehow help facilitate replication and prevent breakage of DNA in fragile sites. The study may provide new insights into how cells counteract DNA damage caused by genotoxin-induced replication stress and has the potential to lead to improved screening for diseases linked to mutations in the genes in the CST complex, including type 2 diabetes, heart disease, pulmonary fibrosis and two rare conditions with aging-related symptoms—Coats plus syndrome and dyskeratosis congenita.

Cynthia Corbett (PI); Kenn Daratha; Sean Murphy; Sterling McPherson; Dennis Dyck – College of Nursing/College of Medicine

**National Institutes of Health; National Institute on Aging
“Chronic Care Management Model Translation to Multi-morbid Aging Adults at FQHCs”**

This is continued funding for a study that tests the effectiveness of the Washington Department of Social and Health Services' chronic care management model in patients with multiple chronic conditions, such as diabetes and heart disease. Researchers are looking at whether the intervention increases patients' abilities to manage their own conditions and prevents hospitalizations, as well as the intervention's cost effectiveness for this population. The project will advance knowledge about community partnerships and best practices for health homes to provide patient-centered, team-based care in a way that empowers patients and results in more effective use of health care resources.

Michael Ebinger (PI) – University Center for Innovation

***U.S. Department of Commerce; Economic Development Administration
“EDA University Center at Washington State University”***

This is continued funding for the operation of an Economic Development Administration (EDA) University Center at Washington State University. Based in Spokane, the center makes available university resources to the public to promote economic development in Washington state, western Idaho, and northern Oregon. It cultivates innovation and supports commercialization by providing technical assistance to small businesses, startups, and communities; conducting applied research on the market viability of products and services that drive small businesses and communities; and assisting distressed areas within the service region by identifying areas of potential economic development and helping to develop that potential into sustainable jobs.

Janet Edwards (PI); Gary Varrella; Trevor Lane; Michael Jensen; Brian Brandt; Lauren Hrnirirk; Linda McLean; Pamela Watson; Jana Ferris; Caroline Backman – WSU Extension

***National 4-H Council/US Department of Justice; Office of Juvenile Justice and Delinquency Prevention (OJJDP)
“4-H National Mentoring Program Year 5”***

This is supplemental grant funding for the WSU Extension 4-H National Mentoring Program, which will replicate the 4-H Tech Wizards afterschool youth mentoring program in eleven counties—Kitsap, Klickitat, Pierce, Spokane, Ferry, Pend Oreille, Snohomish, Clallam, Lewis, and Wahkiakum counties and on Joint Base Lewis-McChord. Community sites will serve underrepresented, underserved school-aged youth in economically disadvantaged communities. Goals of the project are to reduce school dropout rates, improve academic performance; increase skills in science, technology, engineering, and mathematics; promote continued education and career development; and reduce juvenile delinquency; and promote stronger community connections for youth and their families. Three counties will replicate the Youth and Families with Promise program serving Tribal communities within the Colville Reservation and underserved at-risk audiences in Grant and San Juan counties.

Marcos Frank (PI) – Elson S. Floyd College of Medicine/Sleep and Performance Research Center

***National Institutes of Health; National Institute of Mental Health
“Non-Neuronal Regulators of Sleep”***

This is continued funding for a study of the potential role of gliotransmission—chemical signaling between glia and neurons in the brain—in sleepiness and impaired cognitive functioning after sleep loss. The study could contribute to new ways to combat excessive daytime sleepiness and insomnia, as well as attention, learning, and memory problems associated with sleep loss.

K Michael Gibson (PI) – College of Pharmacy

***National Institutes of Health; National Institute of Neurological Disorders and Stroke
“Placebo-Controlled Phase II Trial of SGS742 (GABAB receptor antagonist) in Succinic Semialdehyde Dehydrogenase (SSADH) Deficiency, a Disorder”***

This is supplemental funding for a clinical trial to test the effectiveness of the experimental drug SGS742 on succinic semialdehyde dehydrogenase (SSADH) deficiency, an inherited disorder with characteristics of autism and epilepsy. SSADH is involved in breaking down a neurotransmitter known as GABA (gamma-aminobutyric acid), which prevents the brain from being overloaded with too many electrical signals. SSADH deficiency leads to an increase of GABA and a related molecule called gammahydroxybutyrate (GHB), particularly in the central nervous system. SGS742 targets a specific GABA receptor in the brain. The study may lead to better treatment for SSADH deficiency and related disorders that involve GABA metabolism.

Janessa Graves (PI); Patricia Butterfield; Celestina Barbosa-Leiker; Julie Postma; Gail Oneal – College of Nursing Oregon Health and Sciences University/National Institute for Occupational Safety and Health

“Total Worker Health among New Nurses: An Instrument Development Study”

This is supplemental grant funding from the Oregon Healthy Workforce Center at Oregon Health and Sciences University under its Total Worker Health research program, which is supported by the National Institute for Occupational Safety and Health. It funds a pilot project to investigate nurses’ perception of risks related to total worker health.

Zachary Hamilton (PI) – College of Arts and Sciences, Department of Criminal Justice and Criminology
Washington State Department of Corrections
“DOC WSU Interagency Agreement”

This is renewal funding for the research partnership between the Washington State Department of Corrections and the WSU Department of Criminal Justice and Criminology. The contract provides for joint funding of a PhD-level graduate research assistant to manage, organize and prepare data to support research projects and to respond to grant solicitations as they evolve, based on the parties’ collaborative efforts.

Jae Kennedy (PI) – College of Nursing, Dept. of Health Policy and Administration
U.S. Department of Health and Human Services; National Institute on Disability, Independent Living, and Rehabilitation Research
“Collaborative on Health Reform and Independent Living”

This is continued grant funding for a project to create a Collaborative on Health Reform and Independent Living. The collaborative brings together disability advocates and researchers from WSU and three other institutions to evaluate the impact of the 2010 Patient Protection and Affordable Care Act on the physical, psychological, and economic well-being of working-age adults with disabilities. The researchers will analyze data from existing surveys as well as conduct new phone and Internet-based surveys to gather data from health care consumers with disabilities and directors of Centers of Independent Living. Partner institutions in this project are the University of Kansas, George Mason University, and the Independent Living Research Utilization program at TIRR Memorial Hermann Hospital.

Michael McDonell (PI); Dedra Buchwald; John Roll – Elson S. Floyd College of Medicine/Community Health
National Institutes of Health; National Institute on Alcohol Abuse and Alcoholism
“Contingency Management Treatment of Alcohol Abuse American Indian People”

This is continued grant funding for a study of the use of a culturally acceptable contingency management intervention to encourage and support abstinence from alcohol abuse among American Indians and Alaska Natives. The study covers individuals from three tribes living on two reservations who receive services at an urban Indian health care facility. Contingency management is an intervention that uses incentives to reward positive behaviors.

Michael McDonell (PI); Dedra Buchwald; John Roll – Elson S. Floyd College of Medicine/Community Health
National Institutes of Health; National Institute on Alcohol Abuse and Alcoholism
“Contingency Management Treatment of Alcohol Abuse American Indian People – Diversity Supplement”

This is funding under the Research Supplements to Promote Diversity in Health Related Research Program, which aims to improve the diversity of the research workforce by recruiting and supporting students, postdoctorates, and eligible investigators from underrepresented groups. This diversity supplement provides funding for graduate student Katherine Hirchak—a descendant of the Eastern Shoshone Tribe located on the Wind River Indian Reservation in central Wyoming—to help conduct the research study described in the previous listing. The Wind River reservation is one of two reservations included in the study.

Michael McDonell (PI); Sean Murphy – Elson S. Floyd College of Medicine/Community Health; College of Nursing, Dept. of Health Policy and Administration
WA State Dept. of Social and Health Services; Department of Behavioral Health and Recovery/
U.S. Department of Health and Human Services; Substance Abuse and Mental Health Services Administration
“First Episode Psychosis Evaluation”

This is a renewal of a grant that funds activities related to the evaluation of the Washington State Department of Behavioral Health and Recovery’s first episode psychosis program in Yakima County. WSU leads the quantitative evaluation of the program and is working with the University of Washington to conduct the qualitative evaluation. The first episode psychosis program was launched to enhance the recognition of early signs and symptoms of psychosis so that effective treatment can be started promptly.

Lonnie Nelson (PI); Dedra Buchwald – College of Nursing/Elson S. Floyd College of Medicine/Community Health University of New Mexico/National Institutes of Health

“Rhythm and Timing Exercises for Cerebrovascular Disease in American Indians”

This is renewal funding for a project that involves a study to determine whether culturally adapted interactive metronome therapy can improve cognitive function among older American Indians with cerebrovascular disease. Interactive metronome is a form of behavioral therapy that attempts to improve cognitive functioning through mass-practice of simple, repetitive millisecond timing motor tasks—such as clapping hands or tapping feet—in time with a set beat. Through visual and auditory feedback, interactive metronome addresses processing speed, attention, and immediate and delayed memory, all of which can be affected by cerebrovascular disease.

Julie Postma (PI); Karen Colorafi; Michele Shaw – College of Nursing Patient-Centered Outcomes Research Institute (PCORI)

“Advancing Patient-Centered Research in the Puget Sound Asthma Coalition”

This award builds on work completed for a previous PCORI grant to improve the quality of life for those affected by asthma in the Puget Sound region. The goal of this new project is to increase patient-centered research generated in the Puget Sound Asthma Coalition by strengthening the governance infrastructure of the coalition to support patient-centered research; strengthening the communication infrastructure of the coalition to engage parents of patients in research; expand and mature research partnerships; and develop comparative effectiveness research questions.

Barbara Richardson (PI); Janet Purath; Dawn DePriest; Tamara Odom-Maryon; Brenda Bray; Megan Willson; Catrina Schwartz; April Davis – College of Nursing; College of Pharmacy; Program in Nutrition & Exercise Physiology

U.S. Department of Health and Human Services/Substance Abuse and Mental Health Services Administration “Spokane SBIRT Student Training”

This grant provides funding for a program to provide students pursuing health professions degrees on the WSU Spokane Health Sciences campus with training to recognize and treat substance use disorders as part of their clinical experiences. The program will provide training to health professions students in a variety of disciplines, including students in WSU’s nursing, pharmacy, nutrition and exercise physiology programs; EWU’s occupational therapy and social work program; and UW’s MEDEX physician assistant and WWAMI medical education programs.

Jiyue Zhu (PI); Shuwen Wang – College of Pharmacy National Institutes of Health; Office of the Director

“Development of a mouse strain with human-like telomerase regulation”

This is continued funding for a project that involves telomeres—the protective ends of chromosomes—which have been the subject of many studies on aging and cancer. Telomeres in human cells get progressively shorter upon successive cell divisions, serving as an aging clock. Cells from some other organisms, including mice, do not have telomeres that shorten over time, which has been a barrier to the use of mouse models to address many fundamental questions in human aging and cancer. The goal of this project is to develop new mouse strains with human-like telomere length that can be used as an improved model for studying human aging and cancer.